3GPP TSG-RAN WG2 Meeting #119 electronic R2-2xxxxxx

Online, August, 2022

Source: RAN2 Chairman (MediaTek)

Title: Agenda

# AT-Meeting Email / Offline Discussion List, Main Session

Discussions with Deadline **Schedule 1**:

A **first round** with **Deadline for comments W1 Friday Aug 19th 1400 UTC** to settle scope what is agreeable etc

A Final round with **Final deadline W2 Thursday Aug 25th 1200 UTC** to settle details / agree CRs etc.

For all discussions: Additional deadlines check points etc if needed are defined by the Rapporteur of each discussion respectively. In case some parts of an email discussion need more time, doesn’t converge, need on-line treatment, then please contact the chair.

* [AT119-e][000] Organizational Main (Chair)

 Scope: Opening and closing of the meeting, Treat AIs 1 & 2, LSes that do not need actions. Anything going beyond other discussions can be raised, for the meeting or Main session.

 Deadline: EOM

Discussions [001] – [005] were used for Pre-discussions.

* [AT119-e][006][NR1516] Stage-2 Corrections (OPPO)

 Scope: Treat R2-2208190, R2-2208191, R2-2208192, R2-2207131, R2-2207134, R2-2207879, R2-2207735, R2-2208414, R2-2208418. Determine agreeable parts, For agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs

 Deadline: Schedule 1

* [AT119-e][007][NR1516] RRC Conn Control I (Nokia)

 Scope: Treat R2-2208270, R2-2208271, R2-2207258, R2-2207259, R2-2207260, R2-2207263, R2-2207264, R2-2207265, R2-2207266, R2-2207942, R2-2206918, R2-2207550, R2-2207551, R2-2207552, R2-2207553, R2-2207603, R2-2207604, R2-2207605, R2-2207606, R2-2207139, R2-2207140, R2-2207142, R2-2207143, Determine agreeable parts, For agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs, LS out if applicable

 Deadline: Schedule 1

* [AT119-e][008][NR1516] RRC Conn Control II (ZTE)

 Scope: Treat R2-2208474, R2-2208476, R2-2208553, R2-2208550, R2-2208551, R2-2208552, R2-2208579, R2-2208580, R2-2208581, R2-2207400, R2-2207401, R2-2208402, R2-2208403, R2-2208691. Determine agreeable parts, For agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs, LS out if applicable

 Deadline: Schedule 1

* [AT119-e][009][NR1516] RRC Conn Control III (Huawei)

 Scope: Treat R2-2206930, R2-2207502, R2-2207503, R2-2207504, R2-2207158, R2-2207159, R2-2207160, R2-2207157, R2-2208905, R2-2208058, R2-2208059, R2-2208473. Determine agreeable parts, For agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs, LS out if applicable

 Deadline: Schedule 1

* [AT119-e][010][NR1516] RRC Other (vivo)

 Scope: Treat R2-2207547, R2-2207548, R2-2207549, R2-2208265, R2-2207611, R2-2207612, R2-2208337, R2-2208338, R2-2207257, R2-2207615, R2-2207616, R2-2207617, R2-2207618, R2-2207560, R2-2207568, R2-2207574, R2-2208346, R2-2208347, R2-2208348. Determine agreeable parts, For agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs, LS out if applicable

 Deadline: Schedule 1

* [AT119-e][011][NR1516] RRC LTE Overheating Misc and Idle (Ericsson)

 Scope: Treat R2-2208202, R2-2208203, R2-2207575, R2-2207576, R2-2207577, R2-2208207, R2-2208208, R2-2207357, R2-2207358, R2-2208209, R2-2208210, R2-2208211, R2-2208140, R2-2207540, R2-2207558, R2-2207559 Determine agreeable parts, For agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs, LS out if applicable

 Deadline: Schedule 1

* [AT119-e][012][NR1516] UE capabilities (MediaTek)

 Scope: Treat R2-2206911, R2-2208501, R2-2208502, R2-2208503, R2-2208504, R2-2207640, R2-2207641, R2-2207049, R2-2207085, R2-2207086, R2-2207094, R2-2207095, R2-2207113, R2-2207114, R2-2208027, R2-2208028, R2-2207331, R2-2207332, R2-2208505, R2-2208506. Determine agreeable parts, For agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs, LS out if applicable

 Deadline: Schedule 1

* [AT119-e][013][NR17] RRC I (Ericsson)

 Scope: Treat R2-2207776, R2-2208654, R2-2207267, R2-2207002, R2-2207006, R2-2207013, R2-2208141 (if available), and R2-2208133 (MINT in [6.24.3])

 Determine agreeable parts, For agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs, LS out if applicable

 Deadline: Schedule 1

* [AT119-e][014][NR17] UE caps Main (Intel)

 Scope: Treat R2-2206957, R2-2206971, R2-2207276, R2-2207277, R2-2207962, R2-2207849, R2-2207971, R2-2207972, R2-2208507, R2-2208508, R2-2208509. Take into account ALL relevant incoming LSes. Determine agreeable parts and capture in CRs. Merge WI specific R17 UE caps draft CRs, endorsed in the Wi specific sessions.

 Intended outcome: Report, UE caps Mega CRs (agreed in the end), LS out if applicable

 Deadlines: Acc to Rapporteur. Online CB if needed. If needed, additional optional session W3 can be used.

* [AT119-e][015][NR17] Gap Coordination (MediaTek)

 Scope: Take online agreement into account, determine where to capture, and reflect this in a CR. Treat remaining tdoc/proposals, if anything agreeable, reflect in CR

 Intended outcome: Report, Agreed CR(s)

 Deadline: EOM (offline only, if possible)

* [AT119-e][016][IAB17] Stage-2 (vivo)

 Scope: Treat R2-2207784, R2-2208463, R2-2208604, R2-2208643,

 Determine agreeable parts, For agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs,

 Deadline: Schedule 1

* [AT119-e][017][IAB17] Control Plane (Ericsson)

 Scope: Treat R2-2206929, R2-2206935, R2-2207190, R2-2207783, R2-2208642, R2-2208101,

 Determine agreeable parts, For agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs, Reply LS if applicable

 Deadline: Schedule 1

* [AT119-e][018][IAB17] MAC (Samsung)

 Scope: Await online, Take into account online progress. Treat remaining parts R2-2208907, R2-2207188, R2-2207625, R2-2207782, R2-2208100, R2-2208102,

 Determine agreeable parts, For agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs

 Deadline: Schedule 1

* [AT119-e][019][IAB17] BAP (Huawei)

 Scope: Treat R2-2207701, R2-2207189, R2-2207402

 Determine agreeable parts, For agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs

 Deadline: Schedule 1

* [AT119-e][020][NR17] TEI Corrections (vivo)

 Scope: Treat R2-2207607, R2-2207608, R2-2207609, R2-2207610, R2-2207529, R2-2208372. Determine agreeable parts. For Agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs

 Deadline: Schedule 1

* [AT119-e][021][UDC] UDC corrections (Samsung)

 Scope: Treat R2-2207940, R2-2208205, R2-2208587. Determine agreeable parts. For the agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs (if any)

 Deadline: Schedule 1

* [AT119-e][022][NR17] DC Location Report (vivo)

 Scope: Treat R2-2206951, R2-2207613, R2-2207135, R2-2207136, R2-2207138, R2-2207614, R2-2208370, R2-2208371, Determine agreeable parts. For the agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs (if any), LS out (if applicable)

 Deadline: Schedule 1

* [AT119-e][023][NR17] FR2 BW classes (Nokia)

 Scope: Treat R2-2208510, R2-2208511, R2-2207974, R2-2207975, R2-2207973,

 Determine agreeable parts. For the agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs (if any), LS out (if applicable)

 Deadline: Schedule 1

* [AT119-e][024][NR18] FS\_REDCAP\_Ph2 option feasibility (Ericsson)

 Scope: Treat R2-2206967, R2-2208568, R2-2207623. Identify the points that require RAN2 reply, and identify agreeable or possible/tentative replies. Pave the way for online agreements.

 Intended outcome: Report, Draft LS out.

 Deadline: Ready for online CB W2 Friday

* [AT119-e][025][NR18] Protection of SI (Samsung)

 Scope: Ph1: Treat R2-2206976, R2-2207028, R2-2208460, R2-2208482, R2-2208625, Collect Comments, determine possible agreements and discussion points, progress the LS accordingly

 Ph2: Take into account online progress, agree reply LS out.

 Intended outcome: Ph1 Report, Draft LS out. Ph2 Approved LS

 Deadline: Ph2 EOM (offline only)

* [AT119-e][026][NR18] UL Tx Switching (NTT Docomo)

 Scope: This is an initial discussion. It may be difficult to make firm agreements, but it may be possible to converge on initial assumptions, possibilities on the table. Take into account R2-2208327, R2-2208324, R2-2208107, R2-2208481, Identify on a high level the main RAN2 impacts for the UL Tx switching schemes across up to 3 or 4 bands. Identify discussion points for future meetings, including UE capability and RRC configuration related signaling (Note: strive for RAN1/2 design agnostic with the number of bands, i.e., common design between 3 and 4 bands).

 Intended outcome: Report

 Deadline: Ready for online CB W2 Tuesday

 CLOSED

* [AT119-e][027][NPN] NPN corrections (ZTE)

 Scope: Treat R2-2207163, R2-2207501, R2-2208624. Determine agreeable parts. For agreeable parts, agree CRs

 Intended outcome: Report, Agreed CRs

 Deadline: Schedule 1

Added Wed W1

* [AT119-e][001][feMIMO] MAC centric (Samsung)

 Scope: 1) Based on online progress and discussion, continue identify agreeable parts (include
2) MAC CR capturing agreements and agreeable parts.

 Intended outcome: Report, RRC CR

 Deadline deadlines set by rapporteur. CB possibilities W2 tue, wed, fri

* [AT119-e][002][feMIMO] RRC centric (Ericsson)

 Scope: 1) Based on online progress and discussion, continue identify agreeable parts.
2) LS out to RAN1, 3) RRC CR capturing agreements and agreeable parts.

 Intended outcome: LS out, Report, RRC CR

 Deadline: LS out; can do interactive discussion asap, other deadlines set by rapporteur. CB possibilities W2 tue, wed, fri

* [AT119-e][003][ePowSav] RLM/BFD relaxation (vivo)

 Scope: Based on online progress and discussion, continue identify agreeable parts and impacts.

 Intended outcome: Report (with agreements), offline if possible.

 Deadline: W2 Wednesday (can CB W2 Thu if required)

* [AT119-e][004][ePowSav] Subgrouping/PEI (MediaTek)

 Scope: Based on online progress, discussion, R2-2208909 and referenced input, continue identify agreeable parts and impacts. No Need to include Stage-2 etc.

 Intended outcome: Report (with agreements), offline if possible.

 Deadline: W2 Wednesday (can CB W2 Thu if required)

* [AT119-e][028][ePowSav] PDCCH Skip (Ericsson)

 Scope: Treat R2-2208090, Determine agreeable parts. Capture agreeable part in MAC CR.

 Can do one more round of treatment for R2-2208089, identify critical arguments if any, prepare for CB.

 Intended outcome: Report, Agreed MAC CR

 Deadline: In time for online CB W2 Thu if required otherwise EOM

* [AT119-e][029][ePowSav] Stage-2 38300 (Huawei)

 Scope: Treat R2-2207070, R2-2208015, R2-2208227, R2-2207745. Determine agreeable parts, reflects agreeable parts in a CR.

 Intended outcome: Report, Agreed CR 38300, offline only if possible.

 Deadline: W2 Wednesday (can CB W2 Thu if required)

Added Thu W1

* [AT119-e][030][NR17] FR2 UL Gap MAC CR (Apple)

 Scope: Treat R2-2206959, R2-2208931

 Intended outcome: Brief Report, Agreed CR (if possible).

 Deadline: EOM

* [AT119-e][031][IAB18] (Qualcomm)

 Scope: Based on the input/proposals to this meeting, the WID, and the online discussion, the rapporteur is asked to carefully select a limited number of points / sub-topics that are interesting from R2 point of view Can discuss: whether there is a possible way forward, an issue that need to be resolved etc. If applicable can also identify points to ask other group(s) in an LS out.

 Intended outcome: Report, identifying, possible agreements/ways forward, issues that need to be resolved, points to be excluded, with <= **5** proposals.

 Deadline: In time for short CB W2 Friday

* [AT119-e][032][NR1516] n77 (Ericsson)

 Scope: Take into account online progress. Determine where and how to capture the online agreement. Treat also remaining papers on n77: R2-2208163, R2-2208264, R2-0227262, and determine agreeable parts, For agreeable parts and agreements, capture in CRs.

 Intended outcome: Report, Agreed CRs (LS out if desired)

 Deadline: EOM (offline only, if possible)

* [AT119-e][033][MGE] (MediaTek)

 Scope: Treat R2-2206940, R2-2208471, R2-2207146, R2-2208464, R2-2208562, R2-2208106, R2-2207895. Determine agreeable parts, for agreeable parts, capture in CR(s)

 Intended outcome: Report, Agreed CR (s), LS out if applicable

 Deadline: EOM (offline only, if possible)

* [AT119-e][034][NR17] 2TX-2TX UL switching UE caps (Qualcomm)

 Scope: Based on online agreements, revise and agree CRs.

 Intended outcome: Agreed CRs (report if needed)

 Deadline: EOM (offline only if possible).

Modified: **[015], [025]** see above

Added Mon W2

* [AT119-e][035][NR17] 38300 Miscellaneous Corrections (Nokia)

 Scope: Rapporteur Miscellaneous Corrections CR for Rel-17

 Intended outcome: Agreed CR

 Deadline: EOM (offline only, if possible)

Added Tue W2

* [AT119-e][037][NRTEI17] Emergency Service Enhancement (Huawei)

 Scope: Continue discussion on R2-2208617, Determine agreeable parts. For agreeable parts work on a CR.

 Intended outcome: Report with agreements, Agreed CR (can also be done as short Post discussion).

 Deadline: EOM (offline only if possible)

Modified: **[025]** see above

Added Wed W2

* [AT119-e][038][NRTEI17] Comments on New proposals (Chair)

 Scope: Collect a round of comments on the new TEI proposals in R2-2208241, R2-2207434, R2-2208430, R2-2208668, R2-2207938 in order to determine if any of these could be agreeable.

 Intended outcome: Report for CB W2 Friday

 Deadline: W2 Thursday 1800 UTC

POST DISCUSSIONS – Short

* [Post119-e][000] Organizational Main (Chair)

 Scope: Review and approval of session notes, Definition of new email discussions (if needed), Any other issue related to R2 119-e.

. Intended outcome: Approved Session Reports, Other

 Deadline: Short

* [Post119-e][001][feMIMO] MAC CR (Samsung)

 Scope: Capture meeting progress in a MAC CR

 Intended outcome: Agreed CR

 Deadline: Short

* [Post119-e][002][feMIMO] RRC CR (Ericsson)

 Scope: Capture meeting progress in a Ericsson CR

 Intended outcome: Agreed CR

 Deadline: Short

* [Post119-e][014][NR17] UE caps Main (Intel)

 Scope: Continue [AT119-e][014]. Take into account all relevant incoming LSes. Determine agreeable parts and capture in CRs. Merge WI specific R17 UE caps draft CRs, endorsed in the Wi specific sessions.

 Intended outcome: Agreed UE caps Mega CRs, LS out if applicable, report if helpful for future progress.

 Deadlines: Sept 07 (extended short).

* [Post119-e][024][NR18] FS\_REDCAP\_Ph2 Reply LS (Ericsson)

 Scope: Based on agreements related to [AT119-e][024], agree reply LS

 Intended outcome: Approved Reply LS out.

 Deadline: Short

* [Post119-e][032][NR1516] n77 (Ericsson)

 Scope: Based on progress, e.g. online and in [AT119-e][032], progress Rel-16 and Rel-17 CRs “Correction to additionalSpectrumEmission for UL CA in n77 for the US”, and Rel-17 CR “Correction to additionalSpectrumEmission for UL CA in n77 for Canada”, and also R2-2208164 Ensuring consistent support of capability bits and associated NS-values in n77 in USA and Canada

 Intended outcome: Agreed CRs

 Deadline: Short

* [Post119-e][036][feMob] Agreements, time chart, LS out (MediaTek)

Scope: Capture WI agreements, Capture a mobility timing chart for L1L2 mobility, as a reference - include all pieces of procedures that may be optimized impacted FFS etc (acc to current agreements). LS out to RAN1 and RAN3 on the RAN2 progress, and ask to take into account.

 Intended outcome: Endorsed Report or Stage-2 CR with appendix etc, Approved LS out

 Deadline: Short (Can start before the meeting has ended)

* [Post119-e][037][NRTEI17] Emergency Service Enhancement CR (Huawei)

 Scope: Continue from [AT119-e][037], Collect further comments on the proposals, clarify potential issue if possible, reach a potentially agreeable way forward for the next meeting,

 Intended outcome: Report (to be submitted to next meeting, to be used as baseline for continued disc)

 Deadline: 1 week

* [Post119-e][039][ePowSav] 38304 CR (vivo)

 Scope: Reflect the agreements in a CR, Agree CR

 Intended outcome: Agreed CR

 Deadline: Short (can start before end of meeting)

* [Post119-e][040][ePowSav] 38331 CR (CATT)

 Scope: Reflect the agreements in a CR, Agree CR

 Intended outcome: Agreed CR

 Deadline: Short (can start before end of meeting)

* [Post119-e][041][NR17] CRS-IM network assistance signalling (Qualcomm)

 Scope: Treat R2-2209050. Attempt to converge to an agreeable CR (Rapporteur has promised to provide a proposal).

 Intended outcome: Report (to document the discussion and in case not possible to converge), Note that technical proposals will not be agreed individually. Agreed CR

 Deadline: Short (can start before end of meeting)

* [Post119-e][042][NRTEI17] CRs for DRX operation with bundling controlled in the DCI (Ericsson)

 Scope: Continue based on progress for R2-2208668. Arrive at agreeable CRs (UE cap CRs assumed to not be merged)

 Intended outcome: Agreed CRs

 Deadline: Short

* [Post119-e][044][NR1516] CR for overheating for NR SCG (Qualcomm)

 Scope: Continue discussion from [AT119-e][011] on revision of R2-2208207/8208.

 Intended outcome: Agreed CRs

 Deadline: Short

* [Post119-e][045][NR151617] RRC TS Rapporteur CRs (Ericsson)

 Scope: Miscellaneous non-controversial corrections CRs

 Intended outcome: Agreed CR(s)

 Deadline: Short

* [Post119-e][046][NR17] FR2 UL Gap MAC CR (Apple)

 Scope: Continue discussion from [AT119-e][030]. Take into account the late comment by ericsson. Allow wider participation

 Intended outcome: Agreed CR

 Deadline: Short

* [Post119-e][047][MGE] RRC CR (MediaTek)

 Scope: Continue discussion from [AT119-e][033], take into account RAN4 agreements on mgta.

 Intended outcome: Agreed RRC CR

 Deadline: Short

POST DISCUSSIONS - Long

* [Post119-e][043][ePowSav] paging early indication with paging subgrouping during emergency call (MediaTek)

 Scope: Determine whether there are issues that need resolution, and if so, determine ways forward. Pave the way for agreements at next meeting

 Intended outcome: Report

 Deadline: long

* [Post119-e][048][feMob] Candidate target configurations for L1/L2 mobility (Ericsson)

 Scope: Explore/Identify the pros/cons of options on the table in the support of the different target scenarios, supporting with high performance cell changes without reconfiguration. Can identify specific aspects of the configurations, that are potentially necessary.

 Intended outcome: Report, with proposals to be addressed at next meeting.

 Deadline: long (to next meeting)

# 1 Opening of the meeting

**This e-Meeting**

- This e-Meeting follows 3GPP principles for e-Meetings.

- RAN2 119 electronic has full decision power, i.e. full decision power to make agreements and approvals according to RAN WG2 terms of reference, without any need to ratify decisions at a later RAN2 or other meeting.

## 1.1 Call for IPR

|  |
| --- |
| The attention of the delegates of this Working Group is drawn to the fact that **3GPP Individual Members have the obligation** under the IPR Policies of their respective Organizational Partners **to inform their respective Organizational Partners of Essential IPRs** they become aware of. The delegates were asked to take note that they were hereby invited:* to investigate whether their organization or any other organization owns IPRs which were, or were likely to become Essential in respect of the work of 3GPP.
* to notify their respective Organizational Partners of all potential IPRs, e.g., for ETSI, by means of the IPR Statement and the Licensing declaration forms (https://www.etsi.org/images/files/IPR/etsi-ipr-form.doc)
 |

NOTE: IPRs may be declared to the Director-General or Chairman of the SDO, but not to the RAN WG2 Chairman.

## 1.2 Network usage conditions

1/ To avoid email system overload, please don’t attach files and documents to emails e.g. for offline email discussions, but instead use files placed on the ftp server instead. Inbox/Drafts folder is used for AT-meeting offline discussions.

## 1.3 Other

|  |
| --- |
| In accordance with the Working Procedures it is reaffirmed that: (i) compliance with all applicable antitrust and competition laws is required; (ii) timely submissions of work items in advance of TSG or WG meetings are important to allow for full and fair consideration of such matters; and (iii) the chairman will conduct the meeting with strict impartiality and in the interests of 3GPP |

Note on (i): In case of question please contact your legal counsel.

Note on (ii): WIDs don’t need to be submitted to the RAN2 meeting and will typically not be discussed here either.

* [000] Chair: No comments or questions were received in reply to announcement of messages in AI1.

# 2 General

## 2.1 Approval of the agenda

R2-2206900 Agenda for RAN2#119-e Chairman agenda Late

* [000] approved

## 2.2 Approval of the report of the previous meeting

R2-2206901 RAN2#118-e Meeting Report MCC report Late

* [000] approved

## 2.3 Reporting from other meetings

## 2.4 Instructions

Tdoc limitations (reminder)

Tdoc limitations doesn’t apply to Rapporteur Input, i.e.

- Assigned summary rapporteur input of the summary.

- Email / offline discussions outcomes by discussion rapporteur,

- WI rapporteurs input for WI planning etc,

- TS rapporteur input for TS maintenance

- Assigned Editor of Running CRs input to update the running CR and input of one tdoc to facilitate addressing of CR open issues.

- Contact Company of a LSin that triggers RAN2 action may submit one tdoc to facilitate the LS reply. This only applies to one of the contact companies in case there are several (default the first).

Tdoc limitations doesn’t apply to Input created at the meeting, revisions, assigned documents etc.

Tdoc limitations doesn’t apply to shadow / mirror CRs (Cat A).

Tdoc limitations applies to all other submitted tdocs.

Rel-18

For R2 119-e, no offline decision making for Rel-18, only online decisions. Any exception to this must be pre-agreed.

Rel-17 CR

General, all correction CRs / draft CRs:

1. Rapporteurs of Rel-17 WI CRs are asked to continue their volunteer responsibility, even if the WI is closed, at least for the durations of R2 119-e (later meetings TBD).
2. Unless otherwise explicitly agreed/indicated, max one Cat F CR per TS per WI shall be produced as outcome of the meeting. Exception: NBC aspects, if any, may need to be in a separate CR per WI (decided case by case). Note that Impact analysis is required per CR.
3. For smaller / editorial corrections, Companies are asked to coordinate directly with Rapporteurs of Rel-17 WI CRs, rather than submitting separate correction tdocs.
4. General: Please refer to TS contents, in order to illustrate issues and wanted corrections. Proposals that are vague and unspecific may be deprioritized / not treated.

Rel-17 UE capabilities

For R2 119-e, the intention is to finalize UE capabilities for Rel-17

There is no specific coordination for EUTRA UE capabilities.

For NR UE capabilities the following applies:

1: As previously, work on mega CRs (one mega CR for TS 38.306 and one for TS 38.331). This work is done under Agenda Item AI 6.0.2

2: Coordinate centrally incorporation in CRs of RAN1 / RAN4 features for all Rel17 WIs. This work is done under Agenda Item AI 6.0.2 and changes are done directly to the mega CRs. There could be exceptions, case by case, where RAN1 / RAN4 features are treated under a WI-specific Agenda Item instead.

3: RAN2 should only implement in the CRs the features / feature groups from the RAN1 and RAN4 feature list without any FFS that impacts ASN.1 (no highlighted yellow, [] and/or marked as FFS/TBD). Also UE Capabilities that are dependent on such FFS features should not be implemented.

4: R2 Features and capabilities developed only in R2, are developed and corrected individually per WI, under WI-specific Agenda Items. Draft CRs (running CRs) for 38.331 and 38.306 are produced. The 306 CRs shall include an annex containing the RAN2 determined UE capabilities in the feature list format (similar to annex containing RAN2 agreements) for easy compilation into the TR38.822 in the later stage.

1. At the end of R2 119-e, endorsed WI specific UE capability CRs will be merged into the mega CRs, and the mega CRs will be provided to TSG RAN. Any exception to this need to be decided case by case.
* [000] the posted instructions are Noted

R2-2206902 RAN2 Handbook 08-22 MCC discussion Late

* [000] Noted

## 2.5 Others

R2-2208700 LS On UE capability signalling for IoT-NTN Nokia LS out Rel-17 LTE\_NBIOT\_eMTC\_NTN To:SA2 Cc:CT1 Late.

Moved here, this LS belongs to previous RAN2 meeting, and was not approved by mistake.

* Qc think we should CC R3
* There is also an error in the dates for next meeting
* With these modifications the LS out is approved, final version in R2-2208928 (MCC to make modifications)

On the W3 Monday Session - Brief discussion at W2 Friday

Chair: Now at Friday morning: No requests yet for a session on W3 Monday.

- Intel has provided the updated L1 feature list on the reflector. See no critical things for online. Still open issues from R1 on some WIs, e.g. Cov enh, MBS, IIOT. Expect from some Wi to get further update today. Expect to kick off post doiscussion on UE cap Aug 29.

- LG asks how to handle late LSes. Chair think we use discussion Post119-e [000] to define new offline discussions (short Post discussions). Think also that we can take into account new LSes in already defined email discussions

- HW think we will have LSes from R1. Support to take into acount late LSes. Expect one for feMIMO.

- Ericsson are worried that feMIMO reply may be complex. Chair think that if we need Monday session we can decide later today (before noon CEST). Nokia think for completely new things we should wait until next meeting. Ericsson prefer that we change ASN.1 now rather than next meeting.

Chair: Will announce at EOM

# 3 Incoming liaisons

Note: LSs are moved to the respective agenda items if any.

R2-2206970 LS on Priority given to Rel-17 LSs from CT (CP-221319; contact: Orange) CT1 LS in Rel-17 To:SA2, SA4, RAN2 Cc:SA, RAN

- [000] Chair Comment: LS replies has had high priority for the whole RAN2 119-e.

* [000] Noted

# 4 EUTRA Rel-16 and earlier

Only essential corrections. No documents should be submitted to 4. Please submit to 4.x

## 4.1 NB-IoT and eMTC corrections Rel-16 and earlier

(NB\_IOTenh3-Core; leading WG: RAN1; REL-16; started: Jun 18; Completed: June 20; WID: RP-200293); REL-15 and Earlier NB-IoT WIs are in scope but not listed explicitly (long list).

(LTE\_eMTC5-Core; LTE\_eMTC5-Core; leading WG: RAN1; REL-16; started: Jun 18; Completed: June 20; WID: RP192875;), REL-15 and Earlier eMTC WIs are in scope but not listed explicitly (long list).

R2-2207312 Clarification on schedulingInfoList for in NB-IoT MediaTek Inc. CR Rel-17 36.331 17.1.0 4837 - A LTE\_NBIOT\_eMTC\_NTN-Core

R2-2207313 Clarification on schedulingInfoList for in NB-IoT MediaTek Inc. CR Rel-16 36.331 16.9.0 4838 - A LTE\_NBIOT\_eMTC\_NTN-Core

R2-2207314 Clarification on schedulingInfoList for in NB-IoT MediaTek Inc. CR Rel-15 36.331 15.18.0 4839 - A LTE\_NBIOT\_eMTC\_NTN-Core

R2-2208594 36331\_(R16)\_Clarification on SPS deactivation upon carrier reconfiguration ZTE Corporation, Sanechips CR Rel-16 36.331 16.9.0 4864 - F NB\_IOTenh3-Core

R2-2208595 36331\_(R17)\_Clarification on SPS deactivation upon carrier reconfiguration ZTE Corporation, Sanechips CR Rel-17 36.331 17.1.0 4865 - A NB\_IOTenh3-Core

## 4.2 V2X and Side-link corrections Rel-15 and earlier

REL-15 and Earlier WIs are in scope but not listed explicitly (long list).

## 4.3 Positioning corrections Rel-16 and earlier

(LTE\_NavIC-Core, LTE TEI16 Positioning), REL-15 and Earlier WIs are in scope but not listed explicitly (long list).

Documents in this agenda item will be handled by email. No web conference is planned for this agenda item.

## 4.4 Other LTE corrections Rel-16 and earlier

(LTE\_feMob-Core; leading WG: RAN2; REL-16; started: Jun 18; Completed: June 20; WID: RP-190921)

(LTE\_terr\_bcast-Core, LTE\_DL\_MIMO\_EE-Core, LTE\_high\_speed\_enh2-Core; LTE TEI16 Non-positioning)

(Documents relating to Rel-16 LTE but for which there is no existing RAN WI/SI, e.g. LSs from CT/SA requesting RAN2 action)

Including TEI16, TEI15 etc corrections and issues that do not fit under any other topic.

For LTE mobility enhancements, only corrections that are LTE-specific should be submitted to this AI. Corrections that impact or are common with NR mobility enhancements should be submitted to 5.1.X instead.

R2-2207023 Correction on SCG failure information procedure ITRI CR Rel-15 36.331 15.18.0 4830 - F NR\_newRAT-Core

R2-2207024 Correction on SCG failure information procedure ITRI CR Rel-16 36.331 16.9.0 4829 - A NR\_newRAT-Core

R2-2207025 Correction on SCG failure information procedure ITRI CR Rel-17 36.331 17.1.0 4828 - A NR\_newRAT-Core

R2-2207391 Corrections on CHO recovery CATT CR Rel-16 36.331 16.9.0 4845 - F LTE\_feMob-Core

R2-2207392 Corrections on CHO recovery CATT CR Rel-17 36.331 17.1.0 4846 - A LTE\_feMob-Core

R2-2208531 Miscellaneous changes collected by Rapporteur Samsung CR Rel-15 36.331 15.18.0 4860 - F NR\_newRAT-Core

R2-2208532 Miscellaneous changes collected by Rapporteur Samsung CR Rel-16 36.331 16.9.0 4861 - F NR\_newRAT-Core

R2-2208533 Miscellaneous changes collected by Rapporteur Samsung CR Rel-17 36.331 17.1.0 4862 - A NR\_newRAT-Core

# 5 NR Rel-15 and Rel-16

Essential corrections only.

Tdoc Limitation: 11 tdocs in total for all sub agenda items.

## 5.1 Common

Includes the following WIs and input that doesn’t fit elsewhere.

(NR\_newRAT-Core; leading WG: RAN1; REL-15; started: Mar. 17; closed: Jun. 19: WID: RP-191971)

(NR\_IAB-Core; leading WG: RAN2; REL-16; started: Dec 18; target Aug 20; WID: RP-200840)

(NR\_unlic-Core; leading WG: RAN1; REL-16; started: Dec 18; Closed June 20; WID: RP-192926).

(NR\_IIOT-Core; leading WG: RAN2; REL-16; started: Mar 19; Completed: Jun 20; WID: RP-200797)

(NR\_UE\_pow\_sav-Core; leading WG: RAN1; REL-16; started: Mar 19; Completed Jun 20; WID: RP-200494).

(NR\_2step\_RACH-Core; leading WG: RAN1; REL-16; started: Dec 18; Completed: June 20; WID: RP-200085).

(SRVCC\_NR\_to\_UMTS-Core; leading WG: RAN2; REL-16; started: Dec 18; Completed; Mar 20; WID: RP-190713)

(RACS-RAN-Core, leading WG: RAN2; REL-16; started: Mar 19; completed: Jun 20; WID: RP-191088)

(NG\_RAN\_PRN-Core; leading WG: RAN3; REL-16; started: Mar 19; completed: June 20; WID: RP-200122)

(NR\_eMIMO-Core, leading WG: RAN1; REL-16; started: Jun 18; target; Aug 20; WID: RP-200474;)

(NR\_CLI\_RIM; leading WG: RAN1; REL-16; started: Dec 18; Completed: Jun 20; WID: RP-191997;)

(NR\_L1enh\_URLLC-Core, leading WG: RAN1; REL-16; Completed: June 20; WID: RP-191584)

(LTE\_NR\_DC\_CA\_enh-Core; leading WG: RAN2; REL-16; started: Jun 18; Target Aug 20; WI RP-200791)

(NR\_Mob\_enh-Core; leading WG: RAN2; REL-16; started: Jun 18; Completed June 20; WID: RP-192277).

(NR\_HST, NR\_RRM\_enh-Core, NR\_RF\_FR1, NR\_RF\_FR2\_req\_enh, NR\_n66\_BW, LTE\_NR\_B41\_Bn41\_PC29dBm-Core, NR\_CSIRS\_L3meas,)

(NR TEI16).

LTE mob enh corrections that are common with NR mobility enhancements should be submitted to this AI.

### 5.1.1 Stage 2 and Organisational

Incoming LSs, etc. You should discuss your stage 2 CRs with the specification rapporteurs before submission. Includes impact to 38.300, 36.300, 37.340

LS in to be noted

R2-2206921 Reply LS on configuration of p-MaxEUTRA and p-NR-FR1 (R1-2205465; contact: Huawei) RAN1 LS in Rel-17 NR\_newRAT-Core To:RAN5 Cc:RAN2, RAN4

Chair: RAN2 is CCed, no action.

* Noted [000]

R2-2206952 Further Reply LS on configuration of p-MaxEUTRA and p-NR-FR1 (R4-2210815; contact: Qualcomm) RAN4 LS in Rel-15 NR\_newRAT-Core To:RAN5 Cc:RAN1, RAN2

Chair: RAN2 is CCed, no action.

* Noted [000]

R2-2206928 LS on New UE Feature for HARQ-ACK multiplexing on PUSCH in the absence of PUCCH (R1-2205634; contact: Apple) RAN1 LS in Rel-16 TEI16, NR\_newRAT-Core To:RAN2

Chair: Believe that this was taken into account last meeting.

* Noted [000]
* [AT119-e][006][NR1516] Stage-2 Corrections (OPPO)

 Scope: Treat R2-2208190, R2-2208191, R2-2208192, R2-2207131, R2-2207134, R2-2207879, R2-2207735, R2-2208414, R2-2208418. Determine agreeable parts, For agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs

 Deadline: Schedule 1

R2-220xxxx Summary of [AT119-e][006][NR1516] Stage-2 Corrections (OPPO) OPPO

PUCCH Group

postponed last meeting

R2-2208190 Clarification on PUCCH primary and secondary group definition Ericsson CR Rel-15 38.300 15.13.0 0531 - F NR\_newRAT-Core

R2-2208191 Clarification on PUCCH primary and secondary group definition Ericsson CR Rel-16 38.300 16.9.0 0532 - A NR\_newRAT-Core

R2-2208192 Clarification on PUCCH primary and secondary group definition Ericsson CR Rel-17 38.300 17.1.0 0533 - A NR\_newRAT-Core

R2-2207131 Clarification of PUCCH group definition OPPO CR Rel-16 38.300 16.9.0 0442 1 F NR\_RRM\_enh2-Core R2-2204600

R2-2207134 Clarification of PUCCH group definition OPPO CR Rel-17 38.300 17.1.0 0498 - A NR\_RRM\_enh2-Core

*(Moved from 6.24.1)*

* [006] Not to introduce definition of primary/secondary PUCCH group in 38.300
* [006] All 5 CRs above are not pursued

Access control

R2-2207879 Correction on Stage 2 description of Access Control clauses Peraton Labs CISA ECD CR Rel-17 38.300 17.1.0 0518 - F NR\_newRAT-Core

Moved from 6.0.1

* [006] Not Pursued

RNA

R2-2207735 NR Correction related to RNA Deutsche Telekom, Huawei, HiSilicon, Nokia (Rapporteur) CR Rel-17 38.300 17.1.0 0515 - F NR\_newRAT-Core

Moved from 6.21.2

* [006] revised
* [006] The change in CR R2-2207735 is pursued from Rel16. Revised CR in R2-2208977 and R2-2208978 are agreed

R2-2208978 NR Correction related to RNA Deutsche Telekom, Huawei, HiSilicon, Nokia (Rapporteur) CR Rel-16 38.300 16.1.0 0551 - F NR\_newRAT-Core

R2-2208977 NR Correction related to RNA Deutsche Telekom, Huawei, HiSilicon, Nokia (Rapporteur) CR Rel-17 38.300 17.1.0 0515 1 A NR\_newRAT-Core

* [006] both agreed

Rapporteur CR

R2-2208414 Rapporteur Clean-up ZTE Corporation (Rapporteur), Sanechips, Samsung CR Rel-16 37.340 16.10.0 0341 - F TEI16, NR\_Mob\_enh-Core, LTE\_feMob-Core

R2-2208418 Rapporteur Clean-up ZTE Corporation (Rapporteur), Sanechips, Samsung CR Rel-17 37.340 17.1.0 0342 - A TEI16, NR\_Mob\_enh-Core, LTE\_feMob-Core

* [006] Both revised, Revision of R2-2208414, R2-2208418 are agreed

R2-2209065 Rapporteur Clean-up ZTE Corporation (Rapporteur), Sanechips, Samsung CR Rel-16 37.340 16.10.0 0341 1 F TEI16, NR\_Mob\_enh-Core, LTE\_feMob-Core

R2-2209066 Rapporteur Clean-up ZTE Corporation (Rapporteur), Sanechips, Samsung CR Rel-17 37.340 17.1.0 0342 1 A TEI16, NR\_Mob\_enh-Core, LTE\_feMob-Core

* [006] both agreed

### 5.1.2 User Plane corrections

**User Plane corrections will be handled in the UP break out session**

#### 5.1.2.1 MAC

R2-2207896 Clarification on BFD while SCell is deactivated Nokia, Nokia Shanghai Bell CR Rel-16 38.321 16.9.0 1347 - F NR\_eMIMO-Core

R2-2207897 Clarification on BFD while SCell is deactivated Nokia, Nokia Shanghai Bell CR Rel-17 38.321 17.1.0 1348 - A NR\_eMIMO-Core

R2-2207898 Clarification on the matching TB size for 2-step RA Nokia, Nokia Shanghai Bell CR Rel-16 38.321 16.9.0 1349 - F NR\_2step\_RACH-Core

R2-2207899 Clarification on the matching TB size for 2-step RA Nokia, Nokia Shanghai Bell CR Rel-17 38.321 17.1.0 1350 - A NR\_2step\_RACH-Core

R2-2208008 SPS HARQ feedback dropping for TDD Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

R2-2208009 Clarification on HARQ RTT timer in case of HARQ feedback dropping Nokia, Nokia Shanghai Bell CR Rel-15 38.321 15.13.0 1358 - F NR\_newRAT-Core

R2-2208010 Clarification on HARQ RTT timer in case of HARQ feedback dropping Nokia, Nokia Shanghai Bell CR Rel-16 38.321 16.9.0 1359 - A NR\_newRAT-Core

R2-2208011 Clarification on HARQ RTT timer in case of HARQ feedback dropping Nokia, Nokia Shanghai Bell CR Rel-17 38.321 17.1.0 1360 - A NR\_newRAT-Core

R2-2208024 Clarification on configuredGrantTimer and cg-RetransmissionTimer Nokia, Nokia Shanghai Bell CR Rel-16 38.321 16.9.0 1362 - F TEI16, NR\_unlic-Core

R2-2208025 Clarification on configuredGrantTimer and cg-RetransmissionTimer Nokia, Nokia Shanghai Bell CR Rel-17 38.321 17.1.0 1363 - A TEI16, NR\_unlic-Core, NR\_SmallData\_INACTIVE-Core

R2-2208254 Correction on RA Resource Selection in Rel-15 vivo CR Rel-15 38.321 15.13.0 1373 - F NR\_newRAT-Core

R2-2208261 Correction on RA Resource Selection in Rel-16 vivo CR Rel-16 38.321 16.9.0 1375 - F NR\_newRAT-Core, NR\_2step\_RACH-Core

R2-2208263 Correction on RA Resource Selection in Rel-17 vivo CR Rel-17 38.321 17.1.0 1376 - A NR\_newRAT-Core, NR\_2step\_RACH-Core

#### 5.1.2.2 RLC PDCP SDAP BAP

R2-2206980 Retransmission SDU choice under double-no condition When T-PollRetransmit expiration PML discussion

#### 5.1.2.3 Other

User plane related corrections that should be handled in User plane break out session.

### 5.1.3 Control Plane corrections

#### 5.1.3.1 NR RRC

In case a correction need to mirrored for both NR RRC and LTE RRC, the corrections should be submitted under one single AI, i.e. the sub-AIs below this.

##### 5.1.3.1.1 Connection control

Including L1 Parameters, L2 Parameters, Connection establishment and release, Connection reconfiguration (also reconfig with sync, Handover), Connection resume and release with RRC\_INACTIVE state, Security procedures, re-establishment, RRC processing delay requirements etc.

n77 for UL CA

Online First

R2-2207261 Use of NS-values with intra-band UL CA Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

R2-2208139 NS\_55/57 in NR CA Ericsson discussion Rel-16 TEI16

* 2 tdocs above are noted

R2-2208457 Correction on NR CA configuation for n77 [n77 USA/Canada] MediaTek Inc. CR Rel-17 38.331 17.1.0 3421 - F TEI17

DISCUSSION on the tdocs above

* Apple support Nokia
* HW agrees with Ericsson that there is an issue and prefer option 1, that network is allowed to indicate different values, especially as the parameters values are the same.
* Intel understands that Nokias understanding is correct, but agrees that this is not clear in R2 and R4 TSes, i.e. the usage of CA NS values. Understand that RAN4 are also discussion this point, but woud also be ok with Eri/MTK approach to a specific solution.
* SS think both would be ok, either would be ok.
* OPPO wonder if we for Nokia solution need to add n77 for CA table in R4. Nokia think not, as NS01 is general and can be applied.
* TMO would like to solve this specifically for n77, the Nokia general approach is a different issue. Would prefer very specific language for n77. There is a study for the general aspects (TSG RAN).
* Xiaomi think this is a general issue, would like to have a general solution.
* Vivo prefer Nokias approach.
* Ericsson think the network can signal anything, and the compromise is that the UE just accept.
* Chair: think that if we go the Ericsson/MTK way we can consider to follow TMOs opinion that this is very specific only for the current case.
* For UL CA in n77 with at least one cell in DoD-band and at least one cell in C-band, the network may configure either NS\_55 or NS\_01 for UL carrier(s) in DoD-band, and NS\_01 for the remaining uplink carrier(s) in this band.

*Chair: Continue Offline*

* [AT119-e][032][NR1516] n77 (Ericsson)

 Scope: Take into account online progress. Determine where and how to capture the online agreement. Treat also remaining papers on n77: R2-2208163, R2-2208264, R2-0227262, and determine agreeable parts, For agreeable parts and agreements, capture in CRs.

 Intended outcome: Report, Agreed CRs (LS out if desired)

 Deadline: EOM (offline only, if possible)

R2-2208938 [AT119-e][032][NR17] n77 Report Ericsson

* [032] Noted, agreements reflected below

GENERAL

* [032] Agree on following CRs to TS 38.331 in short email discussion:
- Rel-16 and Rel-17 CRs “Correction to additionalSpectrumEmission for UL CA in n77 for the US”
- Rel-17 CR “Correction to additionalSpectrumEmission for UL CA in n77 for Canada”.
* [032] Discussion on potential RAN2 specification impact with respect to CA\_NS tables in RAN4 specs is Postponed.

n77 Capabilities

R2-2208163 Correction for NS 55 and NS 57 and associated capability bits Ericsson discussion Rel-16 TEI16

* [032] Noted

R2-2208164 Ensuring consistent support of capability bits and associated NS-values in n77 in USA and Canada Ericsson CR Rel-17 38.306 17.1.0 0788 - F TEI17

- [032] AT&T added late support

- [032] Chair offline comment: However I am wondering about R2-2208164, it seems there is agreement on the intended behaviour, and the arguments for having it seems stronger than the arguments for not having it. I’d like to ask opponents if they would really be unhappy about agreeing R2-2208164

- [032] Rap: Changed proposal into, add this CR for email approval.

* [032] continue by email

R2-2207262 Use of NS\_55 and NS\_57 on band n77 Nokia, Nokia Shanghai Bell discussion Rel-16 TEI16

* [032] Noted
* [Post119-e][032][NR1516] n77 (Ericsson)

 Scope: Based on progress, e.g. online and in [AT119-e][032], progress Rel-16 and Rel-17 CRs “Correction to additionalSpectrumEmission for UL CA in n77 for the US”, and Rel-17 CR “Correction to additionalSpectrumEmission for UL CA in n77 for Canada”, and also R2-2208164 Ensuring consistent support of capability bits and associated NS-values in n77 in USA and Canada

 Intended outcome: Agreed CRs

 Deadline: Short

* [AT119-e][007][NR1516] RRC Conn Control I (Nokia)

 Scope: Treat R2-2208270, R2-2208271, R2-2207258, R2-2207259, R2-2207260, R2-2207263, R2-2207264, R2-2207265, R2-2207266, R2-2207942, R2-2206918, R2-2207550, R2-2207551, R2-2207552, R2-2207553, R2-2207603, R2-2207604, R2-2207605, R2-2207606, R2-2207139, R2-2207140, R2-2207142, R2-2207143, Determine agreeable parts, For agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs, LS out if applicable

 Deadline: Schedule 1

R2-2208972 Report of [AT119-e][007][NR1516] RRC Conn Control I (Nokia) Nokia

Online Discussion W2 Thu only on P3:

Case: P-Max signalled in the SIB but not in dedicated signalling

- QC has sympathy for the interpretation that UE should apply value from SIB, but think there are UE impl that does otherwise. Think this can be mandated from R17.

- Apple think similar thin happened for LTE, and for LTE when there is no dedicated signalling the UE just defaults to default setting from R4. Think that at handover not clear when the UE will apply the SIB value. Huawei agrees with Apple.

- CATT think that typically this would be both in SIB and dedicated signalling ang the values would be the same.

- Nokia think that the dedicated values are adjusted to UE capabilities. Nokia think that SIB1 is read whenever there is an update.

- OPPO think that Apple and Huawei reasoning is ok before UE has read SIB1, but after SIB1 has been read, then it should follow it.

- Ericsson proposed to postpone. KDDI support to postpone

*Chair: R2 could For Rel-15 and Rel-16 leave to UE impl, if there are different impl in the field*

*Chair: from RAN2 perspective we could e.g. decide (for Rel-17 and onwards) acc to OPPO view that when SIB1 has been read then that value shall apply.*

* Postpone the issue of P-Max signalled in the SIB but not in dedicated signaling (companies are asked to check)

R2-2209081 Report of [AT119-e][007][NR1516] RRC Conn Control I (Nokia) Nokia

* [007] Noted, agreements reflected below

L1 Parameters

R2-2208270 Correction of PUSCH repetition configuration Qualcomm Incorporated CR Rel-16 38.331 16.9.0 3394 - F NR\_IIOT-Core

R2-2208271 Correction of PUSCH repetition configuration Qualcomm Incorporated CR Rel-17 38.331 17.1.0 3395 - A NR\_IIOT-Core

- [007] Rap ph1 outcome
P1: As there seems to clear consensus that in the absence of any configuration the baseline operation is Rel-15 PUSCH repetition type A. Hence first change in R2-2208270/R2-2208271 is not pursued.

 P2: Most companies seem to agree to make the mappingtype-r16 and startSymbolAndLength-r16 mandatory for PUSCH repetition type A by updating the condition NotFormat01-02-Or-TypeA. Proponent to consider updating the CR based on the comments and revise for Phase II discussion CRs in R2-2208270/R2-2208271.

* [007] Both Revised

R2-2209099 Correction of PUSCH repetition configuration Qualcomm Incorporated CR Rel-16 38.331 16.9.0 3394 1 F NR\_IIOT-Core

R2-2209100 Correction of PUSCH repetition configuration Qualcomm Incorporated CR Rel-17 38.331 17.1.0 3395 1 A NR\_IIOT-Core

* [007] Both agreed

R2-2207258 P-Max definition in SIB1 and dedicated signalling Nokia, Nokia Shanghai Bell CR Rel-15 38.331 15.18.0 3238 - F NR\_newRAT-Core

R2-2207259 P-Max definition in SIB1 and dedicated signalling Nokia, Nokia Shanghai Bell CR Rel-16 38.331 16.9.0 3239 - A NR\_newRAT-Core

R2-2207260 P-Max definition in SIB1 and dedicated signalling Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.1.0 3240 - A NR\_newRAT-Core

* [007] 3 CRs postponed

R2-2207263 Correction to firstOFDMSymbolInTimeDomain Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

- [007] Rap ph1 outcome P4: All companies seem to share the same understanding that the “restriction on usage of the value 2 of firstOFDMSymbolInTimeDomain being only supported when DMRS TypeA uses pos3” is no longer there from the RAN1 perspective and the RAN2 specification is unnecessarily restricting this. Two companies need to check further from their implementations and two companies think this change can be done from Rel-17. Rapporteur proposes to check this further for Phase II.

- [007] No consensus after ph11, postponed for further checking

* [007] Noted, topic is postponed for further checking

R2-2207264 Correction to firstOFDMSymbolInTimeDomain Nokia, Nokia Shanghai Bell CR Rel-15 38.331 15.18.0 3241 - F NR\_newRAT-Core

R2-2207265 Correction to firstOFDMSymbolInTimeDomain Nokia, Nokia Shanghai Bell CR Rel-16 38.331 16.9.0 3242 - A NR\_newRAT-Core

R2-2207266 Correction to firstOFDMSymbolInTimeDomain Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.1.0 3243 - A NR\_newRAT-Core

* [007] 3 CRs above are postponed

R2-2207941 Correction on the field description for highSpeedDemodFlag Huawei, HiSilicon CR Rel-16 38.331 16.9.0 3329 - F NR\_HST-Core

- [007] Rap ph1 outcome P5 All companies agree to propagate the changes for the field description of highSpeedDemodFlag based on the Rel-17 agreed version in R2-2203852 to Rel-16. Rapporteur proposes that proponent continue to revise the CR based on the comments for Phase II.

* [007] Revised

R2-2208986 Correction on the field description for highSpeedDemodFlag Huawei, HiSilicon CR Rel-16 38.331 16.9.0 3329 1 F NR\_HST-Core

* [007] Agreed

NR-DC Power Control

R2-2206918 Reply LS on power control for NR-DC (R1-2205448; contact: Nokia) RAN1 LS in Rel-17 LTE\_NR\_DC\_CA\_enh-Core To:RAN2, RAN4

Moved from 5.1.1

* [007] Noted

NR-DC power control

- [007] Rap ph1 outcome

 P6: Continue revising the CRs in R2-2207550, R2-2207551, R2-2207552, R2-2207553 for Phase II.

 P7: Work on the final wording for capturing the support the indicated power sharing mechanisms for FR2-FR2 DC in CR set R2-2207603, R2-2207604, R2-2207605, R2-2207606 for Phase II.

* [007] It is agreed to restrict the FRx differentiation to FR1 for the capabilities in R2-2207142/R2-2207143.
* [007] Merge into one set of merged CRs from below

R2-2207552 NR DC Power control Nokia, Nokia Shanghai Bell CR Rel-16 38.331 16.9.0 3280 - F LTE\_NR\_DC\_CA\_enh-Core

R2-2207553 NR DC Power control Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.1.0 3281 - A LTE\_NR\_DC\_CA\_enh-Core

* [007] Both revised

R2-2209010 NR DC Power control Nokia, Nokia Shanghai Bell, OPPO CR Rel-16 38.331 16.9.0 3280 1 F LTE\_NR\_DC\_CA\_enh-Core

R2-2209011 NR DC Power control Nokia, Nokia Shanghai Bell, OPPO CR Rel-17 38.331 17.1.0 3281 1 A LTE\_NR\_DC\_CA\_enh-Core

* [007] Both Agreed

R2-2207142 Clarification on powe sharing UE capability OPPO CR Rel-16 38.306 16.9.0 0760 - F LTE\_NR\_DC\_CA\_enh-Core

R2-2207143 Clarification on powe sharing UE capability OPPO CR Rel-17 38.306 17.1.0 0761 - A LTE\_NR\_DC\_CA\_enh-Core

* [007] both revised

R2-2208979 Clarification on powe sharing UE capability OPPO, Nokia, Nokia Shanghai Bell CR Rel-16 38.306 16.9.0 0760 1 F LTE\_NR\_DC\_CA\_enh-Core

R2-2208980 Clarification on powe sharing UE capability OPPO, Nokia, Nokia Shanghai Bell CR Rel-17 38.306 17.1.0 0761 1 A LTE\_NR\_DC\_CA\_enh-Core

* [007] Both Agreed

R2-2207550 NR DC Power control Nokia, Nokia Shanghai Bell CR Rel-16 38.306 16.9.0 0770 - F LTE\_NR\_DC\_CA\_enh-Core

R2-2207551 NR DC Power control Nokia, Nokia Shanghai Bell CR Rel-17 38.306 17.1.0 0771 - A LTE\_NR\_DC\_CA\_enh-Core

R2-2207603 Correction on NR-DC power control vivo CR Rel-16 38.331 16.9.0 3290 - F LTE\_NR\_DC\_CA\_enh-Core

R2-2207604 Correction on NR-DC power control vivo CR Rel-16 38.306 16.9.0 0772 - F LTE\_NR\_DC\_CA\_enh-Core

R2-2207605 Correction on NR-DC power control vivo CR Rel-17 38.331 17.1.0 3291 - A LTE\_NR\_DC\_CA\_enh-Core

R2-2207606 Correction on NR-DC power control vivo CR Rel-17 38.306 17.1.0 0773 - A LTE\_NR\_DC\_CA\_enh-Core

R2-2207139 Clarification on FR2 p-max parameters OPPO CR Rel-16 38.331 16.9.0 3220 - F LTE\_NR\_DC\_CA\_enh-Core

R2-2207140 clarification on FR2 p-max parameters OPPO CR Rel-17 38.331 17.1.0 3221 - A LTE\_NR\_DC\_CA\_enh-Core

* [007] 8 CRs above not pursued
* [AT119-e][008][NR1516] RRC Conn Control II (ZTE)

 Scope: Treat R2-2208474, R2-2208476, R2-2208553, R2-2208550, R2-2208551, R2-2208552, R2-2208579, R2-2208580, R2-2208581, R2-2207400, R2-2207401, R2-2208402, R2-2208403, R2-2208691. Determine agreeable parts, For agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs, LS out if applicable

 Deadline: Schedule 1

R2-2209095 Report of [AT119-e][008][NR1516] RRC Conn Control II (ZTE) ZTE

* [008] Noted, agreements reflected below

L2 Parameters

R2-2208474 Correction for field description on PUSCH MediaTek Beijing Inc. CR Rel-16 38.331 16.9.0 3423 - F NR\_2step\_RACH-Core

R2-2208476 Correction for field description on PUSCH MediaTek Beijing Inc. CR Rel-17 38.331 17.1.0 3424 - A NR\_2step\_RACH-Core

- [008] Rap ph1 outcome: P1: The issue raised in R2-2208474/R2-2208475 is valid but it shall be discussed how to deal with such issue (e.g. LS to RAN1 or refine the change in R2-2208474/R2-2208475) in the phase 2 discussion.

- [008] Rap ph2 outcome: CR is agreeable with the following change: When no set is configured, the UE uses the P0-nominal for msg3/msgA PUSCH, P0-UE is set to 0 and alpha is set according to either msg3-Alpha or msgA-Alpha (see TS 38.213[13], clause 7.1).

* [008] both revised

R2-2209075 Correction for field description on PUSCH MediaTek Beijing Inc. CR Rel-16 38.331 16.9.0 3423 1 F NR\_2step\_RACH-Core

R2-2209076 Correction for field description on PUSCH MediaTek Beijing Inc. CR Rel-17 38.331 17.1.0 3424 1 A NR\_2step\_RACH-Core

* [008] both Agreed

R2-2208553 Considerations on sn-fieldlength change in the case of bearer type change ZTE Corporation, Sanechips, Nokia, Nokia Shanghai Bell, CATT discussion Rel-15 NR\_newRAT-Core

Chair comment: Postponed last meeting

* [008] Noted

R2-2208550 CR on 38.331 for sn-FieldLength change for the case of bearer type change ZTE Corporation, Sanechips, Nokia, Nokia Shanghai Bell, CATT CR Rel-15 38.331 15.18.0 3436 - F NR\_newRAT-Core

R2-2208551 CR on 38.331 for sn-FieldLength change for the case of bearer type change ZTE Corporation, Sanechips,Nokia, Nokia Shanghai Bell, CATT CR Rel-16 38.331 16.9.0 3437 - A NR\_newRAT-Core

R2-2208552 CR on 38.331 for sn-FieldLength change for the case of bearer type change ZTE Corporation, Sanechips, Nokia, Nokia Shanghai Bell, CATT CR Rel-17 38.331 17.1.0 3438 - A NR\_newRAT-Core

- [008] Rap ph1 Outcome: P2: The change(way 1) present in CR R2-2208550, R2-2208551, R2-2208552 is agreeable with the following modification :‘a RLC entity’ is changed to ‘an RLC entity’ , and; ‘the field is mandatory present at bearer setup’ is changed to ‘ ‘the field is mandatory present at RLC bearer setup’ in the presence condition of -Reestab.

* [008] all 3 revised

R2-2209085 CR on 38.331 for sn-FieldLength change for the case of bearer type change ZTE Corporation, Sanechips, Nokia, Nokia Shanghai Bell, CATT CR Rel-15 38.331 15.18.0 3436 1 F NR\_newRAT-Core

R2-2209086 CR on 38.331 for sn-FieldLength change for the case of bearer type change ZTE Corporation, Sanechips,Nokia, Nokia Shanghai Bell, CATT CR Rel-16 38.331 16.9.0 3437 1 A NR\_newRAT-Core

R2-2209087 CR on 38.331 for sn-FieldLength change for the case of bearer type change ZTE Corporation, Sanechips, Nokia, Nokia Shanghai Bell, CATT CR Rel-17 38.331 17.1.0 3438 1 A NR\_newRAT-Core

* [008] 3 above CRs agreed

R2-2208579 38.331 cr(Rel-17) correction on the condition of configuring discardTimer Xiaomi CR Rel-17 38.331 17.1.0 3447 - F NR\_newRAT-Core

*Moved from 6.0.3*

R2-2208580 38.331 cr(Rel-16) correction on the condition of configuring discardTimer Xiaomi CR Rel-16 38.331 16.9.0 3448 - F NR\_newRAT-Core

*Moved from 6.0.3*

R2-2208581 38.331 cr(Rel-15) correction on the condition of configuring discardTimer Xiaomi CR Rel-15 38.331 15.18.0 3449 - F NR\_newRAT-Core

*Moved from 6.0.3*

* [008] 3 CRs above not pursued

DAPS

R2-2207400 Correction to RLF configuration in case of DAPS HO Fujitsu CR Rel-16 38.331 16.9.0 3255 - F NR\_Mob\_enh-Core

R2-2207401 Correction to RLF configuration in case of DAPS HO Fujitsu CR Rel-17 38.331 17.1.0 3256 - A NR\_Mob\_enh-Core

* [008] RAN2 confirms that SIB1 of the target cell shall be used during DAPS HO for setting the values for timers T301, T310, T311 and constants N310, N311 for the target cell group. No specification change is needed
* [008] Both not pursued

R2-2208691 Clarification on reestablishRLC for DAPS HO ZTE Corporation, Sanechips

* [008] RAN2 confirms that it is up to the network implementation to set the field reestablishRLC if the RLC bearer is associated with a DAPS bearer, or if any DAPS bearer is configured and the RLC bearer is associated with an SRB. No specification change is needed.
* [008] Noted

R2-2208402 Clarification on headerCompression for DAPS bearer ZTE Corporation, Sanechips CR Rel-16 38.331 16.9.0 3416 - F NR\_Mob\_enh-Core

R2-2208403 Clarification on headerCompression for DAPS bearer ZTE Corporation, Sanechips CR Rel-17 38.331 17.1.0 3417 - A NR\_Mob\_enh-Core

* [008] both revised

On the tdocs above:

- [008] Rap ph1 Outcome P5: It shall be clarified that the understanding on which cell the SIB1 shall be used during DAPS HO for setting the values for timers T301, T310, T311 and constants N310, N311 for the target cell group in the phase 2 discussion:

 - Understanding 1: SIB1 of the source cell.

 - Understanding 2: SIB1 of the target cell.

- [008] Rap ph1 Outcome P6: For the CRs R2-2208402/R2-2208403, it is agreeable with the following modification: Change “ ... or involving PDCP entity reconfiguration to configure or release DAPS” to “The network (re)-configures headerCompression only upon reconfiguration involving PDCP re-establishment or involving PDCP entity reconfiguration to configure DAPS bearer(s)”.

- [008] Rap ph1 Outcome P7: It shall be clarified that the understanding on the restriction ‘Network sets this to true at least whenever the security key used for the radio bearer associated with this RLC entity changes.’ is applicable to DAPS HO or not in the phase 2 discussion:

 - Understanding 1: Applicable

 - Understanding 2: Not applicable

R2-2209067 Clarification on headerCompression for DAPS bearer ZTE Corporation, Sanechips CR Rel-16 38.331 16.9.0 3416 1 F NR\_Mob\_enh-Core

R2-2209068 Clarification on headerCompression for DAPS bearer ZTE Corporation, Sanechips CR Rel-17 38.331 17.1.0 3417 1 A NR\_Mob\_enh-Core

* [008] Both agreed
* [AT119-e][009][NR1516] RRC Conn Control III (Huawei)

 Scope: Treat R2-2206930, R2-2207502, R2-2207503, R2-2207504, R2-2207158, R2-2207159, R2-2207160, R2-2207157, R2-2208905, R2-2208058, R2-2208059, R2-2208473. Determine agreeable parts, For agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs, LS out if applicable

 Deadline: Schedule 1

R2-2208954 Report for [AT119-e][009][NR1516] RRC Conn Control III (Huawei) Huawei, HiSilicon

* [009] Noted, Agreements reflected below

Resume in NPN cell

R2-2206930 LS on NPN only cell (R3-223928; contact: Huawei) RAN3 LS in Rel-16 NG\_RAN\_PRN-Core To:RAN2

Moved from 5.1.1

* [009] Noted

R2-2207502 Discussion on NPN-only cell Huawei, HiSilicon discussion Rel-16 NG\_RAN\_PRN-Core

* [009] Noted

R2-2207503 Correction to 38.331 on NPN-only cell (R16) Huawei, HiSilicon CR Rel-16 38.331 16.9.0 3271 - F NG\_RAN\_PRN-Core

R2-2207504 Correction to 38.331 on NPN-only cell (R17) Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3272 - A NG\_RAN\_PRN-Core

* [009] Both agreed

R2-2207158 Consideration on the Target cell ID for the Short MAC I Calculation ZTE Corporation, Sanechips discussion Rel-16 38.306 NG\_RAN\_PRN-Core

* [009] Noted

R2-2207237 Cell Identity Issue for NPN during RRC Resume Procedure OPPO discussion Rel-16 NG\_RAN\_PRN-Core

=> Revised in R2-2208905

R2-2208905 Cell Identity Issue for NPN during RRC Resume Procedure OPPO discussion Rel-16 NG\_RAN\_PRN-Core

* [009] Noted

R2-2207157 Reply LS on NPN only cell ZTE Corporation, Sanechips LS out Rel-16 NG\_RAN\_PRN-Core To:RAN3

* [009] Noted, Not Needed

R2-2207159 CR on Target Cell ID setting for the NPN-only Cell (R16) ZTE Corporation, Sanechips CR Rel-16 38.331 16.9.0 3222 - F NG\_RAN\_PRN-Core

R2-2207160 CR on Target Cell ID setting for the NPN-only Cell (R17) ZTE Corporation, Sanechips CR Rel-17 38.331 17.1.0 3223 - A NG\_RAN\_PRN-Core

* [009] Both not pursued

Resume EHC

R2-2208058 Correction to add EHC context in UE Inactive AS context Huawei, HiSilicon CR Rel-16 38.331 16.9.0 3349 - F NR\_IIOT-Core

R2-2208059 Correction to add EHC context in UE Inactive AS context Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3350 - A NR\_IIOT-Core

* [009] Both Agreed

UP handling

R2-2208473 Clarification on RLC bearer handling for fullConfig CATT discussion Rel-15

* [009] Noted, proposals herein are not pursued

##### 5.1.3.1.2 Other

* [AT119-e][010][NR1516] RRC Other (vivo)

 Scope: Treat R2-2207547, R2-2207548, R2-2207549, R2-2208265, R2-2207611, R2-2207612, R2-2208337, R2-2208338, R2-2207257, R2-2207615, R2-2207616, R2-2207617, R2-2207618, R2-2207560, R2-2207568, R2-2207574, R2-2208346, R2-2208347, R2-2208348. Determine agreeable parts, For agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs, LS out if applicable

 Deadline: Schedule 1

R2-2209092 Report of [AT119-e][010][NR1516] RRC Other vivo

* [010] Noted, agreements reflected below

SI

SIB1 transmission period

R2-2207547 SIB1 transmission period Nokia, Nokia Shanghai Bell CR Rel-15 38.331 15.18.0 3277 - F TEI15

R2-2207548 SIB1 transmission period Nokia, Nokia Shanghai Bell CR Rel-16 38.331 16.9.0 3278 - A TEI15

R2-2207549 SIB1 transmission period Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.1.0 3279 - A TEI15

* [010] 3 CRs above are not pursued
* [010] From RAN2 perspective, UE assumes the SIB1 monitoring period is 20 ms for SSB and CORESET multiplexing pattern 1 (no spec change is required)

On-Demand SI

R2-2208265 Discussion on SI-request Period Issues vivo discussion Rel-15 NR\_newRAT-Core Late

* [010] Noted, postpone the discussion on the 1024 SFN boundary-crossing issue regarding SI-request period

R2-2207611 Disscussion on SI request issue vivo discussion Rel-15 NR\_newRAT-Core

* [010] Noted, proposals herein are not pursued

R2-2207612 38331 CR on SI request vivo CR Rel-15 38.331 15.18.0 3293 - F NR\_newRAT-Core

R2-2208337 38331 CR on SI request vivo CR Rel-16 38.331 16.9.0 3403 - A NR\_newRAT-Core

R2-2208338 38331 CR on SI request vivo CR Rel-17 38.331 17.1.0 3404 - A NR\_newRAT-Core

* [010] 3 CRs Not Pursued

Measurements

Early measurements

R2-2207257 Clarification to expiry of IDLE mode measurements Nokia, Nokia Shanghai Bell discussion Rel-16 LTE\_NR\_DC\_CA\_enh-Core

*Moved from 5.1.3.1.1*

* [010] Noted, proposals herein are not pursued (can be discussed in TEI 17)

Measurement during connection setup

R2-2207615 Discussion on the measurement during RRC connection establishment and RRC connection resume vivo discussion Rel-15 NR\_newRAT-Core

*Moved from 5.1.3.1.1*

* [010] Noted, proposals herein are not pursued

R2-2207616 Rel-15 331 CR on the measurement during RRC connection establishment and RRC connection resume vivo CR Rel-15 38.331 15.18.0 3294 - F NR\_newRAT-Core

R2-2207617 Rel-16 331 CR on the measurement during RRC connection establishment and RRC connection resume vivo CR Rel-16 38.331 16.9.0 3295 - A NR\_newRAT-Core

R2-2207618 Rel-17 331 CR on the measurement during RRC connection establishment and RRC connection resume vivo CR Rel-17 38.331 17.1.0 3296 - A NR\_newRAT-Core

* [010] 3 CRs Not Pursued

s-Measure

R2-2207560 Corrections on s-MeasureConfig in NR Samsung CR Rel-15 38.331 15.18.0 3282 - F NR\_newRAT-Core

R2-2207568 Corrections on s-MeasureConfig in NR Samsung CR Rel-16 38.331 16.9.0 3284 - A NR\_newRAT-Core

R2-2207574 Corrections on s-MeasureConfig in NR Samsung CR Rel-17 38.331 17.1.0 3285 - A NR\_newRAT-Core

* [010] 3 CRs revised (the first change can be agreed)

R2-2209062 Corrections on s-MeasureConfig in NR Samsung CR Rel-15 38.331 15.18.0 3282 1 F NR\_newRAT-Core

R2-2209063 Corrections on s-MeasureConfig in NR Samsung CR Rel-16 38.331 16.9.0 3284 1 A NR\_newRAT-Core

R2-2209064 Corrections on s-MeasureConfig in NR Samsung CR Rel-17 38.331 17.1.0 3285 1 A NR\_newRAT-Core

* [010] 3 CRs are agreed

Measurement report triggering

R2-2208346 Corrections on measurement report triggering-R15 OPPO, ZEKU, ZTE CR Rel-15 38.331 15.18.0 3405 - F NR\_newRAT-Core

R2-2208347 Corrections on measurement report triggering-R16 OPPO, ZEKU, ZTE CR Rel-16 38.331 16.9.0 3406 - A NR\_newRAT-Core

R2-2208348 Corrections on measurement report triggering-R17 OPPO, ZEKU, ZTE CR Rel-17 38.331 17.1.0 3407 - A NR\_newRAT-Core

* [010] 3 CRs above are agreed

* [AT119-e][011][NR1516] RRC LTE Overheating Misc and Idle (Ericsson)

 Scope: Treat R2-2208202, R2-2208203, R2-2207575, R2-2207576, R2-2207577, R2-2208207, R2-2208208, R2-2207357, R2-2207358, R2-2208209, R2-2208210, R2-2208211, R2-2208140, R2-2207540, R2-2207558, R2-2207559 Determine agreeable parts, For agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs, LS out if applicable

 Deadline: Schedule 1

R2-2209071 Summary of offline [011][NR1516] RRC LTE Overheating Misc and Idle Ericsson

* [011] Noted, agreements reflected below

Miscellaneous

R2-2208202 Miscellaneous corrections Lenovo draftCR Rel-16 38.331 16.9.0 F NR\_unlic-Core, TEI16

R2-2208203 Miscellaneous corrections Lenovo draftCR Rel-17 38.331 17.1.0 A NR\_unlic-Core, TEI16

* [011] Both merged with Rapporteur CR

R2-2208140 Miscellaneous non-controversial corrections Set XV Ericsson CR Rel-16 38.331 16.9.0 3361 - F NR\_newRAT-Core Late

*Moved from 5.1.3.1.1*

#### 5.1.3.2 LTE changes

LTE-specific changes for these WIs. Changes that are applied to both LTE and NR shall be treated together under respective Agenda item other than this one.

Measurements

R2-2207575 Correction on NR serving frequency results reporting for event-triggered measurement (R15) Huawei, HiSilicon, OPPO, MediaTek Inc., vivo, Nokia, Nokia Shanghai Bell, CATT, Ericsson, NTT DOCOMO, Lenovo, ZTE Corporation, Apple, NEC, China Telecom CR Rel-15 36.331 15.18.0 4848 - F NR\_newRAT-Core

R2-2207576 Correction on NR serving frequency results reporting for event-triggered measurement (R16) Huawei, HiSilicon, OPPO, MediaTek Inc., vivo, Nokia, Nokia Shanghai Bell, CATT, Ericsson, NTT DOCOMO, Lenovo, ZTE Corporation, Apple, NEC, China Telecom CR Rel-16 36.331 16.9.0 4849 - A NR\_newRAT-Core

R2-2207577 Correction on NR serving frequency results reporting for event-triggered measurement (R17) Huawei, HiSilicon, OPPO, MediaTek Inc., vivo, Nokia, Nokia Shanghai Bell, CATT, Ericsson, NTT DOCOMO, Lenovo, ZTE Corporation, Apple, NEC, China Telecom CR Rel-17 36.331 17.1.0 4850 - A NR\_newRAT-Core

* [011] 3 CRs above are agreed

Overheating - both NR RRC and/or LTE RRC

R2-2208207 Rel-16 Correction of overheating for NR SCG Qualcomm Incorporated, Ericsson CR Rel-16 36.331 16.9.0 4854 - F TEI16

R2-2208208 Rel-17 Correction of overheating for NR SCG Qualcomm Incorporated, Ericsson CR Rel-17 36.331 17.1.0 4855 - A TEI16

*Moved from 4.4*

[011] Rap ph1 Outcome: P3 RAN2 to capture in procedureal text the UE behavior to indicate overheating mitigation for SCG in case of EN-DC. Further discussed the detailed wording in phase-2, using R2-2208207 and R2-2208208 as baseline together with comments received in phase-1.

* [011] Both revised, Continue in a short Post discussion
* [Post119-e][044][NR1516] CR for overheating for NR SCG (Qualcomm)

 Scope: Continue discussion from [AT119-e][011] on revision of R2-2208207/8208.

 Intended outcome: Agreed CRs

 Deadline: Short

R2-2207357 SCG Overheating termination in EN-DC Samsung CR Rel-16 36.331 16.9.0 4843 - F TEI16

Moved here from 7

R2-2207358 SCG Overheating termination in EN-DC Samsung CR Rel-17 36.331 17.1.0 4844 - A TEI17

Moved here from 7

R2-2208209 Rel-15 Clarification on the overheating UAI Qualcomm Incorporated CR Rel-15 38.331 15.18.0 3379 - F TEI16

R2-2208210 Rel-16 Clarification on the overheating UAI Qualcomm Incorporated CR Rel-16 38.331 16.9.0 3380 - A TEI16

R2-2208211 Rel-17 Clarification on the overheating UAI Qualcomm Incorporated CR Rel-17 38.331 17.1.0 3381 - A TEI16

* [011] 3 CRs above not pursued

#### 5.1.3.4 Idle and inactive mode procedures

This agenda item addresses the idle and inactive behaviour specified in 38.304 or 36.304. Other aspects related to inactive (e.g. state transitions, out of coverage, etc) are covered under RRC agenda items

IMS emergency call

R2-2207540 UE behavior when IMS emergency call is not supported in cell Samsung CR Rel-15 38.304 15.8.0 0261 - F NR\_newRAT-Core

R2-2207558 UE behavior when IMS emergency call is not supported in cell Samsung CR Rel-16 38.304 16.8.0 0262 - A NR\_newRAT-Core

R2-2207559 UE behavior when IMS emergency call is not supported in cell Samsung CR Rel-17 38.304 17.1.0 0263 - A NR\_newRAT-Core

* [011] 3 CRs above not pursued

#### 5.1.3.3 UE capabilities

* [AT119-e][012][NR1516] UE capabilities (MediaTek)

 Scope: Treat R2-2206911, R2-2208501, R2-2208502, R2-2208503, R2-2208504, R2-2207640, R2-2207641, R2-2207049, R2-2207085, R2-2207086, R2-2207094, R2-2207095, R2-2207113, R2-2207114, R2-2208027, R2-2208028, R2-2207331, R2-2207332, R2-2208505, R2-2208506. Determine agreeable parts, For agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs, LS out if applicable

 Deadline: Schedule 1

R2-2209148 Report of [AT119-e][012][NR1516] UE capabilities (MediaTek) MediaTek Inc.

* [012] Noted, agreements reflected below

PDCCH Blind Detection

R2-2206911 Reply LS on PDCCH Blind Detection in CA (R1-2205320; contact: Huawei) RAN1 LS in Rel-17 NR\_L1enh\_URLLC-Core To:RAN2

*Moved from 5.1*

* [012] Noted

R2-2208501 Correction on PDCCH Blind Detection capability in CA Huawei, HiSilicon CR Rel-16 38.306 16.9.0 0789 - F NR\_L1enh\_URLLC-Core

R2-2208502 Correction on PDCCH Blind Detection capability in CA Huawei, HiSilicon CR Rel-17 38.306 17.1.0 0790 - A NR\_L1enh\_URLLC-Core

R2-2208503 Correction on PDCCH Blind Detection capability in CA Huawei, HiSilicon CR Rel-16 38.331 16.9.0 3429 - F NR\_L1enh\_URLLC-Core

R2-2208504 Correction on PDCCH Blind Detection capability in CA Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3430 - A NR\_L1enh\_URLLC-Core

- [012] Rap ph1 outcome: P7: Proponent to provide the revision for R2-2208501, R2-2208502, R2-2208503 and R2-2208504, CR details are discussed and finalized in Phase 2.

* [012] 4 CRs are revised

R2-2209055 Correction on PDCCH Blind Detection capability in CA Huawei, HiSilicon CR Rel-16 38.306 16.9.0 0789 1 F NR\_L1enh\_URLLC-Core

R2-2209056 Correction on PDCCH Blind Detection capability in CA Huawei, HiSilicon CR Rel-17 38.306 17.1.0 0790 1 A NR\_L1enh\_URLLC-Core

R2-2209057 Correction on PDCCH Blind Detection capability in CA Huawei, HiSilicon CR Rel-16 38.331 16.9.0 3429 1 F NR\_L1enh\_URLLC-Core

R2-2209058 Correction on PDCCH Blind Detection capability in CA Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3430 1 A NR\_L1enh\_URLLC-Core

* [012] 4 CRs are agreed

MMSE-IRC

R2-2207640 CR to TS 38.306 on UE capability of MMSE-IRC receiver China Telecom CR Rel-15 38.306 15.17.0 0775 - F NR\_newRAT-Core

R2-2207641 CR to TS 38.306 on UE capability of MMSE-IRC receiver China Telecom CR Rel-16 38.306 16.9.0 0776 - A NR\_newRAT-Core

- [012] Rap Ph1 outcome: P5: Proponent to provide the revision for R2-2207640 and R2-2207641. AS release scope and details of revision CRs are discussed and finalized in Phase 2.

* [012] both revised

R2-2208991 CR to TS 38.306 on UE capability of MMSE-IRC receiver China Telecom CR Rel-15 38.306 15.17.0 0775 1 F NR\_newRAT-Core

R2-2208992 CR to TS 38.306 on UE capability of MMSE-IRC receiver China Telecom CR Rel-16 38.306 16.9.0 0776 1 A NR\_newRAT-Core

* [012] both agreed

HPUE

R2-2207049 On early implementation and capability signaling of Power Class 1.5 MediaTek Inc. discussion Rel-16 LTE\_NR\_B41\_Bn41\_PC29dBm, HPUE\_PC1\_5\_n77\_n78, NR\_UE\_PC1\_5\_n79

- [012] Rap Ph1 outcome:

 P1: PC1.5 early implementation is agreed. Use R2-2207094 and R2-2207095 as baseline, CR details are discussed and finalized in Phase 2.

 P2: RAN2 to clarify capability reporting aspects of power class further.

* [012] Noted

R2-2207085 PC1.5 and legacy power class capability reporting clarification MediaTek Inc. CR Rel-16 38.306 16.9.0 0795 - F LTE\_NR\_B41\_Bn41\_PC29dBm, HPUE\_PC1\_5\_n77\_n78, NR\_UE\_PC1\_5\_n79

R2-2207086 PC1.5 and legacy power class capability reporting clarification MediaTek Inc. CR Rel-17 38.306 17.1.0 0796 - A LTE\_NR\_B41\_Bn41\_PC29dBm, HPUE\_PC1\_5\_n77\_n78, NR\_UE\_PC1\_5\_n79

* [012] Both not pursued

R2-2207094 Make PC1.5 an early implementation candidate MediaTek Inc. CR Rel-16 38.331 16.9.0 3454 - F LTE\_NR\_B41\_Bn41\_PC29dBm, HPUE\_PC1\_5\_n77\_n78, NR\_UE\_PC1\_5\_n79

R2-2207095 Make PC1.5 an early implementation candidate MediaTek Inc. CR Rel-17 38.331 17.1.0 3455 - A LTE\_NR\_B41\_Bn41\_PC29dBm, HPUE\_PC1\_5\_n77\_n78, NR\_UE\_PC1\_5\_n79

* [012] Both revised

R2-2209133 Make PC1.5 an early implementation candidate MediaTek Inc. CR Rel-16 38.331 16.9.0 3454 1 F LTE\_NR\_B41\_Bn41\_PC29dBm, HPUE\_PC1\_5\_n77\_n78, NR\_UE\_PC1\_5\_n79

R2-2209134 Make PC1.5 an early implementation candidate MediaTek Inc. CR Rel-17 38.331 17.1.0 3455 1 A LTE\_NR\_B41\_Bn41\_PC29dBm, HPUE\_PC1\_5\_n77\_n78, NR\_UE\_PC1\_5\_n79

* [012] Both agreed

Per BC Reporting

R2-2207113 Clarification on codebookParametersPerBC parameter for extension of CSI-RS capabilities reporting MediaTek Inc. CR Rel-16 38.331 16.9.0 3452 - F NR\_newRAT-Core, TEI16

R2-2207114 Clarification on codebookParametersPerBC parameter for extension of CSI-RS capabilities reporting MediaTek Inc. CR Rel-17 38.331 17.1.0 3453 - A NR\_newRAT-Core, TEI16

- [012] Rap Ph1 outcome: P3: RAN2 continues technical clarification based on the CRs R2-2207113 and R2-2207114, and check the major concern from infra vendors and companies.

- [012] Rap: Ph2: A compromise version CR is agreeable and no comment was received so we understood the revision CR is agreed.

* [012] both revised

R2-2209131 Clarification on codebookParametersPerBC parameter for extension of CSI-RS capabilities reporting MediaTek Inc. CR Rel-16 38.331 16.9.0 3452 - F NR\_newRAT-Core, TEI16

R2-2209132 Clarification on codebookParametersPerBC parameter for extension of CSI-RS capabilities reporting MediaTek Inc. CR Rel-17 38.331 17.1.0 3453 - A NR\_newRAT-Core, TEI16

* [012] both agreed

A-CSI

R2-2208027 Correction on crossCarrierA-CSI-trigDiffSCS-r16 (38.306) Ericsson CR Rel-17 38.306 17.1.0 0786 - A LTE\_NR\_DC\_CA\_enh-Core

R2-2208028 Correction on crossCarrierA-CSI-trigDiffSCS-r16 (38.306) Ericsson CR Rel-16 38.306 16.9.0 0787 - F LTE\_NR\_DC\_CA\_enh-Core

- [012] Rap Ph1 outcome: P6: Correction on crossCarrierA-CSI-trigDiffSCS-r16 is agreed. Use R2-2208027 and R2-2208028,as baseline, CR details are discussed and finalized in Phase 2.

* [012] Both revised

R2-2209069 Correction on crossCarrierA-CSI-trigDiffSCS-r16 (38.306) Ericsson CR Rel-17 38.306 17.1.0 0786 1 A LTE\_NR\_DC\_CA\_enh-Core

R2-2209070 Correction on crossCarrierA-CSI-trigDiffSCS-r16 (38.306) Ericsson CR Rel-16 38.306 16.9.0 0787 1 F LTE\_NR\_DC\_CA\_enh-Core

* [012] Both Agreed

CSI-RS

R2-2207331 Correction on beamManagementSSB-CSI-RS Qualcomm Incorporated CR Rel-16 38.306 16.9.0 0765 - F TEI16

R2-2207332 Correction on beamManagementSSB-CSI-RS Qualcomm Incorporated CR Rel-17 38.306 17.1.0 0766 - A TEI16

- [012] Rap Ph1 outcome: P4: RAN2 to discuss whether to send LS to RAN1 to clarify the original intention of the capability beamManagementSSB-CSI-RS, and to discuss what is current interpretation based on existing text.

* [012] Both postponed
* [012] Definition correction on *beamManagementSSB-CSI-RS* CR [R2-2207331](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CTSGR2_119-e%5CDocs%5CR2-2207331.zip) is postponed since RAN2 would requires RAN1 input. Interested companies can submit their contributions to RAN1.

pusch-RepetitionTypeA

R2-2208505 Clarification on pusch-RepetitionTypeA-r16 capability Huawei, HiSilicon CR Rel-16 38.306 16.9.0 0791 - F NR\_L1enh\_URLLC-Core

R2-2208506 Clarification on pusch-RepetitionTypeA-r16 capability Huawei, HiSilicon CR Rel-17 38.306 17.1.0 0792 - A NR\_L1enh\_URLLC-Core

- [012] Rap Ph1 outcome: P8: Clarification on pusch-RepetitionTypeA-r16 is agreed. Proponent to provide the revision for R2-2208505 and R2-2208506, CR details are discussed and finalized in Phase 2.

* [012] both revised

R2-2209059 Clarification on pusch-RepetitionTypeA-r16 capability Huawei, HiSilicon CR Rel-16 38.306 16.9.0 0791 1 F NR\_L1enh\_URLLC-Core

R2-2209060 Clarification on pusch-RepetitionTypeA-r16 capability Huawei, HiSilicon CR Rel-17 38.306 17.1.0 0792 1 A NR\_L1enh\_URLLC-Core

* [012] both agreed

## 5.2 NR V2X

(5G\_V2X\_NRSL-Core; leading WG: RAN1; REL-16; started: Mar 19; target; Aug 20; WID: RP-200129).

CR rapporteurs will take care of miscellaneous CRs to collect small changes. Please contact / coordinate with CR rapporteur company first for small changes (e.g. non-controversial clarification/correction, editorial correction, etc.).

### 5.2.1 General and Stage-2 corrections

Including incoming LSs, rapporteur inputs, etc.

R2-2206905 Reply LS on V2X PC5 link for unicast communication with null security algorithm (C1-223972; contact: Huawei) CT1 LS in Rel-17 To:RAN5 Cc:SA3, RAN2

R2-2206950 Reply LS on signalling of PC2 V2X intra-band con-current operation (R4-2210733; contact: CATT) RAN4 LS in Rel-16 5G\_V2X\_NRSL-Core To:RAN2

R2-2206975 Reply LS on V2X PC5 link for unicast communication with null security algorithm (S3-221590; contact: Lenovo) SA3 LS in Rel-17 eV2XARC To:RAN5 Cc:CT1, RAN2

R2-2207219 (draft)reply LS on null security algorithm ZTE Corporation, Sanechips LS out Rel-16 5G\_V2X\_NRSL-Core To:RAN5 Cc:SA3,CT1

R2-2208049 Draft reply LS on V2X PC5 link for unicast communication with null security algorithm Huawei, HiSilicon LS out Rel-16 5G\_V2X\_NRSL-Core To:RAN5 Cc:SA3, CT1

R2-2208050 Clarification on PC5 AS security Huawei, HiSilicon CR Rel-16 38.300 16.9.0 0527 - F 5G\_V2X\_NRSL-Core

R2-2208051 Clarification on PC5 AS security Huawei, HiSilicon CR Rel-17 38.300 17.1.0 0528 - A 5G\_V2X\_NRSL-Core

### 5.2.2 Control plane corrections

This agenda item may utilize a summary document on RRC (Huawei).

R2-2207217 Correction on null security algorithm ZTE Corporation, Sanechips CR Rel-17 38.331 17.1.0 3234 - F 5G\_V2X\_NRSL-Core

R2-2207218 Correction on null security algorithm ZTE Corporation, Sanechips CR Rel-16 38.331 16.9.0 3235 - F 5G\_V2X\_NRSL-Core

R2-2208045 Miscelleneous CR on 38.331 Huawei, HiSilicon CR Rel-16 38.331 16.9.0 3346 - F 5G\_V2X\_NRSL-Core

R2-2208046 Miscelleneous CR on 38.331 Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3347 - A 5G\_V2X\_NRSL-Core

R2-2208052 Summary on Rel-16 control plane corrections Huawei, HiSilicon discussion Rel-16 5G\_V2X\_NRSL-Core Late

R2-2208217 Clarifications on PC5 UE capabilities for V2X Nokia, Nokia Shanghai Bell draftCR Rel-17 38.306 17.1.0 5G\_V2X\_NRSL-Core

R2-2208283 Control plane correction on NR Sidelink enhancements LG Electronics France CR Rel-17 38.331 17.1.0 3396 - F 5G\_V2X\_NRSL-Core

R2-2208350 Correction on LCID assignment for SL LCH ASUSTeK CR Rel-16 38.331 16.9.0 3408 - F 5G\_V2X\_NRSL-Core

R2-2208351 Correction on LCID assignment for SL LCH ASUSTeK CR Rel-17 38.331 17.1.0 3409 - A 5G\_V2X\_NRSL-Core

R2-2208600 Correction on Missing UE behavior on sidelink reset vivo CR Rel-16 38.331 16.9.0 3450 - F 5G\_V2X\_NRSL-Core

R2-2208601 Correction on Missing UE behavior on sidelink reset vivo CR Rel-17 38.331 17.1.0 3451 - F 5G\_V2X\_NRSL-Core

### 5.2.3 User plane corrections

This agenda item may utilize a summary document on MAC (LG).

R2-2207659 CR on SL MAC CE handling vivo CR Rel-16 38.321 16.9.0 1328 - F 5G\_V2X\_NRSL-Core

R2-2207660 CR on SL MAC CE handling vivo CR Rel-17 38.321 17.1.0 1329 - A 5G\_V2X\_NRSL-Core

R2-2207661 Correction on SL LCP restriction for sl-HARQ-FeedbackEnabled vivo CR Rel-16 38.321 16.9.0 1330 - F 5G\_V2X\_NRSL-Core

R2-2207662 Correction on SL LCP restriction for sl-HARQ-FeedbackEnabled vivo CR Rel-17 38.321 17.1.0 1331 - A 5G\_V2X\_NRSL-Core

R2-2207663 Discussion on the Buffer Size field in the Sidelink BSR formats vivo discussion

R2-2207664 Clarification on the Buffer Size field in the Sidelink BSR formats (Option 1) vivo CR Rel-16 38.321 16.9.0 1332 - F 5G\_V2X\_NRSL-Core

R2-2207665 Clarification on the Buffer Size field in the Sidelink BSR formats (Option 1) vivo CR Rel-17 38.321 17.1.0 1333 - A 5G\_V2X\_NRSL-Core

R2-2207666 Clarification on the Buffer Size field in the Sidelink BSR formats (Option 2) vivo CR Rel-16 38.321 16.9.0 1334 - F 5G\_V2X\_NRSL-Core

R2-2207667 Clarification on the Buffer Size field in the Sidelink BSR formats (Option 2) vivo CR Rel-17 38.321 17.1.0 1335 - A 5G\_V2X\_NRSL-Core

R2-2208047 Clarification on UE handling when performing operations on multiple RPs Huawei, HiSilicon CR Rel-16 38.321 16.9.0 1364 - F 5G\_V2X\_NRSL-Core

R2-2208048 Clarification on UE handling when performing operations on multiple RPs Huawei, HiSilicon CR Rel-17 38.321 17.1.0 1365 - A 5G\_V2X\_NRSL-Core

R2-2208281 User plane corrections on NR Sidelink enhancements LG Electronics France CR Rel-17 38.321 17.1.0 1379 - F 5G\_V2X\_NRSL-Core Late

R2-2208352 Discussion on UL skipping and SL BSR ASUSTeK discussion Rel-16 38.321 5G\_V2X\_NRSL-Core

R2-2208353 Corrections on UL skipping and SL BSR ASUSTeK CR Rel-16 38.321 16.9.0 1380 - F 5G\_V2X\_NRSL-Core

R2-2208354 Corrections on UL skipping and SL BSR ASUSTeK CR Rel-17 38.321 17.1.0 1381 - A 5G\_V2X\_NRSL-Core

## 5.3 NR Positioning Support

(NR\_newRAT-Core; leading WG: RAN1; REL-15; started: Mar. 17; closed: Jun. 19: WID: RP-191971)

(NR\_pos-Core; leading WG: RAN1; REL-16; started: Mar 19; target; Jun 20; WID: RP-200218).

(NR TEI16 Positioning)

Documents in this agenda item will be handled by email. No web conference is planned for this agenda item.

### 5.3.1 General and Stage 2 corrections

Including incoming LSs, Including impact to 36.305 and 38.305. Stage 2 corrections shall be discussed with the specification rapporteur (Sven Fischer sfischer@qti.qualcomm.com) before submission. Stage 2 CRs not discussed with the specification rapporteur will not be treated.

This agenda item may use a summary document (decision to be made based on submitted tdocs).

R2-2207108 Correction on the description of deferred MT-LR CATT CR Rel-16 38.305 16.7.0 0101 - F NR\_pos-Core

R2-2207109 Correction on the description of deferred MT-LR CATT CR Rel-17 38.305 17.1.0 0102 - A NR\_pos-Core

### 5.3.2 RRC corrections

Including impact to 36.331, 38.331, and 38.306.

R2-2207408 Change request about Periodicity in SRSp configuration vivo CR Rel-16 38.331 16.9.0 3259 - D NR\_pos-Core

R2-2207561 Change request about Periodicity in SRSp configuration vivo CR Rel-17 38.331 17.1.0 3283 - A NR\_pos\_enh-Core

R2-2207873 Correction for SRS-PeriodicityAndOffset-R16 Huawei, HiSilicon CR Rel-16 38.331 16.9.0 3320 - F NR\_pos-Core

R2-2207874 Correction for SRS-PeriodicityAndOffset-R17 Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3321 - A NR\_pos-Core

R2-2207875 Correction for the capability of SRS-PeriodicityAndOffset-R16 Huawei, HiSilicon CR Rel-16 38.306 16.9.0 0780 - F NR\_pos-Core

R2-2207876 Correction for the capability of SRS-PeriodicityAndOffset-R17 Huawei, HiSilicon CR Rel-17 38.306 17.1.0 0781 - A NR\_pos-Core

### 5.3.3 LPP corrections

R2-2207103 Minor corrections on TS 37.355 CATT CR Rel-16 37.355 16.8.0 0355 - F NR\_pos-Core

R2-2207104 Minor corrections on TS 37.355 CATT CR Rel-17 37.355 17.1.0 0356 - A NR\_pos-Core

R2-2207870 Correction to need code in posSIB\_R17 Huawei, HiSilicon CR Rel-17 37.355 17.1.0 0366 - A NR\_newRAT-Core

R2-2207871 Correction to need code in posSIB\_R16 Huawei, HiSilicon CR Rel-16 37.355 16.8.0 0367 - A NR\_newRAT-Core

R2-2207872 Correction to need code in posSIB\_R15 Huawei, HiSilicon CR Rel-15 37.355 15.3.0 0368 - F NR\_newRAT-Core

R2-2208069 Correction of TRP beam information field descriptions for UEB DL-AoD Ericsson discussion Rel-16 37.355

R2-2208070 Clarification on NR-DL-PRS-ResourcesCapability Ericsson CR Rel-16 37.355 16.8.0 0372 - F NR\_pos-Core

R2-2208071 Clarification on NR-DL-PRS-ResourcesCapability Ericsson CR Rel-17 37.355 17.1.0 0373 - A NR\_pos\_enh-Core

R2-2208119 Issues with DL-PRS Search Window Definitions Qualcomm Incorporated discussion

R2-2208121 Correction to DL-PRS Search Window calculation Qualcomm Incorporated CR Rel-16 37.355 16.8.0 0375 - F NR\_pos-Core

R2-2208123 Correction to DL-PRS Search Window calculation Qualcomm Incorporated CR Rel-17 37.355 17.1.0 0376 - A NR\_pos-Core

### 5.3.4 MAC corrections

## 5.4 SON MDT support for NR

(NR\_SON\_MDT-Core; leading WG: RAN3; REL-16; started: Jun 19; Completed June 20; WID: RP-191776).

### 5.4.1 General and stage-2 corrections

Including incoming LSs, TS 37.320 corrections

### 5.4.2 TS 38.314 corrections

### 5.4.3 RRC corrections

R2-2207527 Corrections to SON/MDT capabilities Lenovo CR Rel-16 38.306 16.9.0 0675 2 F NR\_SON\_MDT-Core R2-2204548

R2-2207528 Corrections to SON/MDT capabilities Lenovo CR Rel-17 38.306 17.1.0 0699 1 A NR\_SON\_MDT-Core R2-2204549

R2-2207942 Discussion on UE behaviours of delay measurements upon MO updates Huawei, HiSilicon discussion Rel-16 NR\_SON\_MDT-Core

R2-2207943 CR on UE behaviours of delay measurements upon MO updates Huawei, HiSilicon CR Rel-16 38.331 16.9.0 3330 - F NR\_SON\_MDT-Core

R2-2207944 CR on UE behaviours of delay measurements upon MO updates Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3331 - A NR\_SON\_MDT-Core

R2-2208169 On DAPS handover failure handling Ericsson CR Rel-16 38.331 16.9.0 3368 - F NR\_SON\_MDT-Core

R2-2208170 On RLF cause determination when RLF occurs due to T312 expiry Ericsson CR Rel-16 38.331 16.9.0 3369 - F NR\_SON\_MDT-Core

R2-2208171 On RLF cause determination when RLF occurs due to T312 expiry Ericsson CR Rel-17 38.331 17.1.0 3370 - A NR\_SON\_MDT-Core

R2-2208172 On ObtainCommonLocation related configuration Ericsson CR Rel-16 38.331 16.9.0 3371 - F NR\_SON\_MDT-Core

R2-2208173 On ObtainCommonLocation related configuration Ericsson CR Rel-17 38.331 17.1.0 3372 - A NR\_SON\_MDT-Core

R2-2208174 On including SSB and CSI-RS measurements in RLF report Ericsson CR Rel-16 38.331 16.9.0 3373 - F NR\_SON\_MDT-Core

R2-2208175 On including SSB and CSI-RS measurements in RLF report Ericsson CR Rel-17 38.331 17.1.0 3374 - A NR\_SON\_MDT-Core

R2-2208373 Discrepancy on inclusion of reconnectCellId Samsung Electronics Co., Ltd discussion Rel-16 38.331 NR\_SON\_MDT-Core R2-2205760

# 6 NR Rel-17

## 6.0 General

These AIs includes Aspects that does not fit under other morre specific AIs, multi-WI aspects,

### 6.0.1 RRC

Including general or multi-WI aspects, if any

Offline

* [AT119-e][013][NR17] RRC I (Ericsson)

 Scope: Treat R2-2207776, R2-2208654, R2-2207267, R2-2207002, R2-2207006, R2-2207013, R2-2208141 (if available), and R2-2208133 (MINT in [6.24.3])

 Determine agreeable parts, For agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs, LS out if applicable

 Deadline: Schedule 1

R2-2208937 [AT119-e][013][NR17] RRC I (Ericsson) Ericsson

* [013] Noted, agreements reflected below

MBS, TEI

R2-2207776 UE handling of cell-specific parameters provided in dedicated signalling Huawei, HiSilicon discussion Rel-17 TEI17, NR\_MBS\_enh-Core

- [013] Rap Ph1 Outcome: P1 Hold discussion on R2-2207776 “UE handling of cell-specific parameters provided in dedicated signalling” until related document R2-2207591 has been treated under Rel-17 MBS agenda item and session (Wedn w2) and [601].

- [013] Rap Ph2 Proposal: Discussion and TP in [R2-2207776](https://urldefense.com/v3/__http%3A/www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_119-e/Docs/R2-2207776.zip__;!!CTRNKA9wMg0ARbw!3vUnieD2K7SftGVhHMZgqhOL6c5AvBwVxtZ3iZHE026J6583G8B2SNgJGR9e8FZzshxZyA$) “UE handling of cell-specific parameters provided in dedicated signalling”  is Postponed.
See also related agreement from [AT119-e][601][MBS-R17] RRC.

* [013] Discussion and TP in [R2-2207776](https://urldefense.com/v3/__http%3A/www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_119-e/Docs/R2-2207776.zip__;!!CTRNKA9wMg0ARbw!3vUnieD2K7SftGVhHMZgqhOL6c5AvBwVxtZ3iZHE026J6583G8B2SNgJGR9e8FZzshxZyA$) “UE handling of cell-specific parameters provided in dedicated signalling”  is Postponed.

RedCap

R2-2208654 Correction on UERadioPagingInformation and UERadioPagingInfo container Ericsson CR Rel-17 38.331 17.1.0 3460 - F NR\_newRAT-Core, NR\_redcap-Core

* [013] Not pursued

DCCA, FeMIMO

R2-2207267 Unified TCI state with deactivated SCG Nokia, Nokia Shanghai Bell discussion Rel-17 LTE\_NR\_DC\_enh2-Core, NR\_FeMIMO-Core

- [013] Rap Ph1 Outcome: Not agreed: Rel-17 ASN.1 changes to support Unified TCI state in deactivated SCG. TP in R2-2207267 (without ASN.1 change) can be further discussed to improve existing field descriptions.

* [013] revised

R2-2208984 Corrections for unified TCI state indication in HO Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.1.0 3468 - F NR\_FeMIMO-Core

- [013] Chair: ok so this ended up being a feMIMO-only correction.

* [013] endorsed, to be merged with feMIMO RRC CR in Post discussion [002]

RNA update

R2-2207002 Corrections to initiation upon reception of RAN paging and T380 Expiry Samsung Electronics Co., Ltd draftCR Rel-17 38.331 17.1.0 NR\_newRAT-Core, NR\_SmallData\_INACTIVE-Core

* [013] Merged with Rapporteur CR

MsgA PUSCH resource release

R2-2207006 MsgA PUSCH resource release upon T304 expiry for SCG Samsung Electronics Co., Ltd draftCR Rel-17 38.331 17.1.0 NR\_newRAT-Core

- [013] Rap Ph1 Outcome: CR in R2-2207006 “MsgA PUSCH resource release upon T304 expiry for SCG” can be revised (cover page).

* [013] revised

R2-2208983 MsgA PUSCH resource release upon T304 expiry for SCG Samsung Electronics Co., Ltd CR Rel-17 38.331 17.1.0 3467 - F

* [013] agreed

SDT MBS

R2-2207013 Corrections to MBS paging monitoring during the SDT procedure Samsung Electronics Co., Ltd draftCR Rel-17 38.331 17.1.0 NR\_SmallData\_INACTIVE-Core, NR\_MBS-Core

- [013] Rap Ph1 Outcome: The changes in R2-2207013 “Corrections to MBS paging monitoring during the SDT procedure” are already covered by the MBS RRC Rapp CR.

* [013] Merged (already done)

Miscellaneous

R2-2208141 Miscellaneous non-controversial corrections Set XV Ericsson CR Rel-17 38.331 17.1.0 3362 - F NR\_newRAT-Core Late

* [013] revised (for short email approval)
* [Post119-e][045][NR151617] RRC TS Rapporteur CRs (Ericsson)

 Scope: Miscellaneous non-controversial corrections CRs

 Intended outcome: Agreed CR(s)

 Deadline: Short

### 6.0.2 UE capabilities

Feature lists from other groups and UE cap Mega CRs will be treated under this AI. Specific issues may be reallocated to WI-specific AIs.

Offline

* [AT119-e][014][NR17] UE caps Main (Intel)

 Scope: Treat R2-2206957, R2-2206971, R2-2207276, R2-2207277, R2-2207962, R2-2207849, R2-2207971, R2-2207972, R2-2208507, R2-2208508, R2-2208509. Take into account ALL relevant incoming LSes. Determine agreeable parts and capture in CRs. Merge WI specific R17 UE caps draft CRs, endorsed in the Wi specific sessions.

 Intended outcome: Report, UE caps Mega CRs (agreed in the end), LS out if applicable

 Deadlines: Acc to Rapporteur. Online CB if needed. If needed, additional optional session W3 can be used.

R2-2209072 Report of [AT119-e][014][NR17] UE Caps Main (Intel) Intel Corporation

* [014] Noted, agreements reflected below, and in draft CRs for which the discussion continues (in a post discussion)
* [Post119-e][014][NR17] UE caps Main (Intel)

 Scope: Continue [AT119-e][014]. Take into account all relevant incoming LSes. Determine agreeable parts and capture in CRs. Merge WI specific R17 UE caps draft CRs, endorsed in the Wi specific sessions.

 Intended outcome: Agreed UE caps Mega CRs, LS out if applicable, report if helpful for future progress.

 Deadlines: Sept 07 (extended short).

LS in

R2-2206957 LS on Rel-17 RAN4 UE feature list for NR (R4-2211190; contact: CMCC) RAN4 LS in Rel-17 To:RAN2 Cc:RAN1

* [014] Noted, taken into account

R2-2206971 LS on updated Rel-17 RAN1 UE features list for NR (R1-2205609; contact: NTT DOCOMO, AT&T) RAN1 LS in Rel-17 NR\_feMIMO, NR\_ext\_to\_71GHz, NR\_IIOT\_URLLC\_enh, NR\_NTN\_solutions, NR\_pos\_enh, NR\_redcap, NR\_UE\_pow\_sav\_enh, NR\_cov\_enh, NR\_IAB\_enh, NR\_SL\_enh, NR\_MBS, NR\_DSS, LTE\_NR\_DC\_enh2, NR\_DL1024QAM\_FR1, NR\_RF\_FR1\_enh, NR\_SmallData\_INACTIVE, TEI17, NR\_newRAT To:RAN2 Cc:RAN4

* [014] Noted, taken into account

R2-2208955 LS on Rx beam sweeping factor for RRM measurements (R4-2214215; contact: LGE)

* [014] Noted, taken into account

R2-2208956 LS on Rel-17 RAN4 UE feature list for NR (R4-2214217; contact: CMCC)

* [014] Noted, taken into account

CRs

R2-2207276 Release-17 UE capabilities based on R1 and R4 feature lists (TS38.306) Intel Corporation CR Rel-17 38.306 17.1.0 0764 - B NR\_MBS-Core, NR\_IAB\_enh-Core, NR\_IIOT\_URLLC\_enh-Core, NR\_UE\_pow\_sav\_enh-Core, NR\_NTN\_solutions-Core, NR\_pos\_enh-Core, NR\_redcap-Core, NR\_SL\_enh-Core, NR\_FeMIMO-Core, NR\_cov\_enh-Core, NR\_DL1024QAM\_FR1, NR\_HST\_FR2, NR\_HST\_FR1\_enh, NR\_BCS4-Core, NR\_FR2\_FWA\_Bn257\_Bn258-Core, NR\_SAR\_PC2\_interB\_SUL\_2BUL, NR\_MG\_enh-Core, NR\_ext\_to\_71GHz-Core, NG\_RAN\_PRN\_enh-Core, NR\_QoE-Core, NR\_ENDC\_SON\_MDT\_enh-Core, NR\_SL\_relay-Core, NR\_SmallData\_INACTIVE, LTE\_NR\_MUSIM-Core, NR\_RF\_FR1\_enh, NR\_UDC-Core, LTE\_NR\_DC\_enh2-Core, NR\_slice-Core, NR\_RF\_FR2\_req\_enh2-Core, NR\_DSS-Core

* [014] Revised

R2-2207277 Release-17 UE capabilities based on R1 and R4 feature lists (TS38.331) Intel Corporation CR Rel-17 38.331 17.1.0 3244 - B NR\_MBS-Core, NR\_IAB\_enh-Core, NR\_IIOT\_URLLC\_enh-Core, NR\_UE\_pow\_sav\_enh-Core, NR\_NTN\_solutions-Core, NR\_pos\_enh-Core, NR\_redcap-Core, NR\_SL\_enh-Core, NR\_FeMIMO-Core, NR\_cov\_enh-Core, NR\_DL1024QAM\_FR1, NR\_HST\_FR2, NR\_HST\_FR1\_enh, NR\_BCS4-Core, NR\_FR2\_FWA\_Bn257\_Bn258-Core, NR\_SAR\_PC2\_interB\_SUL\_2BUL, NR\_MG\_enh-Core, NR\_ext\_to\_71GHz-Core, NG\_RAN\_PRN\_enh-Core, NR\_QoE-Core, NR\_ENDC\_SON\_MDT\_enh-Core, NR\_SL\_relay-Core, NR\_SmallData\_INACTIVE, LTE\_NR\_MUSIM-Core, NR\_RF\_FR1\_enh, NR\_UDC-Core, LTE\_NR\_DC\_enh2-Core, NR\_slice-Core, NR\_RF\_FR2\_req\_enh2-Core, NR\_DSS-Core

* [014] Revised

R2-2207962 Capturing one shot large UL timing adjustment Nokia, Nokia Shanghai Bell CR Rel-17 38.306 17.1.0 0783 - B NR\_HST\_FR2\_enh-Core

* [014] not pursued

R2-2207849 Editorial corrections on UE capabilities Nokia, Nokia Shanghai Bell CR Rel-17 38.306 17.1.0 0779 - F NR\_IIOT\_URLLC\_enh, LTE\_NR\_DC\_enh2, NR\_FeMIMO-Core, LTE\_NR\_DC\_enh2-Core, NR\_IAB\_enh-Core, NR\_RF\_FR2\_req\_enh2-Core, NR\_MG\_enh-Core, NR\_pos\_enh, NR\_cov\_enh2-Core

[014] Rap Ph1 Outcome:

P1: Take the following editorial changes into the mega 306 CR directly: Following changes in R2-2207849 with no comment received and can directly be included into the mega CR: *2,5,9,10,12,13,14,15,16,17,18,19*

- Following changes in R2-2207849 with comments received which require for modification

- 1: Abbreviation FG should not included; sSCell should be added as a definition clause

- 3: Should be modified as follow instead of removing part of the components:

 mg-ActivationRequestPRS-Meas-r17

 Indicates whether UE supports preconfiguration of MGs in RRC signalling for PRS measurements and supports the use of UL MAC CE, as specified in TS 38.321 [8], to request the activation/deactivation of the preconfigured MG for PRS measurements. The UE can include this field only if the UE supports *mg-ActivationCommPRS-Meas-r17*.

- 8: Only the 2nd change of removing the duplicate is taken.

* [014] Merged (partially and with revision)

R2-2207971 Corrections to UE capabilities Nokia, Nokia Shanghai Bell CR Rel-17 38.306 17.1.0 0784 - F NR\_FeMIMO-Core, NR\_IIOT\_URLLC\_enh-Core, NR\_NTN\_solutions-Core, NR\_MG\_enh-Core

[014] Rap Ph1 Outcome:

P3: Take the following changes in R2-2207971 directly into the mega 38.306 CR:

- remove the ‘the supportedBandwidthCombinationSetIntraENDC’ from the NOTE in channelBWs-DL-SCS-480kHz-FR2-2-r17, channelBWs-UL-SCS-480kHz-FR2-2-r17, channelBWs-DL-SCS-960kHz-FR2-2-r17 and channelBWs-UL-SCS-960kHz-FR2-2-r17

- the pre-requisite for mTRP-PUSCH-TypeA-CB-r17 below is missing and should be added acc to details in the report.

* [014] Merged (partially and with revision)

R2-2207972 Corrections on UE capabilities Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.1.0 3339 - F NR\_NTN\_solutions-Core

* [014] Not pursued

**Positioning**

R2-2208507 Discussion on positioning SRS transmission capability Huawei, HiSilicon discussion Rel-17 NR\_pos\_enh-Core

* [014] Noted

R2-2208508 Correction on positioning SRS transmission capability Huawei, HiSilicon CR Rel-17 38.306 17.1.0 0793 - F NR\_pos\_enh-Core

* [014] Endorsed, for merge

R2-2208509 Correction on positioning SRS transmission capability Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3431 - F NR\_pos\_enh-Core

* [014] revised

R2-2209061 Correction on positioning SRS transmission capability Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3431 1 F NR\_pos\_enh-Core

* [014] Endorsed, for merge

### 6.0.3 User Plane related aspects

E.g. cross WI coordination on MAC CEs.

This AI will be handled in a break-out session.

Withdrawn

R2-2207040 Correction to SR transmission with overlapping PUSCH Qualcomm Incorporated discussion Rel-17 Withdrawn

### 6.0.4 Other

E.g. Gaps Coordination etc

Stage-2 General

Offline

* [AT119-e][035][NR17] 38300 Miscellaneous Corrections (Nokia)

 Scope: Rapporteur Miscellaneous Corrections CR for Rel-17

 Intended outcome: Agreed CR

 Deadline: EOM (offline only, if possible)

R2-2208961 Miscellaneous Corrections Nokia (Rapporteur), Huawei CR Rel-17 38.300 17.1.0 0546 - F NG\_RAN\_PRN\_enh-Core, LTE\_NR\_DC\_enh-Core, NR\_MBS-Core

* [035] Agreed

Gap Coordination

Online Thu Aug18

R2-2206949 LS reply on coordination of R17 gap features (R4-2210624; contact: MediaTek) RAN4 LS in Rel-17 NR\_MG\_enh-Core, LTE\_NR\_MUSIM-Core, NR\_pos\_enh-Core, NR\_NTN\_solutions-Core To:RAN2 Cc:RAN1

*Moved from 6.0.2*

* Noted

R2-2208497 Discussion on Gap Coordination MediaTek Inc. discussion

* Noted

R2-2208623 Gaps coordination Ericsson discussion Rel-17

* Noted

R2-2207235 Leftover Issues for Gap Coordination OPPO discussion Rel-17 NR\_MG\_enh-Core, LTE\_NR\_MUSIM-Core, NR\_pos\_enh-Core, NR\_NTN\_solutions-Core

* Noted

DISCUSSION on the 3 docs above

* VDF think this need to be in stage-3.
* ZTE think we don’t need to clarify, think this situation is already in the TS. HW agrees, as R4 stated that there is no requirement. The network could still choose to do this, so prefer not to specify. VDF wonder if there then are some max numbers. HW confirm there are no max numbers for joint.
* Vivo support option 2 (in some TS). Apple slighty prefer option 2, think the UE will not know which to prioritize.
* QC understands that R4 may provide requirements for a later release. Support Option 2
* Samsung think several aspects need to be considered if to do joint config so safer to not allow this for now.
* Nokia wonder if the UE can reject the configuration. MTK think that we would specify that the network shall not. Ericsson think that UE caps shall regulate what the UE supports.
* Clarify in a TS that MUSIM gap, ePOS gap, and concurrent gaps are not configured together (in this rel)

*Chair: Continue offline*

* [AT119-e][015][NR17] Gap Coordination (MediaTek)

 Scope: Take online agreement into account, determine where to capture, and reflect this in a CR. Treat remaining tdoc/proposals, if anything agreeable, reflect in CR

 Intended outcome: Report, Agreed CR(s)

 Deadline: EOM (offline only, if possible)

R2-2209029 Report of [AT119-e][015][NR17] Gap Coordination (MediaTek) MedaiTek Inc.

* [015] Noted
* [015] Capture the agreement “MUSIM gap, ePOS gap, and concurrent gaps are not configured together” in 38.331 field description.

R2-2209091 Clarification on Joint Gap Configuration MediaTek Inc. CR Rel-17 38.331 17.1.0 3475 - F NR\_MG\_enh-Core, NR\_pos\_enh-Core, LTE\_NR\_MUSIM-Core

* [015] Agreed

Not treated

R2-2207147 Discussion on gaps coordination Huawei, HiSilicon discussion Rel-17 NR\_MG\_enh-Core

R2-2207236 Corrections on Gap Activation Limitation OPPO CR Rel-17 38.300 17.1.0 0507 - F NR\_MG\_enh-Core, LTE\_NR\_MUSIM-Core, NR\_pos\_enh-Core, NR\_NTN\_solutions-Core

Other

Wait for R1/R4

R2-2208472 Discussion on BWP operation without BW restrictions (FG6-1a) MediaTek Inc. discussion

## 6.1 NR Multicast

(NR\_MBS-Core; leading WG: RAN2; REL-17; WID: RP-201038)

Tdoc Limitation: 5 tdocs

It is encouraged to contribute with draft CRs or provide TP(s) for the affected specifications in the Annex of the contribution to facilitate the inclusion in the rapporteur CR.

### 6.1.1 Organizational and Stage-2

LS ins. CR Rapporteurs baseline correction CRs. For smaller corrections, text clarifications etc please contact CR Rapporteur before/instead of submitting a separate Tdoc.

Impact to stage-2 TS, and discussions on system level issues that need resolution, if any.

R2-2206910 Reply LS on HARQ process for MCCH and Broadcast MTCH(s) (R1-2205215; contact: BBC) RAN1 LS in Rel-17 NR\_MBS To:RAN2

R2-2206912 LS on TCI indication in multicast DCI (R1-2205369; contact: CMCC) RAN1 LS in Rel-17 NR\_MBS To:RAN2

R2-2206977 Reply LS on the MBS broadcast service continuity and MBS session identification (S4-220827; contact: Qualcomm) SA4 LS in Rel-17 NR\_MBS-Core, 5MBP3 To:RAN2 Cc:RAN3, SA2

R2-2207031 Miscellaneous corrections to TS 38.300 on NR MBS CATT CR Rel-17 38.300 17.1.0 0493 - F NR\_MBS-Core

R2-2207038 Response to SA4 LS for MBS user service parameters Samsung discussion Rel-17

R2-2207222 Correction on MBS Interest Indication vivo CR Rel-17 38.300 17.1.0 0503 - F NR\_MBS-Core

R2-2207223 Correction on Layer 2 Architecture for Broadcast vivo CR Rel-17 38.300 17.1.0 0504 - F NR\_MBS-Core

R2-2207590 Rapporteur corrections on RRC Huawei, CATT, HiSilicon CR Rel-17 38.331 17.1.0 3289 - F NR\_MBS-Core

R2-2207813 Miscellaneous corrections for MBS 38.323 Xiaomi CR Rel-17 38.323 17.1.0 0098 - F NR\_MBS-Core

R2-2208086 Clarification of group paging Ericsson discussion Rel-17 NR\_MBS-Core

R2-2208181 Stage2 corrections for NR MBS Nokia, Nokia Shanghai Bell CR Rel-17 38.300 17.1.0 0530 - F NR\_MBS-Core

R2-2208437 Corrections on MBS CMCC, Huaiwei CR Rel-17 38.300 17.1.0 0540 - F NR\_MBS-Core

R2-2208635 Discussion about SA4 LS on USD content with draft LS back ZTE, Sanechips discussion Rel-17 NR\_MBS-Core

### 6.1.2 RRC corrections

R2-2207032 Corrections related to MBS Interest Indication CATT CR Rel-17 38.331 17.1.0 3208 - F NR\_MBS-Core

R2-2207033 Corrections on Broadcast Configuration CATT, CBN CR Rel-17 38.331 17.1.0 3209 - F NR\_MBS-Core

R2-2207034 Corrections on multicast MRB handling CATT CR Rel-17 38.331 17.1.0 3210 - F NR\_MBS-Core

R2-2207035 Miscellaneous Corrections to TS 38.331 CATT CR Rel-17 38.331 17.1.0 3211 - F NR\_MBS-Core

R2-2207039 RRC Corrections for MBS Samsung discussion Rel-17 38.331

R2-2207225 Clarification on LCH Reassociation vivo discussion Rel-17 NR\_MBS-Core

R2-2207555 TMGI handling Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.1.0 3287 - F NR\_MBS-Core

R2-2207591 Clarfication on the early configuration of MBS broadcast search space Huawei, CBN, HiSilicon discussion Rel-17 NR\_MBS-Core

R2-2207592 Discussion on decoding of the TMGI in MII Huawei, CBN, HiSilicon discussion Rel-17 NR\_MBS-Core

R2-2208084 Broadcast sessions with the same MRB configuration Ericsson discussion Rel-17 NR\_MBS-Core

*(moved from 6.1.3)*

R2-2208088 MII signalling when SIB21 is absent Ericsson discussion Rel-17 NR\_MBS-Core

R2-2208095 Multicast-specific PUCCH-Config when multicast feedback is not configured with a priority value Qualcomm Incorporated CR Rel-17 38.331 17.1.0 3354 - F NR\_MBS-Core

R2-2208589 Counter Check Procedure for Multicast Samsung discussion Rel-17 NR\_MBS-Core

R2-2208639 Miscellaneous CR to TS 38.331 on NR MBS ZTE, Sanechips CR Rel-17 38.331 17.1.0 3457 - F NR\_MBS-Core

### 6.1.3 Other CP corrections

Including corrections to TS 38.304, features / UE caps developed in RAN2 (complementary to AI 6.0.2).

R2-2207036 38.304 Corrections for MBS CATT, Nokia, Huawei, HiSilicon, CBN CR Rel-17 38.304 17.1.0 0256 - F NR\_MBS-Core

R2-2207224 Clarification on Group Paging for Inactive UE vivo discussion Rel-17 NR\_MBS-Core

R2-2207554 MBS prioritization with slice based reselection Nokia, Nokia Shanghai Bell CR Rel-17 38.304 17.1.0 0264 - F NR\_MBS-Core

*(moved from 6.1.2)*

R2-2207562 Discussion on the maximum G-RNTI for MBS MediaTek inc. discussion Rel-17 NR\_MBS-Core

R2-2207563 Discussion and correction on UE capabilities for MBS MediaTek inc. discussion Rel-17 NR\_MBS-Core

R2-2207564 Corrections on the maximum G-RNTI for MBS MediaTek inc. draftCR Rel-17 38.331 17.1.0 F NR\_MBS-Core

R2-2207811 Simultaneous PDSCH processing capability for MBS Xiaomi discussion Rel-17 NR\_MBS-Core R2-2206114

R2-2207814 Correction on the G-RNTI and G-CS-RNTI configuration Xiaomi draftCR Rel-17 38.331 17.1.0 F NR\_MBS-Core

R2-2208085 Clarification of frequency prioritization for MBS broadcast Ericsson discussion Rel-17 NR\_MBS-Core

R2-2208087 MBS and RedCap Ericsson discussion Rel-17 NR\_MBS-Core

R2-2208500 Remaining MBS UE capability open issues Intel Corporation discussion Rel-17 NR\_MBS-Core

R2-2208636 On supported max number of G-RNTI for MBS broadcast ZTE, Sanechips discussion Rel-17 NR\_MBS-Core

### 6.1.4 MAC corrections

R2-2207046 MAC Corrections for MBS Samsung discussion Rel-17 38.321

R2-2207226 Clarification on pdsch-AggregationFactor in NR MBS vivo CR Rel-17 38.321 17.1.0 1310 - F NR\_MBS-Core

R2-2207470 38.321 CR Correction on the HARQ buffer flush for the MBS broadcast Beijing Xiaomi Software Tech draftCR Rel-17 38.321 17.1.0 F NR\_MBS-Core

R2-2207593 Clarification on retransmission and RTT timer maintenance Huawei, HiSilicon discussion Rel-17 NR\_MBS-Core

R2-2207594 Further consideration on inactivity timers for unicast and multicast Huawei, HiSilicon discussion Rel-17 NR\_MBS-Core

R2-2207812 HARQ process for MCCH and Broadcast MTCH(s) Xiaomi draftCR Rel-17 38.321 17.1.0 F NR\_MBS-Core

R2-2208637 Miscellaneous CR to TS 38.321 on NR MBS ZTE, Sanechips CR Rel-17 38.321 17.1.0 1395 - F NR\_MBS-Core

### 6.1.5 Other UP Corrections

Including corrections to PDCP, RLC and SDAP.

R2-2207370 PDCP related corrections for MBS Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_MBS-Core

R2-2207565 PDCP corrections for MBS MediaTek inc. discussion Rel-17 NR\_MBS-Core

R2-2207595 PDCP state variables handling during multicast MRB suspend Huawei, Xiaomi, CBN, HiSilicon discussion Rel-17 NR\_MBS-Core

R2-2207692 Misalignment between RRC and PDCP specs regarding multicastHFN-AndRefSN Lenovo discussion Rel-17

R2-2208590 Correction for Initial value of RX\_DELIV for Multicast Samsung discussion Rel-17 NR\_MBS-Core

R2-2208638 Miscellaneous CR to TS 38.323 on NR MBS ZTE, Sanechips CR Rel-17 38.323 17.1.0 0099 - F NR\_MBS-Core

## 6.2 MR DC CA further enhancements

(LTE\_NR\_DC\_enh2-Core; leading WG: RAN2; REL-17; WID: RP-201040)

Tdoc Limitation: 5 tdocs

No documents should be submitted to 6.2. Please submit to.6.2.x

Rapporteurs may provide baseline correction CRs containing smaller corrections, text clarifications etc - please contact the Rapporteur before providing contributions on those aspects.

### 6.2.1 Organizational and Stage-2 corrections

Including LSs and any rapporteur inputs.

Including Stage-2 corrections related to DCCA WI.

R2-2207319 Rel-17 Stage-2 CPAC corrections Nokia, Nokia Shanghai Bell CR Rel-17 37.340 17.1.0 0334 - F LTE\_NR\_DC\_enh2-Core

R2-2207741 Correction on CHO with MR-DC in TS 37.340 vivo CR Rel-17 37.340 17.1.0 0338 - F LTE\_NR\_DC\_enh2-Core

R2-2208404 Corrections for DCCA enhancement ZTE Corporation (Rapporteur), Sanechips, Samsung CR Rel-17 37.340 17.1.0 0340 - F LTE\_NR\_DC\_enh2-Core

R2-2208644 Corrections for further MR-DC enhancements Huawei, HiSilicon CR Rel-18 38.331 17.1.0 3459 - F NR\_mob\_enh2-Core

R2-2208645 Corrections for further MR-DC enhancements Huawei, HiSilicon CR Rel-18 36.331 17.1.0 4867 - F NR\_mob\_enh2-Core

R2-2208646 Corrections for further MR-DC enhancements Huawei, HiSilicon draftCR Rel-18 37.340 17.1.0 F NR\_mob\_enh2-Core

### 6.2.2 Efficient activation deactivation mechanism for one SCG and SCells

No documents should be submitted to 6.2.2. Please submit to.6.2.2.x

#### 6.2.2.1 MAC PDCP corrections

Including essential corrections to SCG activation/deactivation for MAC/PDCP.

R2-2207011 MIscellaneous Corrections for SCG activation\_deactivation Samsung Electronics Co., Ltd draftCR Rel-17 38.321 17.1.0 LTE\_NR\_DC\_enh2-Core

R2-2207393 Discussion on MAC and PDCP Aspects CATT discussion Rel-17 LTE\_NR\_DC\_enh2-Core

R2-2207541 Clarification on BFD while PSCell is deactivated Nokia, Nokia Shanghai Bell CR Rel-17 38.321 17.1.0 1322 - F LTE\_NR\_DC\_enh2-Core

R2-2207852 Correction of BFD procedure for deactivated PSCell Sharp discussion Rel-17 LTE\_NR\_DC\_enh2-Core

R2-2207853 CR related to BFD mechanism for deactivated PSCell Sharp CR Rel-17 38.321 17.1.0 1355 - F LTE\_NR\_DC\_enh2-Core

R2-2207854 Remaining issues for BWP operation in deactivated SCG Sharp discussion Rel-17 LTE\_NR\_DC\_enh2-Core

R2-2207855 CR on 38.321 for Remaining issues for BWP handling in deactivated SCG Sharp CR Rel-17 38.321 17.1.0 1356 - F LTE\_NR\_DC\_enh2-Core

R2-2207966 [E129] Stop/resume BFD at beam failure for deactivated SCG Ericsson discussion R2-2205797

R2-2208465 Correction for activation/deactivation of SCells Xiaomi draftCR Rel-17 38.321 17.1.0 LTE\_NR\_DC\_enh2-Core

R2-2208650 Correction on SCG deactivation Huawei, HiSilicon CR Rel-18 38.321 17.1.0 1396 - F NR\_mob\_enh2-Core

#### 6.2.2.2 RRC corrections

Including essential corrections to SCG activation/deactivation for RRC and related UE capabilities.

R2-2207305 BFD with two BFD-RS sets on deactivated SCG Ericsson discussion LTE\_NR\_DC\_enh2-Core

R2-2207306 [E131] Handling of UAI for deactivated SCG Ericsson discussion LTE\_NR\_DC\_enh2-Core

R2-2207394 Corrections on scg-State CATT discussion Rel-17 LTE\_NR\_DC\_enh2-Core

R2-2207395 Discussion on RRC Aspects for SCG Activation and Deactivation CATT discussion Rel-17 LTE\_NR\_DC\_enh2-Core

R2-2208286 UAI transmission in SCG deactivation Sharp discussion

R2-2208405 CR on SCG failure type ZTE Corporation, Sanechips CR Rel-17 38.331 17.1.0 3418 - F LTE\_NR\_DC\_enh2-Core

R2-2208648 SCG state in the MCG fast recovery Huawei, HiSilicon discussion Rel-18 NR\_mob\_enh2-Core

R2-2208651 UE assistance information while the SCG is deactivated Huawei, HiSilicon discussion Rel-18 NR\_mob\_enh2-Core

### 6.2.3 Conditional PSCell change addition

No documents should be submitted to 6.2.2. Please submit to.6.2.2.x

#### 6.2.3.1 Corrections to CPAC network aspects

Including essential corrections to of CPAC on network aspects (e.g. network communication via inter-node messages) handled by RAN2 and any aspects that require RAN3 interaction.

R2-2207320 Rel-17 CPAC corrections to NR 38.331 Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.1.0 3246 - F LTE\_NR\_DC\_enh2-Core

R2-2207321 On SN-MN awareness of conditional reconfiguration's validity or execution Nokia, Nokia Shanghai Bell discussion Rel-17 LTE\_NR\_DC\_enh2-Core

R2-2207494 Clarifications on prepared PSCell addition by candidate SN NEC discussion Rel-17 LTE\_NR\_DC\_enh2-Core

R2-2207495 Clarifications on prepared PSCell addition by candidate SN in CPC NEC CR Rel-17 37.340 17.1.0 0335 - F LTE\_NR\_DC\_enh2-Core

R2-2207636 On co-existence of MN and SN initiated conditional reconfiguration Lenovo, ZTE Corporation, Sanechips, CATT CR Rel-17 37.340 17.1.0 0336 - F LTE\_NR\_DC\_enh2-Core

R2-2207639 On maximum number of SN initiated conditional reconfigurations Lenovo, ZTE Corporation, Sanechips, CATT CR Rel-17 38.331 17.1.0 3300 - F LTE\_NR\_DC\_enh2-Core

R2-2207728 Outstanding issue for CPC Ericsson discussion Rel-16 LTE\_NR\_DC\_enh2-Core

R2-2207740 Discussion on release of conditional configuration vivo discussion Rel-17 LTE\_NR\_DC\_enh2-Core

#### 6.2.3.2 Corrections to CPAC UE signalling

Including essential corrections to CPAC that relate to RRC signalling between network and UE and related UE capabilities.

Including essential corrections to CHO + MR-DC (done as part of TEI17).

Including report of email discussion [Post118-e][227][DCCA] Resolving E022 and E023 for CPAC (Huawei)

R2-2207396 Discussion on Conditional Reconfiguration for CPAC and CHO CATT discussion Rel-17 LTE\_NR\_DC\_enh2-Core

R2-2207397 Discussion on CHO with SCG CATT discussion Rel-17 LTE\_NR\_DC\_enh2-Core

R2-2207462 Discussion on handling of simultaneous configuration of R16 and R17 CPC Apple discussion Rel-17 LTE\_NR\_DC\_enh2-Core

R2-2207463 CR for handling R16 CPC with R17 CPA/CPC Apple CR Rel-17 38.331 17.1.0 3266 - F LTE\_NR\_DC\_enh2-Core

R2-2207727 Introduction of signaling flows for CHO+MR-DC Ericsson CR Rel-17 37.340 17.1.0 0337 - B LTE\_NR\_DC\_enh2-Core

R2-2208406 Discussion on conditional reconfiguration release ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_DC\_enh2-Core

R2-2208407 CR on conditional reconfiguration release ZTE Corporation, Sanechips CR Rel-17 36.331 17.1.0 4858 - F LTE\_NR\_DC\_enh2-Core

R2-2208408 CR on conditional reconfiguration release ZTE Corporation, Sanechips CR Rel-17 38.331 17.1.0 3419 - F LTE\_NR\_DC\_enh2-Core

R2-2208647 [Post118-e][227][DCCA] Resolving E022 and E023 for CPAC (Huawei) Huawei, HiSilicon discussion Rel-18 NR\_mob\_enh2-Core

R2-2208649 Triggering of multiple cells for conditional reconfiguration execution Huawei, HiSilicon discussion Rel-18 NR\_mob\_enh2-Core

### 6.2.4 Temporary RS for SCell activation

Including essential corrections to of temporary RS for SCell activation..

R2-2207542 Corrections MAC regarding TRS activation Nokia, Nokia Shanghai Bell CR Rel-17 38.321 17.1.0 1323 - F LTE\_NR\_DC\_enh2-Core

R2-2207788 Correction to TRS for fast SCell activation vivo CR Rel-17 38.321 17.1.0 1340 - F LTE\_NR\_DC\_enh2

## 6.3 Multi SIM

(LTE\_NR\_MUSIM-Core; leading WG: RAN2; REL-17; WID: RP-212610)

Tdoc Limitation: 3 tdocs

Rapporteurs may provide baseline correction CRs containing smaller corrections, text clarifications etc - please contact the Rapporteur before providing contributions on those aspects.

### 6.3.1 Organizational

Including LSs and any rapporteur inputs (e.g. from ASN.1 ad-hoc meeting).

R2-2208000 Correction on MUSIM related changes Nokia, Nokia Shanghai Bell CR Rel-17 38.300 17.1.0 0522 - F LTE\_NR\_MUSIM-Core

R2-2208033 Update to gap handling for Multi-USIM (38.300) Ericsson CR Rel-17 38.300 17.1.0 0526 - F LTE\_NR\_MUSIM-Core

R2-2208461 Correction of NR RRC support for MUSIM vivo CR Rel-17 38.331 17.1.0 3422 - F LTE\_NR\_MUSIM-Core

R2-2208462 corrections on RACH procedure during MUSIM gaps vivo CR Rel-17 38.321 17.1.0 1386 - F LTE\_NR\_MUSIM-Core

### 6.3.2 Paging collision avoidance and paging with service indication

Including essential corrections to paging collision avoidance and paging with service indication and related UE capabilities.

### 6.3.3 NW switching for multi-SIM with or without leaving RRC\_CONNECTED

Including essential corrections to procedures for NW switching for multi-SIM with or without leaving RRC\_CONNECTED and related UE capabilities.

R2-2207164 CR on the Gap Numbers Restriction ZTE Corporation, Sanechips CR Rel-17 38.300 17.1.0 0500 - F LTE\_NR\_MUSIM-Core

R2-2207165 CR on the MUSIM-GapInfo ZTE Corporation, Sanechips CR Rel-17 38.331 17.1.0 3225 - F LTE\_NR\_MUSIM-Core

R2-2207166 Further Clarification on the Waiting Timer for Leaving Connected State ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_MUSIM-Core

R2-2207231 Corrections on NW Switching for Multi-SIM with or without Leaving RRC\_CONNECTED\_38.300 OPPO CR Rel-17 38.300 17.1.0 0506 - F LTE\_NR\_MUSIM-Core

R2-2207232 Corrections on NW Switching for Multi-SIM with or without Leaving RRC\_CONNECTED\_38.331 OPPO CR Rel-17 38.331 17.1.0 3236 - F LTE\_NR\_MUSIM-Core

R2-2207238 Corrections on Capability for MUSIM UE OPPO CR Rel-17 38.306 17.1.0 0763 - F LTE\_NR\_MUSIM-Core

R2-2207505 Discussion on handling of aperiodic MUSIM gap Huawei, HiSilicon discussion Rel-17 LTE\_NR\_MUSIM-Core

R2-2207670 Support eDRX in Multi-SIM scenario Spreadtrum Communications discussion Rel-17

R2-2207958 Corrections to MUSIM gaps Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3335 - F LTE\_NR\_MUSIM-Core

R2-2207961 Discussion on the MUSIM gap release during RRC reestablishment Huawei, HiSilicon discussion Rel-17

R2-2207987 Applicability of otherConfig MUSIM IEs for SRB3 Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.1.0 3342 - F LTE\_NR\_MUSIM-Core

R2-2207994 Clarification for MUSIM Assistance Information in DC for reconfiguration with Sync Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.1.0 3343 - F LTE\_NR\_MUSIM-Core

R2-2208029 Correction to musim-GapLength Ericsson CR Rel-17 38.331 17.1.0 3344 - F LTE\_NR\_DC\_CA\_enh-Core

R2-2208030 Mac updates for MUSIM Ericsson discussion

R2-2208032 Discussion on gap length IE optionality Ericsson discussion

R2-2208035 On Remaining Issues ofr MUSIM Switching Procedures Nokia, Nokia Shanghai Bell discussion Rel-18

=> Revised in R2-2208683

R2-2208683 On Remaining Issues ofr MUSIM Switching Procedures Nokia, Nokia Shanghai Bell discussion Rel-17

R2-2208344 Clarification on performing MUSIM gap configuration procedure Samsung Electronics Co., Ltd discussion Rel-17 38.331 LTE\_NR\_MUSIM-Core

R2-2208369 Further discussion on re-establishment handling while T346g timer is running Samsung Electronics Co., Ltd discussion Rel-17 38.331 LTE\_NR\_MUSIM-Core

R2-2208470 UE MAC operations during MUSIM gaps Samsung R&D Institute India discussion

R2-2208496 Correction on MUSIM gap configuration MediaTek Inc. CR Rel-17 38.331 17.1.0 3428 - F LTE\_NR\_MUSIM-Core

## 6.4 NR IAB enhancements

(NR\_IAB\_enh-Core; leading WG: RAN2; REL-17; WID: RP-211548)

Time budget: NA

Tdoc Limitation: 3 tdocs

### 6.4.1 Organizational and Stage-2

LS ins. CR Rapporteurs baseline correction CRs. For smaller corrections, text clarifications etc please contact CR Rapporteur. Impact to stage-2 TS, and discussions on system level issues that need resolution if any

* [AT119-e][016][IAB17] Stage-2 (vivo)

 Scope: Treat R2-2207784, R2-2208463, R2-2208604, R2-2208643,

 Determine agreeable parts, For agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs,

 Deadline: Schedule 1

R2-2209088 Report of [AT119-e][016][eIAB] Stage-2 (vivo) vivo

* [016] P1： Remove “in” in clause 10.10.2 as “providing NR IAB other information from the IAB-MT to the SN when the IAB-donor is ~~in~~ the SN”
* [016] P2： Change the caption of figure in 7.12-1 from “Figure 7.12-1: F1-C Transfer procedure in NR-DC; a) Scenario 1; b) Scenario 2” to “Figure 7.12-1: F1-C transfer in NR-DC; a) Scenario 1; b) Scenario 2”
* [016] P3: Update figures in clause 10.15 by switching the role of MN and SN as proposed by R2-2208643.
* [016] P4: change the caption of figure in Figure 10.15 to:

Figure 10.15-1: F1-C transfer in EN-DC

Figure 10.15-1: F1-C transfer between IAB-MT and SN (F1-terminating node) in NR-DC.

* [016] P5: Align “(non-)F1-terminating node” with description in TS38.401 by changing “node” to “IAB-donor” where applicable
* [016] P6； Change “corresponding non-F1-terminating node” to “F1-terminating IAB-donor”  in section 7.12
* [016] P7: remove the reference to TS 38.473 in clause 7.12 to “if the BH RLC channel used for transferring the F1-C traffic is configured on the cell group indicated for F1-C traffic transfer according to TS 38.331 [4]”

Stage-2

R2-2208463 Miscellaneous Corrections to 37340 vivo CR Rel-17 37.340 17.1.0 0343 - F NR\_IAB\_enh-Core

* [016] revised

R2-2209089 Miscellaneous Corrections to 37340 vivo CR Rel-17 37.340 17.1.0 0343 1 F NR\_IAB\_enh-Core

* [016] agreed

R2-2207784 Corrections on the terminology of F1-terminating IAB-donor Huawei, HiSilicon CR Rel-17 37.340 17.1.0 0339 - F NR\_IAB\_enh-Core

R2-2208604 Removing F1-termination node in F1-C transfer procedure Samsung Electronics Romania draftCR Rel-17 37.340 17.1.0 F NR\_IAB\_enh-Core

R2-2208643 Corrections on F1-C transfer Nokia, Nokia Shanghai Bell CR Rel-17 37.340 17.1.0 0344 - F NR\_IAB\_enh-Core

* [016] 3 CRs above are not pursued.

### 6.4.2 Control Plane

* [AT119-e][017][IAB17] Control Plane (Ericsson)

 Scope: Treat R2-2206929, R2-2206935, R2-2207190, R2-2207783, R2-2208642, R2-2208101,

 Determine agreeable parts, For agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs, Reply LS if applicable

 Deadline: Schedule 1

R2-2209077 Summary of [AT119-e][017][IAB17] Control Plane Ericsson

* [017] Noted, agreements reflected below

LS in

R2-2206929 LS on upper layers parameters for Rel-17 eIAB (R1-2205644; contact: AT&T) RAN1 LS in Rel-17 NR\_IAB\_enh-Core To:RAN2, RAN3

* [017] noted

R2-2206935 LS on range of power control parameters for eIAB (R4-2210642; contact: Samsung) RAN4 LS in Rel-17 NR\_IAB\_enh To:RAN1 Cc:RAN2

* [017] noted

RRC

R2-2208101 Rapporteur Miscellaneous RRC Corrections Ericsson CR Rel-17 38.331 17.1.0 3355 - F NR\_IAB\_enh-Core

Moved Here

- [017] Rap ph1 outcome: The CR is R2-2208101 is agreeable and used as baseline for incorporating the rest of the agreed changes.

* [017] revised

R2-2209078 Rapporteur Miscellaneous RRC Corrections Ericsson CR Rel-17 38.331 17.1.0 3355 1 F NR\_IAB\_enh-Core

* [017] Agreed

R2-2207190 Correction on the release of BAP config ZTE, Sanechips CR Rel-17 38.331 17.1.0 3231 - F NR\_IAB\_enh-Core

- [017] Rap ph1 outcome: The intention of CR in R2-2207190 is agreeable and actual change can be discussed in phase 2.

* [017] Merged, partially

R2-2207783 Corrections on availabilityCombinations and IAB-ResourceConfig for eIAB Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3314 - F NR\_IAB\_enh-Core

- [017] Rap ph1 outcome: We rely on IAB-node implementation for the handling of the availabilityCombination field(s), and IAB-node implementation to derive the corresponding applicable slot indices for a BWP with a different SCS as slotListSubcarrierSpacing in IAB-ResourceConfig.

* [017] Not pursued

R2-2208642 Corrections to the AI index configuration Ericsson CR Rel-17 38.331 17.1.0 3458 - F NR\_IAB\_enh-Core

* [017] Merged with rapporteur WI CR

### 6.4.3 User Plane

MAC

Online first

* [AT119-e][018][IAB17] MAC (Samsung)

 Scope: Await online, Take into account online progress. Treat remaining parts R2-2208907, R2-2207188, R2-2207625, R2-2207782, R2-2208100, R2-2208102,

 Determine agreeable parts, For agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs

 Deadline: Schedule 1

R2-2208907 Proposal for handling of submissions to AI 6.4.3 - eIAB MAC corrections (Samsung) Samsung discussion Rel-17 NR\_IAB\_enh-Core

Online Discussion W1

P1

* Ericsson are ok with current handling
* ZTE think the current design brings overhead.
* QC think the MAC CEs do the job, maybe not efficiently, but ok. Can evaluate offline
* Huawei think the intention is correct. Can think about it, but don’t want to change MAC CE format.
* Samsung would be fine either way
* Chair: ZTE proposes an efficiency enhancement. There seems to be some support Can keep it on the table, but there is opposition to change MAC CE format

P2

* Samsung think this is a clear error correction, but would require a format change.
* Huawei could accept format change if there really is a an error to correct.
* Chair: companies need more checking, keep on table CB

P3

* Ericsson think R1 is discussing this. Samsung think this is a done deal, a field is missing due to R2 mistake.
* Chair: again companies need more checking, keep on table CB

P4

* Samsung think FDM is already covered by “non-overlapping resources”. Ericsson think R3 has an indicator separate for FDM. Samsung think then there is a difference of terminology between RAN1 and RAN3.
* Chair: We come back.

P5

* Chair: We come back

*Chair: Continue offline*

R2-2208965 Summary of discussion [AT119-e][018][IAB17] MAC (Samsung) Samsung

* [018] RAN2 agrees to keep the existing design, i.e. does not ensure that recommended/restricted beam can only be associated with one single IAB-MT/child IAB-DU cell.
* [018] RAN2 agrees to keep the existing design i.e. not to introduce a change ensuring that each IAB-MT beam associated with a restricted beam is indicated per single cell pairing in Child IAB-DU Restricted Beam Indication MAC CE.
* [018] RAN2 agrees to introduce a change by adding a new field in DL TX Power Adjustment and Desired DL TX Power Adjustment MAC CEs, to indicate the index of reference CSI-RS used for (desired) DL Tx Power adjustment.
* [018] RAN2 agrees to keep existing design, i.e. does not introduce additional indication of requirement (or lack thereof) for FDM.
* [018] RAN2 agrees to introduce a change ensuring that multiplexing mode info is indicated per cell pairing for the case of Child IAB-DU Restricted Beam Indication/IAB-MT Recommended Beam Indication MAC CE.

R2-2207625 Miscellaneous corrections to 38.321 on Integrated Access and Backhaul for NR Rel-17 Samsung R&D Institute UK CR Rel-17 38.321 17.1.0 1327 - F NR\_IAB\_enh-Core

* [018] Revised

R2-2208966 Miscellaneous corrections to 38.321 on Integrated Access and Backhaul for NR Rel-17 Samsung R&D Institute UK CR Rel-17 38.321 17.1.0 1327 1 F NR\_IAB\_enh-Core

* [018] Agreed

R2-2207188 Corrections on IAB related MAC CEs ZTE, Sanechips CR Rel-17 38.321 17.1.0 1308 - F NR\_IAB\_enh-Core

R2-2207782 Corrections on the Desired Guard Symbol query and extended pre-BSR Huawei, HiSilicon CR Rel-17 38.321 17.1.0 1339 - F NR\_IAB\_enh-Core

R2-2208100 Corrections to multiplexing mode info definition Ericsson CR Rel-17 38.321 17.1.0 1369 - F NR\_IAB\_enh-Core

R2-2208102 Miscellaneous MAC Corrections Ericsson CR Rel-17 38.321 17.1.0 1370 - F NR\_IAB\_enh-Core

* [018] 4 CRs not pursued

BAP

* [AT119-e][019][IAB17] BAP (Huawei)

 Scope: Treat R2-2207701, R2-2207189, R2-2207402

 Determine agreeable parts, For agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs

 Deadline: Schedule 1

R2-2208957 Report of [AT119-e][019][IAB17] BAP   Huawei, HiSilicon

* [019] noted, agreements reflected below

- [019] Chair: Proposed and Discussed on whether to add the following or similar condition for descendant node inter-donor-DU re-routing (further discussion on the wording is still allowed): “ if this egress link belongs to F1-terminating donor topology of the boundary IAB-node or the transmitting part of IAB-MT is not at the boundary IAB-node, and there is an entry in the BH Routing Configuration not configured with *Non-F1-terminating IAB-donor Topology Indicator* IE whose Next Hop BAP Address corresponds to this egress link, or ”

R2-2207781 Miscellaneous corrections in TS 38.340 for eIAB Huawei, HiSilicon CR Rel-17 38.340 17.1.0 0029 - F NR\_IAB\_enh-Core

Moved Here

* [019] Changes are agreed, except for 3rd change.
* [019] Revised

R2-2208958 Miscellaneous corrections in TS 38.340 for eIAB Huawei, HiSilicon CR Rel-17 38.340 17.1.0 0029 1 F NR\_IAB\_enh-Core

* [019] Agreed

R2-2207189 Miscellaneous corrections on IAB in TS38.340 ZTE, Sanechips CR Rel-17 38.340 17.1.0 0027 - F NR\_IAB\_enh-Core

- [019] Rap ph1 outcome: 2nd change in R2-2207189 is not pursued. But clarification in TS 38.300 on the Type2 indication trigger can be considered in the next meeting.

* [019] The 1st change (only) is Merged with Rapporteur CR

R2-2207402 Support SCG deactivation for IAB nodes and other miscellaneous corrections Fujitsu CR Rel-17 38.340 17.1.0 0028 - F NR\_IAB\_enh-Core

* [019] The 1st change (only) is Merged with Rapporteur CR

## 6.5 NR IIoT URLLC

(NR\_IIOT\_URLLC\_enh-Core; leading WG: RAN2; REL-17; WID: RP-210854)

Tdoc Limitation: 3 tdocs

### 6.5.1 Organizational

Including LSs, rapporteur correction CR, and any rapporteur inputs (e.g. from ASN.1 ad-hoc meeting).

R2-2206922 LS on Rel-17 URLLC/IIoT RRC parameter updates (R1-2205507; contact: Nokia) RAN1 LS in Rel-17 NR\_IIOT\_URLLC\_enh To:RAN2

R2-2208012 Correction on PUCCH sSCell for TDD Nokia, Nokia Shanghai Bell, Ericsson, Qualcomm, Samsung, ZTE Corporation CR Rel-17 38.300 17.1.0 0524 - F NR\_IIOT\_URLLC\_enh-Core

### 6.5.2 Control Plane

A single CR with miscelaneous corrections is encouraged. Small editorial corrections should be sent directly to rapporteur. Big open issues can be discussed with contributions with CR in the appendix of the contribution

R2-2208060 Correction to the field description of usage-pdc Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3351 - F NR\_IIOT\_URLLC\_enh-Core

R2-2208556 CR on 38.331 for field description of PUCCH-Config for PUCCH Carrier Switch ZTE Corporation,Sanechips, Nokia, Nokia Shanghai Bell, Ericsson, Samsung, Qualcomm CR Rel-17 38.331 17.1.0 3440 - F NR\_IIOT\_URLLC\_enh-Core

### 6.5.3 User Plane

A single CR with miscelaneous corrections is encouraged. Small editorial corrections should be sent directly to rapporteur. Big open issues can be discussed with contributions with CR in the appendix of the contribution

R2-2207432 Discussion on MAC layer operation at PUSCH cancellation Apple discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

R2-2207433 Draft CR for MAC layer operation at PUSCH cancellation Apple, Ericsson CR Rel-17 38.321 17.1.0 1316 - F NR\_IIOT\_URLLC\_enh-Core

R2-2207506 Consideration on CG-PUSCH cancellation for UCI -only case CATT discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

R2-2207507 Simultaneous transmission of SR and PUSCH over different PUCCH groups CATT CR Rel-17 38.321 17.1.0 1321 - F NR\_IIOT\_URLLC\_enh-Core

R2-2207796 Issue on a CG transmission cancelled by a DG without UL-SCH OPPO discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

R2-2208013 MAC impact on PHY prioritization Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

R2-2208014 Correction on TB generated for UCI multiplexing Nokia, Nokia Shanghai Bell CR Rel-17 38.321 17.1.0 1361 - F NR\_IIOT\_URLLC\_enh-Core

R2-2208061 Discussion on deprioritized CG-PUSCH with UCI only TB Huawei, HiSilicon discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

R2-2208062 Discussion on simultaneous transmissions of SR and PUSCH Huawei, HiSilicon discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

R2-2208122 Open Issues in IIOT UP Qualcomm Incorporated discussion Rel-17

R2-2208355 Discussion on SR error handling on PUCCH Cells ASUSTeK discussion Rel-16 38.321 NR\_IIOT\_URLLC\_enh-Core

R2-2208588 Correction for De-prioritizatin of Overlapping Resources Samsung draftCR Rel-17 38.321 17.1.0 F NR\_IIOT\_URLLC\_enh-Core

## 6.6 Small Data enhancements

(NR\_SmallData\_INACTIVE-Core; leading WG: RAN2; REL-17; WID: RP-212594)

Tdoc Limitation: 3 tdocs

### 6.6.1 Organizational

Including LSs, rapporteur correction CR and any rapporteur inputs (e.g. from ASN.1 ad-hoc meeting).

R2-2206907 Reply LS on Small Data Transmission (C1-224149; contact: Apple) CT1 LS in Rel-17 NR\_SmallData\_INACTIVE-Core To:RAN2

R2-2206931 LS on transferring SDT configuration and SRS positioning Inactive configuration from DU to CU (R3-223955; contact: Google) RAN3 LS in Rel-17 NR\_SmallData\_INACTIVE-Core, NR\_pos\_enh To:RAN2

R2-2206953 Reply LS on TA validation for CG-SDT (R4-2211122; contact: ZTE) RAN4 LS in Rel-17 NR\_SmallData\_INACTIVE-Core To:RAN2

R2-2207900 Corrections on SDT Nokia, Nokia Shanghai Bell, Samsung CR Rel-17 38.300 17.1.0 0519 - F NR\_SmallData\_INACTIVE-Core

R2-2207928 Editor's correction to MAC spec for Small Data Transmission Huawei, HiSilicon CR Rel-17 38.321 17.1.0 1357 - F NR\_SmallData\_INACTIVE-Core

R2-2207976 draft reply LS on TA validation for CG-SDT ZTE Corporation, Sanechips LS out To:RAN4

R2-2208596 Discussion on RRC IEs in the RAN3 specification Google Inc. discussion Rel-17

### 6.6.2 User plane common aspects

A single CR with miscelaneous corrections is encouraged. Small editorial corrections should be sent directly to rapporteur. Big critical issues can be discussed in a contribution with CR in the appendix of the contribution

R2-2207001 cg-SDT-TimeAlignmentTimer Handling Samsung Electronics Co., Ltd discussion Rel-17 NR\_SmallData\_INACTIVE-Core

R2-2207004 Issues for RA during CG-SDT procedure Samsung Electronics Co., Ltd discussion Rel-17 NR\_SmallData\_INACTIVE-Core

R2-2207359 cg-SDT-TimeAlignmentTimer maintenance during 2-step RA Langbo CR Rel-17 38.321 17.1.0 1311 - F NR\_SmallData\_INACTIVE-Core

R2-2207360 cg-SDT-TimeAlignmentTimer handling for RA-SDT Langbo CR Rel-17 38.321 17.1.0 1312 - F NR\_SmallData\_INACTIVE-Core

R2-2207416 Analysis on remaining issues for SDT CATT discussion Rel-17 NR\_SmallData\_INACTIVE-Core

R2-2207571 Correction on SSB selection for CG-SDT LG Electronics Inc. discussion NR\_SmallData\_INACTIVE-Core

R2-2207572 CR for correction on SSB selection for CG-SDT LG Electronics Inc. CR Rel-17 38.321 17.1.0 1325 - F NR\_SmallData\_INACTIVE-Core

R2-2207573 Clarification of Bj increment LG Electronics Inc. discussion NR\_SmallData\_INACTIVE-Core

R2-2207815 Correction on the stored RSRP for TA validation Xiaomi draftCR Rel-17 38.321 17.1.0 F NR\_SmallData\_INACTIVE-Core

R2-2207901 LCH restrictions at SDT mode selection Nokia, Nokia Shanghai Bell, Ericsson, Huawei, HiSilicon, LGE CR Rel-17 38.321 17.1.0 1351 - F NR\_SmallData\_INACTIVE-Core

R2-2207902 MAC procedure issues Nokia, Nokia Shanghai Bell CR Rel-17 38.321 17.1.0 1352 - F NR\_SmallData\_INACTIVE-Core

R2-2207906 User plane issues for SDT NEC discussion Rel-17 NR\_SmallData\_INACTIVE-Core

R2-2207929 Text Proposal for RSRP-based TA validation Huawei, HiSilicon discussion Rel-17 NR\_SmallData\_INACTIVE-Core

R2-2207930 TAT maintenance for CG-SDT when receiving TAC MAC CE Huawei, Ericsson, HiSilicon, Nokia, Nokia Shanghai Bell, ZTE corporation discussion Rel-17 NR\_SmallData\_INACTIVE-Core

R2-2208117 LCH restrictions for CG-SDT Ericsson discussion Rel-17 NR\_SmallData\_INACTIVE-Core

R2-2208266 Correction on CG-SDT Transmisson vivo CR Rel-17 38.321 17.1.0 1377 - F NR\_SmallData\_INACTIVE-Core Late

R2-2208356 Correction on SR delay timer ASUSTeK discussion Rel-16 NR\_SmallData\_INACTIVE-Core

R2-2208640 Discussion on UDC continuity in SDT China Telecom discussion

R2-2208655 CR for TS38.300 on Support of UDC in SDT China Telecom CR Rel-17 38.300 17.1.0 0545 - B NR\_SmallData\_INACTIVE-Core

R2-2208656 CR for TS38.331 on Support of UDC in SDT China Telecom CR Rel-17 38.331 17.1.0 3461 - B NR\_SmallData\_INACTIVE-Core

R2-2208660 Clarification on uci-onPUSCH for CG-SDT vivo CR Rel-17 38.331 17.1.0 3462 - F NR\_SmallData\_INACTIVE-Core

### 6.6.3 Control plane common aspects

A single CR with miscelaneous corrections is encouraged. Small editorial corrections should be sent directly to rapporteur.

Big critical issues can be discussed in a contribution with CR in the appendix of the contribution

R2-2207003 T319a synchronisation issue Samsung Electronics Co., Ltd discussion Rel-17 NR\_SmallData\_INACTIVE-Core

R2-2207120 Response to RAN3 LS on SDT containers for F1-AP Intel Corporation discussion Rel-17 NR\_SmallData\_INACTIVE-Core

R2-2207417 Handling of sdt-Config upon reception of RRCRelease message CATT discussion Rel-17 NR\_SmallData\_INACTIVE-Core

R2-2207418 PDCP Re-establishment for SRB(s) upon initiation of SDT CATT discussion Rel-17 NR\_SmallData\_INACTIVE-Core

R2-2207907 Issues due to delay of the start of T319a NEC discussion Rel-17 NR\_SmallData\_INACTIVE-Core

R2-2207965 UAC for non-SDT initiation during SDT Google Inc. CR Rel-17 38.331 17.1.0 3337 - F NR\_SmallData\_INACTIVE-Core

R2-2207977 RRC corrections for SDT ZTE Corporation, Sanechips CR Rel-17 38.331 17.1.0 3340 - F NR\_SmallData\_INACTIVE-Core

R2-2207988 ROHC continuity and initial BWP related corrections Huawei, HiSilicon discussion Rel-17 NR\_SmallData\_INACTIVE-Core

R2-2208130 BWP for CG-SDT Ericsson discussion Rel-17 38.331 NR\_SmallData\_INACTIVE-Core

R2-2208218 RRC state preference during SDT procedure Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SmallData\_INACTIVE-Core

R2-2208269 Correction on SRB1 Handling in SDT vivo CR Rel-17 38.331 17.1.0 3393 - F NR\_SmallData\_INACTIVE-Core

R2-2208357 Correction on T319a ASUSTeK discussion Rel-16 NR\_SmallData\_INACTIVE-Core

## 6.7 NR Sidelink relay

(NR\_SL\_Relay-Core; leading WG: RAN2; REL-17; WID: RP-212601)

WI has been declared 100% complete

Tdoc Limitation: 4 tdocs

### 6.7.1 Organizational

Incoming LSs, TS updates, rapporteur inputs. This AI is reserved for rapporteur and organizational inputs. For LSes that need action or have impact beyond taking into account by CR rapporteurs: One tdoc by contact company (one company) to address the LS and potential reply is considered Rapporteur Input and may be provided. Related documents and proposed responses from companies other than the contact company should be submitted to the corresponding technical agenda item.

R2-2207021 Terminology alignment for Communication and Disocvery OPPO discussion Rel-17 NR\_SL\_relay-Core

R2-2207449 Miscellaneous corrections for NR Sidelink Relay (rapporteur CR) Apple CR Rel-17 38.321 17.1.0 1318 - F NR\_SL\_relay-Core, NR\_SL\_enh-Core

R2-2208194 Miscellaneous corrections on 38.304 for SL relay Ericsson (Rapporteur) CR Rel-17 38.304 17.1.0 0273 - F NR\_SL\_relay-Core Late

R2-2208484 RRC corrections for sidelink relay Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3427 - F NR\_SL\_relay-Core

### 6.7.2 Essential corrections

No documents should be submitted to 6.7.2. Please submit to 6.7.2.x.

#### 6.7.2.1 Stage 2 corrections

Including impact to 38.300.

R2-2207079 Correction on miscellaneous issues for NR sidelink relay in 38300 OPPO CR Rel-17 38.300 17.1.0 0496 - F NR\_SL\_relay-Core

R2-2207201 TP to introduce Rel-17 sidelink relay and discovery in TR 37.985 ZTE draftCR Rel-17 37.985 17.1.1 NR\_SL\_relay-Core

R2-2207203 Corrections for path switch in 38.300 ZTE CR Rel-17 38.300 17.1.0 0502 - F NR\_SL\_relay-Core

R2-2207450 Correction on user plane and control plan procedures for U2N relay in Stage 2 Apple CR Rel-17 38.300 17.1.0 0510 - F NR\_SL\_relay-Core

R2-2207513 Corrections on Sidelink Relay CATT CR Rel-17 38.300 17.1.0 0513 - F NR\_SL\_relay-Core

R2-2208004 Miscellaneous corrections on SL Relay specification Nokia, Nokia Shanghai Bell draftCR Rel-17 38.300 17.1.0 F NR\_SL\_relay-Core

R2-2208193 Miscellaneous corrections on 38.300 for SL relay Ericsson CR Rel-17 38.300 17.1.0 0534 - F NR\_SL\_relay-Core

R2-2208485 Stage2 clarifications on sidelink relay Huawei, HiSilicon draftCR Rel-17 38.300 17.1.0 NR\_SL\_relay-Core

#### 6.7.2.2 Control plane corrections

Including connection management, SI delivery, paging, access control for remote UE, and service continuity.

R2-2207018 Discussion on left issues for CP OPPO discussion Rel-17 NR\_SL\_relay-Core

R2-2207019 Correction for U2N Relay OPPO CR Rel-17 38.331 17.1.0 3207 - F NR\_SL\_relay-Core

R2-2207176 Correction on relay UE mobility handling Xiaomi CR Rel-17 38.331 17.1.0 3227 - F NR\_SL\_relay-Core

R2-2207177 Correction on SI request Xiaomi CR Rel-17 38.331 17.1.0 3228 - F NR\_SL\_relay-Core

R2-2207178 Correction on SIB12 forwarding Xiaomi CR Rel-17 38.331 17.1.0 3229 - F NR\_SL\_relay-Core

R2-2207179 Miscellaneous correction Xiaomi CR Rel-17 38.331 17.1.0 3230 - F NR\_SL\_relay-Core

R2-2207200 Correction on SUI message to differentiate V2X and ProSe service ZTE CR Rel-17 38.331 17.1.0 3319 - F NR\_SL\_relay-Core

R2-2207202 Correction on remote UE’s System Information acquisition ZTE CR Rel-17 38.331 17.1.0 3232 - F NR\_SL\_relay-Core

R2-2207362 Left issues for SUI message SHARP Corporation discussion NR\_SL\_relay-Core

R2-2207451 Correction on PC5 RLC channel configuration for L2 U2N relay Apple CR Rel-17 38.331 17.1.0 3264 - F NR\_SL\_relay-Core

R2-2207452 Correction on SUI procedure for L2 remote UE Apple CR Rel-17 38.331 17.1.0 3265 - F NR\_SL\_relay-Core

R2-2207514 Disussion on SRAP entity release CATT discussion Rel-17 NR\_SL\_relay\_enh-Core

R2-2207515 Miscellaneous Corrections on Sidelink RRC procedures CATT CR Rel-17 38.331 17.1.0 3273 - F NR\_SL\_relay\_enh-Core

R2-2207536 Correction on RRC connection suspension of remote UE Sharp discussion

R2-2207651 Correction for notification message with re-establishment Lenovo CR Rel-17 38.331 17.1.0 3301 - F NR\_SL\_relay-Core

R2-2207763 Correction on measurement reporting procedure for L2 U2N Relay vivo CR Rel-17 38.331 17.1.0 3309 - F NR\_SL\_relay-Core

R2-2207764 Miscellaneous corrections on L2 U2N CP procedures vivo CR Rel-17 38.331 17.1.0 3310 - F NR\_SL\_relay-Core

R2-2208156 Correction to logical channel selection for DRX in sidelink Relay Nokia, Nokia Shanghai Bell draftCR Rel-17 38.321 17.1.0 NR\_SL\_relay-Core

R2-2208195 Clarification on capability filter for sidelink relay Ericsson CR Rel-17 38.331 17.1.0 3376 - F NR\_SL\_relay-Core

R2-2208196 Clarification on SRB3 configuration for sidelink relay Ericsson CR Rel-17 38.331 17.1.0 3377 - F NR\_SL\_relay-Core

R2-2208197 Clarification on the prohibit timer for on-demand SIB for SL relay Ericsson CR Rel-17 38.331 17.1.0 3378 - F NR\_SL\_relay-Core

R2-2208215 Clarifications on UE PC5 capabilities for sidelink Relay Nokia, Nokia Shanghai Bell draftCR Rel-17 38.306 17.1.0 F NR\_SL\_relay-Core

R2-2208255 Correction on SidelinkUEInformationNR for SL relay Samsung CR Rel-17 38.331 17.1.0 3391 - F NR\_SL\_relay-Core

R2-2208256 Correction on measurement report of L2 U2N relay UE Samsung CR Rel-17 38.331 17.1.0 3392 - F NR\_SL\_relay-Core

R2-2208358 Clarifications on RRC procedural text for L2 U2N relay operation ASUSTeK CR Rel-17 38.331 17.1.0 3410 - F NR\_SL\_relay-Core

R2-2208359 Correction on PC5-RRC connection release ASUSTeK CR Rel-17 38.331 17.1.0 3411 - F NR\_SL\_relay-Core

R2-2208360 Clarification on radio resource release on L2 U2N Remote UE ASUSTeK CR Rel-17 38.331 17.1.0 3412 - F NR\_SL\_relay-Core

R2-2208478 Correction on rlf-TimersAndConstants Google Inc. CR Rel-17 38.331 17.1.0 3425 - F NR\_SL\_relay-Core

R2-2208486 Clarification on L2 Remote UE threshold conditions for service continuity Huawei, HiSilicon draftCR Rel-17 38.331 17.1.0 NR\_SL\_relay-Core

#### 6.7.2.3 User plane corrections

Including SRAP aspects and QoS.

R2-2207020 Correction on SRAP for L2 U2N Relay OPPO CR Rel-17 38.351 17.1.0 0006 - F NR\_SL\_relay-Core

R2-2207453 Correction on SRAP header handling in L2 Relay UE Apple CR Rel-17 38.351 17.1.0 0007 - F NR\_SL\_relay-Core

R2-2207516 Correction on PDCP for L2 U2N Relay CATT CR Rel-17 38.323 17.1.0 0097 - F NR\_SL\_relay-Core

R2-2208361 SRAP data PDU discard examination ASUSTeK CR Rel-17 38.351 17.1.0 0008 - F NR\_SL\_relay-Core

R2-2208487 Discussion on SRAP entity handling Huawei, HiSilicon discussion Rel-17 NR\_SL\_relay-Core

#### 6.7.2.4 Discovery and re- selection

Including 5G ProSe Direct Discovery for the non-relaying case. Re-using LTE discovery and re/selection as baseline.

R2-2207080 Discussion on MAC filtering for reception of discovery message OPPO discussion Rel-17 NR\_SL\_relay-Core

R2-2207654 Correction for relay reselection while T300 is running Lenovo CR Rel-17 38.331 17.1.0 3302 - F NR\_SL\_relay-Core

R2-2207765 On the problem for mode-1 dedicated discovery TX pool vivo discussion Rel-17 NR\_SL\_relay-Core

R2-2207766 [Draft] LS on mode-1 dedicated discovery transmission pool vivo LS out Rel-17 NR\_SL\_relay-Core To:RAN1

R2-2207967 Clarification of SD-RSRP and SL-RSRP in TS 38.331 NEC Corporation CR Rel-17 38.331 17.1.0 3338 - F NR\_SL\_relay-Core

R2-2208228 Support of SL CG for discovery message Huawei, HiSilicon discussion Rel-17 NR\_SL\_relay-Core

## 6.8 RAN slicing

(NR\_Slice -Core; leading WG: RAN2; REL-17; WID: RP-212534)

Tdoc Limitation: 2 tdocs

Proposals that do not provide relevant Stage-3 details will not be treated.

### 6.8.1 Organizational

Including LSs and any rapporteur inputs .

R2-2206909 Reply LS on Slice list and priority information for cell reselection (C1-224295; contact: OPPO) CT1 LS in Rel-17 NR\_slice-Core To:RAN2 Cc:SA2, CT

R2-2207951 Rapporteur corrections on TS 38.331 for RAN Slicing Huawei, HiSilicon, Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.1.0 3334 - F NR\_slice-Core

R2-2208001 Slicing related stage 2 corrections Nokia (rapporteur), Ericsson CR Rel-17 38.300 17.1.0 0523 - F NR\_slice-Core

R2-2208002 Slice Group considerations based on CT1 LS (R2-2206909/C1-224295) Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_slice-Core

### 6.8.2 Cell reselection

Including corrections to slice-specific cell reselection.

R2-2207337 Correction for cell reselection Lenovo discussion NR\_slice-Core Late

R2-2207338 CR for Correction for cell reselection Lenovo CR Rel-17 38.304 17.1.0 0259 - F NR\_slice-Core Late

R2-2207678 Miscellaneous corrections to slice-specific cell reselection Spreadtrum Communications discussion Rel-17

R2-2207797 Discussion on CT1 Reply LS on cell reselection OPPO discussion Rel-17 NR\_slice-Core

R2-2207818 Correction on TS 38.331 for RAN slicing CATT CR Rel-17 38.331 17.1.0 3316 - F NR\_slice-Core

R2-2207819 Discussion paper on the mapping between slices and NSAG CATT discussion Rel-17 NR\_slice-Core

R2-2207932 Cleanup on RAN Slicing Apple discussion Rel-17 NR\_slice-Core

R2-2207933 CR on slice availability provision for serving cell Apple CR Rel-17 38.331 17.1.0 3328 - F NR\_slice-Core

R2-2207934 CR to cleanup slice specific cell reselection Apple CR Rel-17 38.304 17.1.0 0268 - F NR\_slice-Core

R2-2207952 Discussion on the details of slice specific cell reselection Huawei, HiSilicon discussion Rel-17 NR\_slice-Core

R2-2207953 Corrections on TS 38.304 for RAN Slicing Huawei, HiSilicon CR Rel-17 38.304 17.1.0 0269 - F NR\_slice-Core

R2-2208003 Support of RAN sharing and equivalent PLMNs with slice specific cell reselection Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_slice-Core

R2-2208143 Corrections on slice-based cell re-selection in TS 38.304 Ericsson discussion Rel-17 NR\_slice-Core

R2-2208296 Possible configuration mismatch in slice specific cell reselection Kyocera discussion

R2-2208446 Correction on the rules in equal priority case for slice-based cell reselection CMCC, OPPO, Huawei, HiSilicon CR Rel-17 38.304 17.1.0 0279 - F NR\_slice-Core

R2-2208495 Slice specific reselection priorities in RRC Release Samsung R&D Institute India discussion

R2-2208517 Correction on per-TA NSAG for slice specific cell reselection Qualcomm Incorporated CR Rel-17 38.304 17.1.0 0280 - F NR\_slice-Core

R2-2208519 Issues with slice specific cell reselection Samsung R&D Institute India discussion

R2-2208607 38.304 CR Corrections on slice-based cell reselection Xiaomi, OPPO, CMCC draftCR Rel-17 38.304 17.1.0 F NR\_slice-Core

### 6.8.3 RACH

Including corrections to RAN slicing-specific RACH prioritization (i.e. aspects that are **not** discussed as part of the common RACH prioritization agenda).

R2-2207471 38.300 CR Corrections on slice based RACH configuration Beijing Xiaomi Software Tech draftCR Rel-17 38.300 17.1.0 F NR\_slice-Core

R2-2207798 Minor correction on slice-specific RACH OPPO CR Rel-17 38.321 17.1.0 1343 - F NR\_slice-Core

R2-2208142 Miscellaneous corrections for RAN slicing enhancements Ericsson CR Rel-17 38.331 17.1.0 3363 - F NR\_slice-Core

## 6.9 UE Power Saving

(NR\_UE\_pow\_sav\_enh-Core; leading WG: RAN2; REL-17; WID: RP-212632)

Tdoc Limitation: 3 tdoc

### 6.9.1 Organizational and Stage-2

LS ins. CR Rapporteurs baseline correction CRs. For smaller corrections, text clarifications etc please contact CR Rapporteur. Impact to stage-2 TS, and discussions on system level issues that need resolution if any

R2-2206932 Reply LS on PEI and UE Subgrouping (R3-224004; contact: ZTE) RAN3 LS in Rel-17 NR\_UE\_pow\_sav\_enh-Core To:RAN2 Cc:SA2, CT1

* Noted

* [AT119-e][029][ePowSav] Stage-2 38300 (Huawei)

 Scope: Treat R2-2207070, R2-2208015, R2-2208227, R2-2207745. Determine agreeable parts, reflects agreeable parts in a CR.

 Intended outcome: Report, Agreed CR 38300, offline only if possible.

 Deadline: W2 Wednesday (can CB W2 Thu if required)

R2-2209007 Summary of [AT119-e][029][ePowSav] Stage-2 38300 Huawei, HiSilicon

Online W2 Thu, only on P5

* Remove “connected mode” for idle/inactive TRS configuration

R2-2207070 Stage-2 correction on UE-ID based subgrouping OPPO CR Rel-17 38.300 17.1.0 0495 - F NR\_UE\_pow\_sav\_enh-Core

* [029] The correction in CR R2-2207070 is agreeable, Merged with final CR 0552

R2-2208015 Stage 2 correction on power saving Nokia, Nokia Shanghai Bell CR Rel-17 38.300 17.1.0 0525 - F NR\_UE\_pow\_sav\_enh-Core

* [029] The corrections in CR R2-2208015 are pursued with the following update:

1st change: change “will apply” to “applies”

2nd change: use the wording to align with TS 38.304

* [029] Merged with final CR 0552

R2-2208227 Corrections for UE power saving enhancements In 38.300 Huawei, HiSilicon CR Rel-17 38.300 17.1.0 0536 - F NR\_UE\_pow\_sav\_enh-Core

* [029] The corrections in CR R2-2208227 are not pursued.

R2-2209008 Corrections to UE power saving enhancements in TS 38.300 Huawei, HiSilicon, Nokia, Nokia Shanghai Bell CR Rel-17 38.300 17.1.0 0552 - F NR\_UE\_pow\_sav\_enh-Core

* [029] Agreed

TRS in Idle/Inactive

R2-2207745 Correction on idle/inactive TRS for ePowSav vivo CR Rel-17 38.300 17.1.0 0516 - F NR\_UE\_pow\_sav\_enh-Core

* [029] The corrections in CR R2-2207745 are pursued with the following update:

- 2nd change: editorial changes can be agreed

* [029] Merged with final CR 0552

### 6.9.2 Control Plane

CHAIR: PLAN: WHEN DISCUSSIONS [003] and [004] has converged we do CR discussions for 38.331 (CATT), 38.304 (vivo), 38.306 (Nokia). Can continue in short post discussions if needed.

RLM BFD relaxation

R2-2208922 Summary of RLM/BFD relaxation (vivo) vivo

* Noted

DISCUSSION online

* MTK think this should be network implementation, should allow to be configured together but UE should only send indication when UE is performing RLMBFD.
* Oppo think the simplest is to have a restriction of configuration. ZTE agrees support for case 1 alt2, think there is little use cases for other
* LG think how the UAI report sending is an issue over deactivated SCG, think it can be sent over MCG.
* Xiaomi think these are not configured together, and R4 has never considered this.
* QC think R4 TS says measurement relaxation includes SCG, maybe somewhat vague on whether it applies to deactivated.
* Huawei think this should be for network impl, and no restriction is needed. Can send message over MCG.
* CATT think this is for RLM bec for BFD there is no report for deactivated cell (already in RRC). Think the flexibility can be useful, as the reporting is useful iin the beginning, to tune the thresholds, even before activation of SCG. Agree that MCG can be used for messaging.
* Vivo indicates that R4 TS need to be updated fif we have a config restriction

SOH Case 1

* For Case 1, we go with Alt 1 (no configuration restriction)
* For Case 2, BFD and RLM is not operating, and thus BFD and RLM relaxation and the associated reporting can also be considered non-operational (regardless configuration), can consider TS update to make this clear.
* [AT119-e][003][ePowSav] RLM/BFD relaxation (vivo)

 Scope: Based on online progress and discussion, continue identify agreeable parts and impacts.

 Intended outcome: Report (with agreements), offline if possible.

 Deadline: W2 Wednesday (can CB W2 Thu if required)

R2-2209003 Report of [AT118-e][003][ePowSav] RLM and BFD relaxation (vivo) vivo

DISCUSSION

- CATT think we agreed that we don’t want configuration restrictions, think that the functionality should be allowed when configured. Vivo agrees. The UE shall just follow the network configuration.

- Ericsson think the reporting is not useful and suspend the reporting when SCG is deactivated.

- Xiaomi think similar issue is discussed for BCCH enhancement. HW clarifies that for DCCH it was agreed that SCG UAI signalling is allowed and this is easier than not do the signalling.

- VDF think we can just apply current way.

- Chair proposes to clarify also case 2 to avoid ambiguity. Vivo think the TP also addresses case 2. THUS P5 need no further discussion or decision.

* UE do the reporting regardless the SCG activation state (as long as bfd-and-RLM configuration is true).
* UAI for SCG RLM/BFD relaxation is reported over MCG, if SCG is deactivated with *bfd-and-RLM* configuration is true.
* TP provided in R2-2207399 is agreed as baseline (wording can be discussed in CR discussion).
* Send LS to RAN4 for information (offline 003, ready EOM)

R2-2207399 Consideration on RLM/BFD relaxation configuration with bfd-and-RLM CATT discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

R2-2208091 RLM and BFD relaxation status reporting for deactivated SCG Ericsson discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

R2-2207538 Clarification on the state report of RLM BFD relaxation Sharp discussion R2-2205286

R2-2207743 Remaining issues on RLM/BFD relaxation vivo discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

R2-2208225 Discussion on RLM/BFD relaxation and SCG deactivation Huawei, HiSilicon discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

* [003] 5 tdocs above are Noted

R2-2207744 Correction on RRC for ePowSav vivo CR Rel-17 38.331 17.1.0 3306 - F NR\_UE\_pow\_sav\_enh-Core Late

* [003] whether any change from this CR (as is or modified) should be included can be discussed during post-meeting email discussion on 331 CR.
* [004] discussion on the 2nd change is postponed

R2-2208555 CR for the field description of searchspaceGroupList and general description of RLMBFD relaxation ZTE Corporation,Sanechips CR Rel-17 38.331 17.1.0 3439 - F NR\_UE\_pow\_sav\_enh-Core

* [003] The 2nd change is agreed with some editorial update. Continue review the detailed wording during post-meeting email discussion on 331 CR.
* [028] Capture in 38.331 the search space related change present in R2-2208555.

R2-2208224 Corrections on the prohibit timer for RLM/BFD relaxation and the TRS availability Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3383 - F NR\_UE\_pow\_sav\_enh-Core

* [003] The 2nd change in R2-2208224 is not agreed.

R2-2207071 Correction on RLM/BFD relaxation for SCG deactivation – alternative 1 OPPO CR Rel-17 38.331 17.1.0 3215 - F NR\_UE\_pow\_sav\_enh-Core

R2-2207072 Correction on RLM/BFD relaxation for SCG deactivation – alternative 2 OPPO CR Rel-17 38.331 17.1.0 3216 - F NR\_UE\_pow\_sav\_enh-Core

R2-2207403 BFD/RLM relaxation for deactivated SCG Fujitsu CR Rel-17 38.331 17.1.0 3257 - F NR\_UE\_pow\_sav\_enh-Core

R2-2207404 BFD relaxation for serving cell with mTRP Fujitsu CR Rel-17 38.331 17.1.0 3258 - F NR\_UE\_pow\_sav\_enh-Core

* [003] 4 CRs above are not pursued

R2-2209130 LS to RAN4 on RLM/BFD relaxation for ePowSav RAN2 LS out to:RAN4 Rel-17 NR\_UE\_pow\_sav\_enh-Core

* [003] LS out is approved (this is the final version)

Subgrouping and PEI

R2-2208909 Summary of Subgrouping/PEI contributions (MediaTek) MediaTek inc.

* Noted

R2-2208609 38.304 Clarifications on SubgroupID for UE-ID based subgrouping Xiaomi, ZTE Corporation,Vivo, Ericsson, CATT draftCR Rel-17 38.304 17.1.0 NR\_UE\_pow\_sav\_enh-Core

* Chair wonder if we can agree this.
* Huawei think we should align solution with PO solution already in the TS. Nokia agrees with Huawei and think this proposal is better.
* Xiaomi think HW way can also work, but may need to change the 38300 then.
* Vivo think that we should not depend on UE capability, and just specify in the TS.
* Solution in this doc is agreed, merged with the 304 CR

* [AT119-e][004][ePowSav] Subgrouping/PEI (MediaTek)

 Scope: Based on online progress, discussion, R2-2208909 and referenced input, continue identify agreeable parts and impacts. No Need to include Stage-2 etc.

 Intended outcome: Report (with agreements), offline if possible.

 Deadline: W2 Wednesday (can CB W2 Thu if required)

R2-2209018 Report of [AT119-e][004][ePowSav] Subgrouping/PEI MediaTek

* [004] Noted, agreements reflected below

R2-2207005 Clarification of PEI monitoring related parameters Samsung Electronics Co., Ltd discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

* [004] Noted, proposals herein are not pursued

[R2-2207206](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CTSGR2_119-e%5CDocs%5CR2-2207206.zip) 38.331 Corrections on PDCCH-ConfigCommon for PEI Xiaomi Communications draftCR Rel-17 38.331 17.1.0 NR\_UE\_pow\_sav\_enh-Core

* [004] postponed (dep RedCap)

R2-2208334 Clarification on paging early indication with paging subgrouping during emergency call MediaTek Inc. CR Rel-17 38.304 17.1.0 0282 - F NR\_UE\_pow\_sav\_enh

* [004] Postponed, addressed in long email discussion

R2-2208554 CR on 38.304 for PEI and pagingsubgrouping ZTE Corporation,Sanechips CR Rel-17 38.304 17.1.0 0281 - F NR\_UE\_pow\_sav\_enh-Core

* [004] UE subgrouping specification clarifications in 38.304 CR R2-2208554 can be used as baseline clarifications, together with comments received in email discussion on detailed wording etc. Continue in the 304 CR Post-discussion.
* [online] the first bullet (unchanged in the CR), need modification.

R2-2208016 Clarification on PEI and subgrouping capability Nokia, Nokia Shanghai Bell CR Rel-17 38.306 17.1.0 0785 - F NR\_UE\_pow\_sav\_enh-Core

* [004] endorsed to be merged into capability mega CR.

R2-2207398 Miscellaneous CR on TS 38.331 for ePowSav CATT, Xiaomi CR Rel-17 38.331 17.1.0 3254 - F NR\_UE\_pow\_sav\_enh-Core

* [003] The 1st change in this CR is agreed.
* [004] The 2nd change in this CR is agreed

R2-2208226 Correction on the UE\_ID based subgrouping Huawei, HiSilicon CR Rel-17 38.304 17.1.0 0275 - F NR\_UE\_pow\_sav\_enh-Core

R2-2207051 Correction to UE ID based subgrouping OPPO CR Rel-17 38.304 17.1.0 0257 - F NR\_UE\_pow\_sav\_enh-Core

R2-2208017 Clarification on subgrouping descriptions Nokia, Nokia Shanghai Bell CR Rel-17 38.304 17.1.0 0270 - F NR\_UE\_pow\_sav\_enh-Core

* [004] 3 CRs above not pursued

R2-2207742 Miscellaneous CR on TS 38.304 for ePowSav vivo CR Rel-17 38.304 17.1.0 0267 - F NR\_UE\_pow\_sav\_enh-Core

* [Post119-e][039] Revised
* [Post119-e][039][ePowSav] 38304 CR (vivo)

 Scope: Reflect the agreements in a CR, Agree CR

 Intended outcome: Agreed CR

 Deadline: Short (can start before end of meeting)

* [Post119-e][040][ePowSav] 38331 CR (CATT)

 Scope: Reflect the agreements in a CR, Agree CR

 Intended outcome: Agreed CR

 Deadline: Short (can start before end of meeting)

* [Post119-e][043][ePowSav] paging early indication with paging subgrouping during emergency call (MediaTek)

 Scope: Determine whether there are issues that need resolution, and if so, determine ways forward. Pave the way for agreements at next meeting

 Intended outcome: Report

 Deadline: long

### 6.9.3 User Plane

* [AT119-e][028][ePowSav] PDCCH Skip (Ericsson)

 Scope: Treat R2-2208090, Determine agreeable parts. Capture agreeable part in MAC CR.

 Can do one more round of treatment for R2-2208089, identify critical arguments if any, prepare for CB.

 Intended outcome: Report, Agreed MAC CR

 Deadline: In time for online CB W2 Thu if required otherwise EOM

R2-2209012 Summary of [AT119-e][028][ePowSav] PDCCH Skip Ericsson

DISCUSSION Online only on P3

- Ericsson think R2 don’t consider the PDCCH skip timer as active time.

- Ericsson think that using PDCCH skip without C DRX is a bad configuration that has no use case and some side effects. Nokia agrees with Ericsson, and think the WI refers to active time, think RAN1 is not discussing this.

- Vivo think it is up to network what to configure, think that RAN1 has not decided this (think they are discussing). LG agrees with vivo, no need for configuration relation.

- Chair: Has sympathy for both sides, think also it is good to restrict flexibility. However no hard technical arguments and no clear majority. Chair think that R2 will not come back to this issue unless there is new information.

* No consensus in R2 to restrict PDCCH skip to configurations with C-DRX
* [028] No need identified to further clarify PDCCH skipping in 38.321.
* [028] Wait for RAN1 outcome and postpone update of PDCCH skipping in 38.300.
* [028] Capture in 38.331 the search space related change present in R2-2208555.

R2-2208089 PDCCH monitoring adaptation and C-DRX (RIL V146) Ericsson discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

Online W1 Wed

- Huawei think this is discussed in R1 in this meeting. Vivo think this is controversial in R1. Ericsson checked and this has already been discussed in R1, Nokia agrees with Ericsson.

- Chair: if this is up for R1 discussion, We can wait for R1, but we can also keep this on the table for later CB.

* Noted

R2-2208090 PDCCH skipping in RAN1 and RAN2 specifications Ericsson discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

* [028] Noted

## 6.10 NR Non-Terrestrial Networks (NTN)

(NR\_NTN\_solutions-Core; leading WG: RAN2; REL-17; WID: RP-211557)

Tdoc Limitation: 5 tdocs

### 6.10.1 Organizational

LSs, rapporteur inputs and other organizational documents. Rapporteur inputs and other pre-assigned documents in this AI do not count towards the tdoc limitation.

#### 6.10.1.1 LS in

For LSes that need action: one tdoc by contact company to address the LS and potential reply is considered.

Rapporteur input may be provided.

R2-2206948 Reply LS on measurement gap enhancements for NTN (R4-2210611; contact: Intel) RAN4 LS in Rel-17 NR\_NTN\_solutions, NR\_MG\_enh To:RAN2

R2-2206968 LS reply on Reply LS on NTN specific User Consent and UE location in connected mode in NTN (S3-221268; contact: Ericsson) SA3 LS in Rel-17 NR\_NTN\_solutions-Core To:RAN2 Cc:SA2, RAN3, CT1, CT4

R2-2207067 Discussion on CT1 LS on not allowed PLMN at the current location OPPO discussion Rel-17 NR\_NTN\_solutions-Core

R2-2207271 Discussion on RAN4 reply LS on measurement gaps Intel Corporation discussion Rel-17 NR\_NTN\_solutions-Core

#### 6.10.1.2 Rapporteur inputs

CR Rapporteurs may provide baseline correction CRs containing smaller corrections, text clarifications, etc - please contact the CR rapporteurs before providing contributions on those aspects.

R2-2207065 NTN Stage-2 correction OPPO, Thales CR Rel-17 38.300 17.1.0 0494 - F NR\_NTN\_solutions-Core

R2-2207097 Draft Summary for NR support for Non-Terrestrial Networks (NTN) THALES WI summary Rel-17 NR\_NTN\_solutions

R2-2207322 Rel-17 NTN Stage-2 (Rapporteur) corrections Nokia, Nokia Shanghai Bell CR Rel-17 38.300 17.1.0 0509 - F NR\_NTN\_solutions-Core

R2-2207924 Corrections for Release-17 NTN Ericsson CR Rel-17 38.331 17.1.0 3326 - F NR\_NTN\_solutions-Core

R2-2208272 Corrections to Release-17 NR Non-Terrestrial Networks (NTN): RAN2#119e InterDigital CR Rel-17 38.321 17.1.0 1378 - F NR\_NTN\_solutions-Core

R2-2208329 Miscellaneous corrections on 38.304 ZTE Corporation, Sanechips, CMCC, vivo, Apple CR Rel-17 38.304 17.1.0 0277 - F NR\_NTN\_solutions-Core

### 6.10.2 User Plane

#### 6.10.2.1 MAC corrections

R2-2207240 Discussion on TA report Samsung Research America discussion Rel-17 NR\_NTN\_solutions-Core

R2-2207241 Discussion on remaining MAC issues Samsung Research America discussion Rel-17 NR\_NTN\_solutions-Core

R2-2207443 NTN UL synchronization correction in MAC Apple CR Rel-17 38.321 17.1.0 1317 - F NR\_NTN\_solutions-Core

R2-2207596 Discussion on the issue of outdated UE TA at NW side Huawei, HiSilicon discussion Rel-17 NR\_NTN\_solutions-Core

R2-2207598 Correction on maintenance of UL synchronization in MAC Huawei, HiSilicon CR Rel-17 38.321 17.1.0 1326 - F NR\_NTN\_solutions-Core

R2-2207628 Remaining issue on UL synchronization in NR NTN vivo discussion

R2-2207629 On corrections to random access procedure in NR NTN vivo discussion

R2-2208273 Blind Msg3 retransmission in Rel-17 NTN InterDigital discussion Rel-17 NR\_NTN\_solutions-Core

R2-2208274 SR configuration for Timing Advance MAC CE InterDigital discussion Rel-17 NR\_NTN\_solutions-Core

R2-2208275 Clarifications to the Timing Advance reporting procedure InterDigital discussion Rel-17 NR\_NTN\_solutions-Core

R2-2208382 Correction on TA Reporting Triggering Condition for NTN in TS 38.321 CATT CR Rel-17 38.321 17.1.0 1384 - F NR\_NTN\_solutions-Core

R2-2208560 On issues for Timing Advance Report MAC CE Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_NTN\_solutions-Core

R2-2208569 Remaining UP issues in NTN ZTE Corporation, Sanechips discussion Rel-17 NR\_NTN\_solutions-Core

R2-2208570 Correction to 38321 on TA report ZTE Corporation, Sanechips CR Rel-17 38.321 17.1.0 1391 - F NR\_NTN\_solutions-Core

R2-2208571 Correction to 38321 on ra-ContentionResolutionTimer ZTE Corporation, Sanechips CR Rel-17 38.321 17.1.0 1392 - F NR\_NTN\_solutions-Core

R2-2208576 Clarification on the condition of contention resolution not successful Xiaomi CR Rel-17 38.321 17.1.0 1393 - F NR\_NTN\_solutions-Core

R2-2208675 R17 NR NTN User Plane issues Ericsson discussion Rel-17

#### 6.10.2.2 Other

Contributions on any other UP issues.

R2-2207052 left issues on UP in NTN OPPO discussion Rel-17 NR\_NTN\_solutions-Core

R2-2207341 Outdated UE specific Koffset Qualcomm Incorporated discussion Rel-17 NR\_NTN\_solutions-Core

R2-2207671 Discussion on the RA counter in case of ephemeris update Spreadtrum Communications discussion Rel-17

R2-2208561 On Msg3 blind retransmission and UE behaviour upon validity timer expiry Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_NTN\_solutions-Core

R2-2208678 R17 NR NTN stage 2 corrections Ericsson discussion Rel-17

### 6.10.3 Control Plane

#### 6.10.3.1 Idle inactive mode corrections

Contributions on 38.304 impacts.

R2-2207323 Rel-17 NTN IDLE mode corrections Nokia, Nokia Shanghai Bell CR Rel-17 38.304 17.1.0 0258 - F NR\_NTN\_solutions-Core

R2-2207440 Clarification on the suitable cell in NTN Apple CR Rel-17 38.304 17.1.0 0260 - F NR\_NTN\_solutions-Core

R2-2207632 Clarification on time-based cell reselection in TS 38.304 vivo CR Rel-17 38.304 17.1.0 0266 - F NR\_NTN\_solutions-Core

R2-2207863 Discussion on the acquisition and prediction of ephemeris for SIB19 BUPT discussion Rel-17

R2-2208094 R17 NR NTN Idle mode corrections Ericsson discussion NR\_NTN\_solutions-Core

R2-2208137 Correction on Measurement rules for cell re-selection for NR NTN Samsung R&D Institute UK CR Rel-17 38.304 17.1.0 0272 - F NR\_NTN\_solutions-Core

R2-2208379 Miscellaneous corrections on 38.304 CATT CR Rel-17 38.304 17.1.0 0278 - F NR\_NTN\_solutions-Core

#### 6.10.3.2 RRC corrections

##### 6.10.3.2.1 SMTC and gaps

SMTC and gaps related corrections

R2-2207149 Remaining issues on SMTCs and gaps Huawei, HiSilicon discussion Rel-17 NR\_NTN\_solutions-Core

R2-2207242 Discussion on SMTC related issues Samsung Research America discussion Rel-17 NR\_NTN\_solutions-Core

R2-2207243 Draft 331 CR for NR NTN SMTC Samsung Research America draftCR Rel-17 38.331 17.1.0 F NR\_NTN\_solutions-Core

R2-2207344 Correction to the frame boundary alignment indication from the source Qualcomm Incorporated CR Rel-17 38.331 17.1.0 3251 - F NR\_NTN\_solutions-Core

R2-2207345 Reporting SMTC issue in measurement results Qualcomm Incorporated CR Rel-17 38.331 17.1.0 3252 - F NR\_NTN\_solutions-Core

R2-2208214 Correction to associate two concurrent measurement gaps to one frequency layer for NR NTN Nokia, Nokia Shanghai Bell CR Rel-18 38.331 17.1.0 3382 - F NR\_NTN\_solutions-Core

R2-2208466 Correction for measurement gap Xiaomi draftCR Rel-17 38.331 17.1.0 NR\_NTN\_solutions-Core

##### 6.10.3.2.2 CHO

CHO related corrections

R2-2207672 Discussion on the ephemeris information in CHO procedure Spreadtrum Communications discussion Rel-17

R2-2208534 Correction of entering and leaving condition of CondEventT1 LG Electronics France CR Rel-17 38.331 17.1.0 3433 - F NR\_NTN\_solutions-Core

##### 6.10.3.2.3 Other

Contributions on any other RRC issues.

R2-2207053 Correction to RRC-MAC interaction on UL synchronisation in NTN OPPO CR Rel-17 38.331 17.1.0 3212 - F NR\_NTN\_solutions-Core

R2-2207063 Discussion on how to handle the validity timer for neighbor cells OPPO discussion Rel-17 NR\_NTN\_solutions-Core

R2-2207066 NTN RRC correction OPPO CR Rel-17 38.331 17.1.0 3214 - F NR\_NTN\_solutions-Core

R2-2207068 Correction on NTN UE capabiltiy OPPO CR Rel-17 38.306 17.1.0 0758 - F NR\_NTN\_solutions-Core

R2-2207141 Correction of UE location aspects in NTN Thales, Xiaomi discussion Rel-17 38.300 NR\_NTN\_solutions

R2-2207144 Correction of UE location aspects in NTN Thales, Xiaomi draftCR Rel-17 38.300 17.1.0 NR\_NTN\_solutions

R2-2207148 Remaining issues on ephemeris provision Huawei, HiSilicon, Thales discussion Rel-17 NR\_NTN\_solutions-Core

R2-2207268 Draft 331 CR for NR NTN measurement related UE capabilities Intel Corporation draftCR Rel-17 38.331 17.1.0 F NR\_NTN\_solutions-Core

R2-2207269 Draft 306 CR for NR NTN measurement related UE capabilities Intel Corporation draftCR Rel-17 38.306 17.1.0 F NR\_NTN\_solutions-Core

R2-2207270 Discussion on UE capability for 2 SMTC in parallel Intel Corporation discussion Rel-17 NR\_NTN\_solutions-Core

R2-2207324 Rel-17 NTN corrections to NR RRC Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.1.0 3247 - F NR\_NTN\_solutions-Core Late

R2-2207342 Same ULTSRP indication of the target cell during handover Qualcomm Incorporated CR Rel-17 38.331 17.1.0 3249 - F NR\_NTN\_solutions-Core

R2-2207343 List of frequencies and satellite index for a neighbor satellite in SIB19 Qualcomm Incorporated CR Rel-17 38.331 17.1.0 3250 - F NR\_NTN\_solutions-Core

R2-2207439 Clarification on the necessity of SIB19 in NTN cell Apple CR Rel-17 38.331 17.1.0 3263 - F NR\_NTN\_solutions-Core

R2-2207441 The impact on HO by the validity of the UL sync assistance info Apple discussion Rel-17 NR\_NTN\_solutions-Core

R2-2207442 Clarification on the features supported in NTN network Apple discussion Rel-17 NR\_NTN\_solutions-Core

R2-2207597 Discussion on the UE location reporting Huawei, HiSilicon discussion Rel-17 NR\_NTN\_solutions-Core

R2-2207630 Correction on access restriction for NR NTN in TS 38.331 vivo CR Rel-17 38.331 17.1.0 3299 - F NR\_NTN\_solutions-Core

R2-2207631 Remaining issues on validity timer in NR NTN vivo discussion

R2-2207769 Corrections to TA Report in RRC Connection Reestablishment Google Inc. CR Rel-17 38.331 17.1.0 3311 - F NR\_NTN\_solutions-Core

R2-2207777 Corrections to TA Report in RRC Connection Resume Google Inc. CR Rel-17 38.331 17.1.0 3313 - F NR\_NTN\_solutions-Core

R2-2207889 Discussion on whether the inactive state of RRC enables in specific scenarios for NTN BUPT discussion Rel-17

R2-2208288 Correction to coarseLocationInfo field description for NR NTN Eutelsat S.A. CR Rel-17 38.331 17.1.0 3399 - F NR\_NTN\_solutions-Core

R2-2208362 Discussion on validity timer for serving cell and neighbour cell ASUSTeK discussion Rel-16 38.331 NR\_NTN\_solutions-Core

R2-2208363 Discussion on T430 for handover ASUSTeK discussion Rel-16 38.331 NR\_NTN\_solutions-Core

R2-2208364 Discussion on configuration of harq-ProcessNumberSizeDCI-0-2 ASUSTeK discussion Rel-16 38.331 NR\_NTN\_solutions-Core

R2-2208378 Discussion on Neighbor Satellite Assistance Information CATT discussion Rel-17 NR\_NTN\_solutions-Core

R2-2208380 Miscellaneous corrections on 38.300 CATT CR Rel-17 38.300 17.1.0 0538 - F NR\_NTN\_solutions-Core

R2-2208381 Miscellaneous corrections on 38.331 CATT discussion Rel-17 NR\_NTN\_solutions-Core

R2-2208537 Corrections to NTN capabilities LG Electronics CR Rel-17 38.306 17.1.0 0794 - F NR\_NTN\_solutions-Core, NR\_redcap-Core

R2-2208538 Miscellaneous corrections for NTN LG Electronics CR Rel-17 38.331 17.1.0 3434 - F NR\_NTN\_solutions-Core

R2-2208575 correction on coarselocationrequest Xiaomi, Thales CR Rel-17 38.331 17.1.0 3444 - F NR\_NTN\_solutions-Core

R2-2208577 correction on triggering TA report during HO Xiaomi CR Rel-17 38.331 17.1.0 3445 - F NR\_NTN\_solutions-Core

R2-2208578 Correction on missing the action upon not being able to acquire SIB19 Xiaomi CR Rel-17 38.331 17.1.0 3446 - F NR\_NTN\_solutions-Core

R2-2208657 Issues related to NR NTN epoch time Sequans Communications discussion Rel-17 38.331 NR\_NTN\_solutions-Core

R2-2208659 NTN Configuration at Handover and CHO Sequans Communications discussion Rel-17 38.331 NR\_NTN\_solutions-Core

R2-2208679 R17 NR NTN UE Capability issues Ericsson discussion Rel-17

## 6.11 NR positioning enhancements

(NR\_pos\_enh-Core; leading WG: RAN1; REL-17; WID: RP-210903)

Tdoc Limitation: 6 tdocs

### 6.11.1 Organizational

Rapporteur input. Incoming LS etc. This AI is reserved for rapporteur and organizational inputs. For LSes that need action or have impact beyond taking into account by CR rapporteurs: One tdoc by contact company (one company) to address the LS and potential reply is considered Rapporteur Input and may be provided. Related documents and proposed responses from companies other than the contact company should be submitted to the corresponding technical agenda item.

R2-2206903 Response LS to RTCM SC134 on GNSS integrity (RTCM; contact: ESA) RTCM LS in Rel-17 NR\_pos\_enh-Core To:RAN2

R2-2206914 Reply LS on the UE/TRP TEG framework (R1-2205382; contact: CATT) RAN1 LS in Rel-17 NR\_pos\_enh-Core To:RAN4, RAN2, RAN3

R2-2206916 LS on updates of RRC parameters for Rel-17 positioning enhancements (R1-2205406; contact: CATT) RAN1 LS in Rel-17 NR\_pos\_enh-Core To:RAN2, RAN3 Cc:RAN4

R2-2206919 Reply LS on lower Rx beam sweeping factor for latency improvement (R1-2205450; contact: Huawei) RAN1 LS in Rel-17 NR\_pos\_enh To:RAN4 Cc:RAN2

R2-2206927 Reply LS on expected AoA and AoD parameters (R1-2205619; contact: Nokia) RAN1 LS in Rel-17 NR\_pos\_enh-Core To:RAN2 Cc:RAN3

R2-2206945 Further reply LS on condition for PRS measurement outside the MG (R4-2210601; contact: Huawei) RAN4 LS in Rel-17 NR\_pos\_enh-Core To:RAN1, RAN2

R2-2206946 LS on Tx TEG framework (R4-2210603; contact: CATT) RAN4 LS in Rel-17 NR\_pos\_enh-Core To:RAN1, RAN2, RAN3

R2-2206947 LS on switching time for SRS transmission outside initial UL BWP in RRC\_INACTIVE (R4-2210604; contact: Huawei) RAN4 LS in Rel-17 NR\_pos\_enh-Core To:RAN1, RAN2

R2-2207099 Corrections on the RxTEG,TxTEG and RxTxTEG report in TS 37.355 CATT CR Rel-17 37.355 17.1.0 0352 - F NR\_pos\_enh-Core

R2-2207100 Corrections on the UE TxTEG report in TS 38.331 CATT CR Rel-17 38.331 17.1.0 3217 - F NR\_pos\_enh-Core

R2-2207384 Mscellaneous corrections for TS38.305 Intel Corporation CR Rel-17 38.305 17.1.0 0105 - F NR\_pos\_enh-Core

R2-2207385 Corrections on LPP capabilies Intel Corporation CR Rel-17 37.355 17.1.0 0359 - F NR\_pos\_enh-Core

R2-2207880 Editor's Correction for MAC spec for Positioning Huawei, HiSilicon CR Rel-17 38.321 17.1.0 1344 - F NR\_pos\_enh-Core

### 6.11.2 Essential corrections

No documents should be submitted to 6.11.2. Please submit to 6.11.2.x.

R2-2208298 Discussion on positioning of UEs in FR2-2 Samsung discussion Rel-17 NR\_pos\_enh-Core

R2-2208299 Clarification on the use of SRS with 480 kHz, 960 kHz SCS in FR2-2 for positioning Samsung draftCR Rel-17 38.331 17.1.0 NR\_pos\_enh-Core, NR\_ext\_to\_71GHz

#### 6.11.2.1 Latency enhancements

Enhancements of signalling, and procedures for improving positioning latency of the Rel-16 NR positioning methods, for DL and DL+UL positioning methods.

R2-2207101 Corrections on the latency enhancements in TS 37.355 CATT CR Rel-17 37.355 17.1.0 0353 - F NR\_pos\_enh-Core

R2-2207110 Corrections on TS38.305 CATT CR Rel-17 38.305 17.1.0 0103 - F NR\_pos\_enh-Core

R2-2207411 Change request about PPW configuration vivo, Ericsson CR Rel-17 38.331 17.1.0 3260 - F NR\_pos\_enh-Core

R2-2207579 Correction on the request message of reduced PRS samples in 37.355 ZTE, Sanechips CR Rel-17 37.355 17.1.0 0362 - F NR\_pos\_enh-Core

R2-2207580 Correction on UE capability of reduced PRS samples in RRC\_INACTIVE in 37.355 ZTE, Sanechips CR Rel-17 37.355 17.1.0 0363 - F NR\_pos\_enh-Core

R2-2207693 Positioning during handover and re-establishment Lenovo discussion Rel-17

R2-2207885 Correction to the number of samples for PRS measurement in RRC\_INACTIVE Huawei, HiSilicon CR Rel-17 37.355 17.1.0 0371 - F NR\_pos\_enh-Core

R2-2207886 Cancellation of SR for posMG (de-)activation request Huawei, HiSilicon discussion Rel-17 NR\_pos\_enh-Core

R2-2208077 Correction of the IE for lower Rx beam sweeping factor than 8 for FR2 capability and request Ericsson CR Rel-17 37.355 17.1.0 0374 - F NR\_pos\_enh-Core

R2-2208124 Correction to missing Scheduling Request Configuration for Positioning Measurement Gap Activation/Deactivation Request MAC CE Qualcomm Incorporated CR Rel-17 38.331 17.1.0 3358 - F NR\_pos\_enh-Core

R2-2208125 Correction to Scheduling Request for Positioning Measurement Gap Activation/Deactivation Request Qualcomm Incorporated CR Rel-17 38.321 17.1.0 1371 - F NR\_pos\_enh-Core

R2-2208204 Miscellaneous corrections to NR positioning enhancements Lenovo draftCR Rel-17 38.321 17.1.0 F NR\_pos\_enh-Core

R2-2208300 Cancellation of UL MAC CE for MG activation/deactivation Samsung draftCR Rel-17 38.331 17.1.0 NR\_pos\_enh-Core

R2-2208491 Change request about validity area in 38.305 vivo draftCR Rel-17 38.305 17.1.0 D NR\_pos\_enh-Core

R2-2208492 Change request about UE capability for PRS measurement within a PPW vivo draftCR Rel-17 37.355 17.1.0 F NR\_pos\_enh-Core

R2-2208512 Corrections for triggered Positioning MG Req MAC CE Samsung draftCR Rel-17 38.321 17.1.0 F NR\_pos\_enh-Core

#### 6.11.2.2 RRC\_INACTIVE

Methods, measurements, signalling and procedures to support positioning for UEs in RRC\_ INACTIVE state, for UE-based and UE-assisted positioning solutions. UL and DL+UL NR positioning methods and gNB positioning measurements for UEs in RRC\_INACTIVE are treated at lower priority.

R2-2207112 Discussion on left over issues of UL positioning in RRC\_Inactive CATT discussion Rel-17 NR\_pos\_enh-Core

R2-2207881 Correction for inactivePosSRS-TAT upon transitioning to RRC\_CONNECTED Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3322 - F NR\_pos\_enh-Core

R2-2207883 Correction to TA-validation for inactive SRS transmission Huawei, HiSilicon CR Rel-17 38.321 17.1.0 1345 - F NR\_pos\_enh-Core

R2-2208072 On transferring SDT configuration and SRS positioning Inactive configuration from DU to CU Ericsson discussion Rel-17

R2-2208074 on RRC Inactive Mode Positioning Ericsson discussion Rel-17

R2-2208076 Miscellaneous correction for Positioning Ericsson, Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.1.0 3353 - F NR\_pos\_enh-Core

R2-2208521 Corrections on activation and deactivation of SP-SRSp transmission in RRC INACTIVE Xiaomi, Huawei, vivo CR Rel-17 38.305 17.1.0 0107 - F NR\_pos\_enh-Core

#### 6.11.2.3 On-demand PRS

Specify UE-initiated and LMF-initiated on-demand transmission and reception of DL PRS for DL and DL+UL positioning for UE-based and UE-assisted positioning solutions.

R2-2207012 Corrections for DL-PRS processing window activation Samsung Electronics Co., Ltd draftCR Rel-17 38.321 17.1.0 NR\_pos\_enh-Core

R2-2207419 Change request about QCL-Info in the on-demand PRS request vivo CR Rel-17 37.355 17.1.0 0360 - F NR\_pos\_enh-Core

R2-2208493 Discussion on the format of on-demand PRS configuration vivo, ZTE, Ericsson, Huawei, Xiaomi discussion Rel-17 NR\_pos\_enh-Core

#### 6.11.2.4 GNSS positioning integrity

Signalling and procedures to support GNSS positioning integrity determination.

R2-2207363 Corrections on the integrity of A-GNSS in TS 37.355 CATT CR Rel-18 37.355 17.1.0 0358 - F NR\_pos\_enh-Core Withdrawn

R2-2207736 Corrections on the integrity of A-GNSS in TS 37.355 CATT CR Rel-17 37.355 17.1.0 0365 - F NR\_pos\_enh-Core

R2-2208075 Provisioning of missing integrity requirements Ericsson discussion Rel-17

R2-2208395 Correction on the GNSS Orbit and Clock Integrity Bounds in TS 37.355 Swift Navigation, ESA, Ericsson CR Rel-17 37.355 17.1.0 0377 - F NR\_pos\_enh-Core

R2-2208415 Correction on the mean orbit error projection in TS 38.305 Swift Navigation, ESA, Ericsson CR Rel-17 38.305 17.1.0 0106 - F NR\_pos\_enh-Core

R2-2208419 Correction on the mean orbit error projection in TS 36.305 Swift Navigation, ESA, Ericsson CR Rel-17 36.305 17.1.0 0110 - F NR\_pos\_enh-Core

#### 6.11.2.5 A-GNSS enhancements

Including support of BDS B2a and B3I signals and support of NavIC.

#### 6.11.2.6 Accuracy enhancements

Input on the accuracy enhancement objectives led by RAN1.

R2-2207087 37.355 CR for clarification of number of UE Rx TEGs OPPO CR Rel-17 37.355 17.1.0 0350 - F NR\_pos\_enh-Core

R2-2207088 37.355 CR for introduction of UE Rx TEG error margin and Tx TEG error margin OPPO CR Rel-17 37.355 17.1.0 0351 - F NR\_pos\_enh-Core

R2-2207102 Corrections on the accuracy enhancements in TS 37.355 CATT CR Rel-17 37.355 17.1.0 0354 - F NR\_pos\_enh-Core

R2-2207578 Correction on additional measurements in 37.355 ZTE, Sanechips CR Rel-17 37.355 17.1.0 0361 - F NR\_pos\_enh-Core

R2-2207581 Correction on UE Rx Tx RxTx TEG and TRP Tx TEG timing error margin in 37.355 ZTE, Sanechips CR Rel-17 37.355 17.1.0 0364 - B NR\_pos\_enh-Core

R2-2207582 Correction on UE Tx TEG timing error margin in 38.331 ZTE, Sanechips CR Rel-17 38.331 17.1.0 3286 - B NR\_pos\_enh-Core

R2-2207583 Discussion on the framework of TEG timing error margin ZTE, Sanechips discussion Rel-17 NR\_pos\_enh-Core

R2-2207882 Correction to measurment with mutliple TEGs Huawei, HiSilicon, VIVO CR Rel-17 37.355 17.1.0 0369 - F NR\_pos\_enh-Core

R2-2207884 Correction to DL-AoD measurement report Huawei, HiSilicon CR Rel-17 37.355 17.1.0 0370 - F NR\_pos\_enh-Core

R2-2208073 On Mitigation of UE/TRP Rx/Tx timing delays Ericsson discussion Rel-17

R2-2208494 Change request about description of RSPP and RSRPP in 38.305 vivo draftCR Rel-17 38.305 17.1.0 D NR\_pos\_enh-Core

## 6.12 Reduced Capability

(NR\_redcap-Core; leading WG: RAN1; REL-17; WID: RP-211574)

Tdoc Limitation: 4 tdocs

### 6.12.1 Organizational

LSs, rapporteur inputs and other organizational documents. Rapporteur inputs and other pre-assigned documents in this AI do not count towards the tdoc limitation.

#### 6.12.1.1 LS in

For LSes that need action: one tdoc by contact company to address the LS and potential reply is considered.

Rapporteur input may be provided.

R2-2206924 Reply LS on introduction of an offset to transmit CD-SSB and NCD-SSB at different times (R1-2205535; contact: Ericsson) RAN1 LS in Rel-17 NR\_redcap-Core To:RAN2 Cc:RAN4

R2-2206941 LS on CGI reading with autonomous gaps for RedCap (R4-2210593; contact: Ericsson) RAN4 LS in Rel-17 NR\_redcap-Core To:RAN2

R2-2206942 LS on measurement capability for RedCap (R4-2210594; contact: CMCC) RAN4 LS in Rel-17 NR\_redcap-Core To:RAN2 Cc:RAN1

R2-2206943 Reply LS on RRM relaxation for Redcap (R4-2210598; contact: vivo) RAN4 LS in Rel-17 NR\_redcap-Core To:RAN2

R2-2206944 Reply LS on introduction of an offset to transmit CD-SSB and NCD-SSB at different times (R4-2210599; contact: Ericsson) RAN4 LS in Rel-17 NR\_redcap-Core To:RAN2 Cc:RAN1

#### 6.12.1.2 Rapporteur inputs

CR Rapporteurs may provide baseline correction CRs containing smaller corrections, text clarifications, etc - please contact the CR rapporteurs before providing contributions on those aspects.

R2-2207746 Miscellaneous CR on TS 38.321 for RedCap vivo CR Rel-17 38.321 17.1.0 1336 - F NR\_redcap-Core

R2-2208219 Corrections on RedCap in TS 38.300 Nokia, Nokia Shanghai Bell, Huawei CR Rel-17 38.300 17.1.0 0535 - F NR\_redcap-Core

R2-2208306 Miscellaneous corrections for RedCap WI Ericsson CR Rel-17 38.331 17.1.0 3400 - F NR\_redcap-Core

R2-2208307 Miscellaneous corrections for RedCap WI Ericsson CR Rel-17 38.304 17.1.0 0276 - F NR\_redcap-Core

### 6.12.2 Control Plane

#### 6.12.2.1 NCD-SSB aspects

Corrections/clarifications on NCD-SSB aspects

R2-2207041 Clarification on reference SSB for intra- and inter-frequency measurements for RedCap UEs Qualcomm Incorporated CR Rel-17 38.300 17.1.0 0508 - F NR\_redcap-Core

R2-2207464 CR on handling time domain offset of CD and NCD-SSB Apple CR Rel-17 38.331 17.1.0 3267 - F NR\_redcap-Core

R2-2207465 CR on handling time domain offset of CD and NCD-SSB Apple CR Rel-17 38.306 17.1.0 0768 - F NR\_redcap-Core

R2-2207619 Remaining issues on NCD-SSB for RedCap Huawei, HiSilicon discussion Rel-17 NR\_redcap-Core

R2-2207748 Correction on RRC for RedCap vivo, Guangdong Genius CR Rel-17 38.331 17.1.0 3307 - F NR\_redcap-Core

R2-2207995 Clarification of BWP operation in Connected mode MediaTek Inc. discussion Rel-17 NR\_redcap-Core

R2-2208111 Correction on RedCap-specific initial BWP ZTE Corporation, Sanechips CR Rel-17 38.300 17.1.0 0529 - F NR\_redcap-Core

R2-2208136 Correction to definition and values of ssb-TimeOffset for NCD-SSB Qualcomm Incorporated CR Rel-17 38.331 17.1.0 3360 - F NR\_redcap-Core

R2-2208308 Clarification on the field description of rach-ConfigCommonfor for RedCap UEs Ericsson CR Rel-17 38.331 17.1.0 3401 - F NR\_redcap-Core

R2-2208311 Introducing capability bit for RedCap UEs to indicate NCD-SSB support Ericsson discussion Rel-17 NR\_redcap-Core Late

R2-2208383 Correction on description of SSB based intra-frequency measurement for RedCap UE CATT CR Rel-17 38.300 17.1.0 0539 - F NR\_redcap-Core

R2-2208398 CR for RACH operation during SI update when the active BWP contains no CD-SSB LG Electronics Inc. CR Rel-17 38.331 17.1.0 3414 - F NR\_redcap-Core

#### 6.12.2.2 Other RRC corrections

Contributions on any other RRC issues.

R2-2207054 Clarification on support of eDRX OPPO CR Rel-17 38.331 17.1.0 3213 - F NR\_redcap-Core

R2-2207055 Clarification on UE support of eDRX OPPO CR Rel-17 38.306 17.1.0 0757 - F NR\_redcap-Core

R2-2207069 Discussion on inter-RAT mobility from LTE to NR OPPO discussion Rel-17 NR\_redcap-Core

R2-2207209 38.331 Corrections on PDCCH-ConfigCommon for Redcap Xiaomi Communications draftCR Rel-17 38.331 17.1.0 NR\_redcap-Core

R2-2207230 Correction on inter-RAT handover from E-UTRA to NR for RedCap Sequans Communications, Huawei, HiSilicon CR Rel-17 38.300 17.1.0 0505 - F NR\_redcap-Core

R2-2207386 Alignment on the support of 2TX and 2UL MIMO for RedCap UEs Intel Corporation, Huawei discussion Rel-17 NR\_redcap-Core

R2-2207620 Corrections on PDCCH-ConfigCommon for RedCap initial BWP Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3297 - F NR\_redcap-Core

R2-2207621 Corrections on the relaxed measurement criterion and smtc field for RedCap Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3298 - F NR\_redcap-Core

R2-2207747 Discussion on NCD SSB for RedCap UEs vivo, Guangdong Genius discussion Rel-17 NR\_redcap-Core

R2-2207749 Correction on capability for RedCap vivo, Guangdong Genius CR Rel-17 38.306 17.1.0 0777 - F NR\_redcap-Core Late

R2-2207751 Correction on TS 38.300 for RedCap vivo CR Rel-17 38.300 17.1.0 0517 - F NR\_redcap-Core

R2-2207996 Inter-RAT handover from LTE to NR MediaTek Inc. discussion Rel-17 NR\_redcap-Core

R2-2208155 Correction on UERadioPagingInformation and UERadioPagingInfo container Ericsson CR Rel-17 38.331 17.1.0 3364 - F NR\_newRAT-Core, NR\_redcap-Core Withdrawn

R2-2208309 Clarification on the field description of commonControlResourceSet for RedCap UEs Ericsson CR Rel-17 38.331 17.1.0 3402 - F NR\_redcap-Core

R2-2208310 Paging configuration for RedCap UEs in the initial DL BWP Ericsson discussion Rel-17 NR\_redcap-Core Late

R2-2208385 Corrections on RedCap specific initial DL BWP related description CATT CR Rel-17 38.331 17.1.0 3413 - F NR\_redcap-Core

R2-2208386 Discussion and TP on the SI request on SUL for RedCap CATT discussion Rel-17 NR\_redcap-Core

R2-2208438 Remaining aspect on RedCap initial DL BWP CMCC discussion Rel-17 NR\_redcap-Core

R2-2208439 Corrections on RedCap initial DL BWP CMCC CR Rel-17 38.331 17.1.0 3420 - F NR\_redcap-Core

R2-2208631 Correction on eDRX allowed indication and PDCCH-ConfigCommon ZTE Corporation, Sanechips CR Rel-17 38.331 17.1.0 3456 - F NR\_redcap-Core

R2-2208632 Correction on eDRX allowed indication and BFD ZTE Corporation, Sanechips CR Rel-17 38.300 17.1.0 0544 - F NR\_redcap-Core

#### 6.12.2.3 Idle inactive mode corrections

Contributions on 38.304 issues

R2-2207007 Correction to description of first-PDCCH-MonitoringOccasionOfPO Samsung Electronics Co., Ltd draftCR Rel-17 38.304 17.1.0 NR\_redcap-Core

R2-2207207 38.304 Correction on the e-DRX for Redcap Xiaomi Communications draftCR Rel-17 38.304 17.1.0 NR\_redcap-Core

R2-2207622 Corrections on the intra-FreqReselection and eDRX supporting for RedCap Huawei, HiSilicon CR Rel-17 38.304 17.1.0 0265 - F NR\_redcap-Core

R2-2207750 Discussion on cellBar for RedCap vivo, Guangdong Genius discussion Rel-17 NR\_redcap-Core

R2-2208112 Miscellaneous correction on eDRX ZTE Corporation, Sanechips CR Rel-17 38.304 17.1.0 0271 - F NR\_redcap-Core

R2-2208221 Correction on eDRX-Allowed indication Nokia, Nokia Shanghai Bell CR Rel-17 38.304 17.1.0 0274 - F NR\_redcap-Core

### 6.12.3 User Plane

#### 6.12.3.1 MAC aspects

R2-2207008 BWP Switching upon SI request ack Samsung Electronics Co., Ltd draftCR Rel-17 38.321 17.1.0 NR\_redcap-Core

R2-2207009 BWP Switching in RRC\_IDLE\_RRC\_INACTIVE\_upon RA initiation Samsung Electronics Co., Ltd draftCR Rel-17 38.321 17.1.0 NR\_redcap-Core

R2-2207010 Corrections to BWP inactivity timer (re)start criteria upon reception of PDCCH for BWP switching Samsung Electronics Co., Ltd draftCR Rel-17 38.321 17.1.0 NR\_redcap-Core

R2-2207208 38.321 Correction on the BWP operations for Redcap Xiaomi Communications draftCR Rel-17 38.321 17.1.0 NR\_redcap-Core

R2-2207903 RedCap support for sending BFR MAC CE for SpCell BFR Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_redcap-Core

R2-2207904 Correction on RedCap support for sending BFR MAC CE for SpCell BFR Nokia, Nokia Shanghai Bell CR Rel-17 38.306 17.1.0 0782 - F NR\_redcap-Core

R2-2208384 Correction on dormantBWP for RedCap in TS 38.321 CATT CR Rel-17 38.321 17.1.0 1385 - F NR\_redcap-Core

## 6.13 SON MDT

(NR\_ENDC\_SON\_MDT\_enh-Core; leading WG: RAN3; REL-17; WID: RP-201281)

Tdoc Limitation: 4 tdocs

WI is declared 100% complete

### 6.13.1 Organizational and Stage-2

LS in etc. CR Rapporteurs to provide input CRs, and Provide resolution proposals for smaller and editorial corrections. For Editorial corrections please discuss with CR Rapporteur. Stage-2 corrections and system level discussions, if needed

R2-2206934 LS on M6 Delay Threshold (R3-224079; contact: CATT) RAN3 LS in Rel-17 NR\_ENDC\_SON\_MDT\_enh To:SA5 Cc:RAN2

R2-2206979 LS on Reply LS on beam measurement reports (S5-223524; contact: Ericsson) SA5 LS in Rel-17 NR\_ENDC\_SON\_MDT\_enh To:RAN3, RAN2

R2-2207472 Addition of SON Features Enhancement in Stage 2 CATT CR Rel-17 38.300 17.1.0 0511 - F NR\_ENDC\_SON\_MDT\_enh-Core

R2-2208234 Correction to Logged MDT type handling Nokia, Nokia Shanghai Bell CR Rel-17 37.320 17.1.0 0120 - F NR\_ENDC\_SON\_MDT\_enh-Core

R2-2208539 CR to 38300 on SHR and RACH optimization ZTE Corporation, Sanechips CR Rel-17 38.300 17.1.0 0541 - F NR\_ENDC\_SON\_MDT\_enh-Core

### 6.13.3 SON Corrections

R2-2207156 Correction on RACH Optimization for 2-step RA vivo CR Rel-17 38.300 17.1.0 0499 - F NR\_ENDC\_SON\_MDT\_enh-Core

R2-2207473 [C321] Correction on SHR Configuration Release CATT CR Rel-17 38.331 17.1.0 3268 - F NR\_ENDC\_SON\_MDT\_enh-Core

R2-2207474 [C315] [C328] Clarification on Neighbour Cell Measurement CATT CR Rel-17 38.331 17.1.0 3269 - F NR\_ENDC\_SON\_MDT\_enh-Core

R2-2207945 Discussion on logging of PSCell information in MHI Huawei, HiSilicon discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2207946 Introduction of SHR in TS 38.300 Huawei, HiSilicon CR Rel-17 38.300 17.1.0 0520 - F NR\_ENDC\_SON\_MDT\_enh-Core

R2-2207947 Corrections to TS 38.331 on SON and MDT Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3332 - F NR\_ENDC\_SON\_MDT\_enh-Core

R2-2208166 Correction to time with no PSCell in mobility history information reporting Ericsson CR Rel-17 38.331 17.1.0 3366 - F NR\_ENDC\_SON\_MDT\_enh-Core

R2-2208167 PSCell information storing in Mobility History Information [E120, E121, E122] Ericsson, Qualcomm, CMCC, CATT CR Rel-17 38.331 17.1.0 3367 - F NR\_ENDC\_SON\_MDT\_enh-Core

R2-2208168 Corrections to the RLF-Report for the case of RLF in the CHO recovery cell Ericsson discussion NR\_ENDC\_SON\_MDT\_enh-Core

R2-2208235 Avoidance of too premature successHO-Config release Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.1.0 3384 - F NR\_ENDC\_SON\_MDT\_enh-Core

R2-2208236 Correction on MHI setting upon UEInformationRequest Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.1.0 3385 - F NR\_ENDC\_SON\_MDT\_enh-Core

### 6.13.4 MDT Corrections

R2-2207475 Corrections on MDT Aspect CATT CR Rel-17 38.331 17.1.0 3270 - F NR\_ENDC\_SON\_MDT\_enh-Core

R2-2207948 Discussion on capturing L2M agreements in TS 38.314 Huawei, HiSilicon discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

R2-2208165 Total RAN Delay calculation Ericsson CR Rel-17 38.331 17.1.0 3365 - F NR\_ENDC\_SON\_MDT\_enh-Core Withdrawn

R2-2208206 Total RAN Delay calculation Ericsson CR Rel-17 38.314 17.1.0 0024 - F NR\_ENDC\_SON\_MDT\_enh-Core

R2-2208237 Correction on IDC logging Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.1.0 3386 - F NR\_ENDC\_SON\_MDT\_enh-Core

R2-2208540 CR to 38331 on multiple CEF report ZTE Corporation, Sanechips CR Rel-17 38.331 17.1.0 3435 - F NR\_ENDC\_SON\_MDT\_enh-Core

R2-2208541 Remianing issues on multiple CEF report ZTE Corporation, Sanechips discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

## 6.14 NR QoE

(NR\_QoE-Core; leading WG: RAN3; REL-17; WID: RP-211406)

Tdoc Limitation: 2 tdocs

### 6.14.1 Organizational

Including incoming LSs, rapporteur inputs, etc.

Rapporteurs may provide baseline correction CRs containing smaller corrections, text clarifications etc - please contact the Rapporteur before providing contributions on those aspects.

R2-2206906 Reply LS on UE capabilities for NR QoE (C1-224008; contact: Apple) CT1 LS in Rel-17 NR\_QoE-Core To:RAN2 Cc:SA4

R2-2206908 Reply LS on NR QoE (C1-224182; contact: Huawei) CT1 LS in Rel-17 NR\_QoE-Core To:RAN2 Cc:SA4, RAN3, SA5

R2-2206978 LS Reply on QoE configuration and reporting related issues (S5-223518; contact: Ericsson) SA5 LS in Rel-17 eQoE To:SA4, RAN3 Cc:RAN2

R2-2208627 38.300 CR Correction for Introduction of QoE measurements in NR China Unicom, Huawei, HiSilicon CR Rel-17 38.300 17.1.0 0543 - F NR\_QoE-Core

### 6.14.2 Corrections

Including essential corrections to QoE measurements.

R2-2207425 Clarification of CAPC for SRB4 Apple CR Rel-17 38.331 17.1.0 3261 - F NR\_QoE-Core

R2-2207426 Clarification of QoE Reporting with Session Start/Stop Information Apple CR Rel-17 38.331 17.1.0 3262 - F NR\_QoE-Core

R2-2207530 Discussion on application layer measurement reporting procedure and AT commands for NR QoE Lenovo discussion Rel-17 NR\_QoE-Core

R2-2207531 Corrections to application layer measurement reporting procedure Lenovo draftCR Rel-17 38.331 17.1.0 F NR\_QoE-Core Late

R2-2207722 Correction CR for QoE measurements Ericsson, Huawei CR Rel-17 38.331 17.1.0 3303 - F NR\_QoE-Core

R2-2207723 Correction CR for QoE measurements Ericsson CR Rel-17 38.300 17.1.0 0514 - F NR\_QoE-Core

R2-2207734 Correction on QoE configuration and reporting Qualcomm Incorporated CR Rel-17 38.331 17.1.0 3305 - F NR\_QoE-Core

R2-2207821 Correction on TS 38.331 for QoE CATT CR Rel-17 38.331 17.1.0 3318 - F NR\_QoE-Core

R2-2207949 Correction to the application layer measurement configuration Huawei, HiSilicon CR Rel-17 38.300 17.1.0 0521 - F NR\_QoE-Core

R2-2207950 Correction to the transmission of appLayerSessionStatus when pause is enabled Huawei, HiSilicon, China Unicom CR Rel-17 38.331 17.1.0 3333 - F NR\_QoE-Core

R2-2208238 Correction to storage of application layer measurements during Pause Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.1.0 3387 - F NR\_QoE-Core

R2-2208239 Correction to paused reporting of the application layer measurements Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.1.0 3388 - F NR\_QoE-Core

R2-2208393 Correction on MeasurementReportAppLayer message per measConfigAppLayerId Samsung draftCR Rel-17 38.331 17.1.0 F NR\_QoE-Core

R2-2208394 Correction on QoE report only including measConfigAppLayerId Samsung draftCR Rel-17 38.331 17.1.0 F NR\_QoE-Core

R2-2208479 Correction on MeasurementReportAppLayer retransmission Google Inc. CR Rel-17 38.331 17.1.0 3426 - F NR\_QoE-Core

R2-2208547 CR to 38300 on RRC segmentation ZTE Corporation, Sanechips, China Unicom CR Rel-17 38.300 17.1.0 0542 - F NR\_QoE-Core

### 6.14.3 UE capabilities

Corrections to features / UE caps developed in RAN2. Note that this AI is complementary to AI 6.0.2. Please use draft CRs for 38.331 and 38.306 to help with CR merging.

## 6.15 NR Sidelink enhancements

(NR\_SL\_enh-Core; leading WG: RAN1; REL-17; WID: RP-202846)

Tdoc Limitation: 4 tdocs

Note some agenda item(s) may use pre-meeting discussion based on a summary document.

### 6.15.1 Organizational

Including incoming LSs, rapporteur inputs, etc.

R2-2206915 Reply LS on the inter-UE coordination mechanism (R1-2205400; contact: vivo) RAN1 LS in Rel-17 NR\_SL\_enh-Core To:RAN2

R2-2208598 Discussion and draft Reply LS to RAN1 on priority for IUC information vivo discussion Rel-17

### 6.15.2 Stage 2 corrections

R2-2207175 Correction on TX profile Xiaomi CR Rel-17 38.300 17.1.0 0501 - F NR\_SL\_enh-Core

R2-2207216 Discussion on SL DRX remaining issues ZTE Corporation, Sanechips discussion Rel-17 NR\_SL\_enh-Core

R2-2208183 Open issue on SL-DRX Intel Corporation discussion Rel-17 NR\_SL\_enh-Core

R2-2208220 Sidelink enhancement stage 2 corrections Nokia, Nokia Shanghai Bell draftCR Rel-17 38.300 17.1.0 NR\_SL\_enh-Core

R2-2208222 Further considerations on sidelink IUC scheme 2 Nokia, Nokia Shanghai Bell discussion NR\_SL\_enh-Core

R2-2208257 Correction on SL DRX for SL discovery Samsung CR Rel-17 38.300 17.1.0 0537 - F NR\_SL\_enh-Core

R2-2208605 Down selection of SR configuration for SL DRX MAC Command CE Nokia, Nokia Shanghai Bell discussion NR\_SL\_enh-Core

### 6.15.3 Control plane corrections

R2-2207016 Correction for SL DRX OPPO CR Rel-17 38.331 17.1.0 3206 - F NR\_SL\_enh-Core

R2-2207017 Discussion on left issues on control plane procedure OPPO discussion Rel-17 NR\_SL\_enh-Core

R2-2207172 Removal of three priority parameters in SL-InterUE-CoordinationConfig NEC Corporation discussion Rel-17

R2-2207213 Corrections on RRC for SL enhancements ZTE Corporation, Sanechips CR Rel-17 38.331 17.1.0 3233 - F NR\_SL\_enh-Core

R2-2207251 Corrections of 38.331 on RRCReconfigurationCompleteSidelink Ericsson draftCR Rel-17 38.331 17.1.0 F NR\_SL\_enh-Core Withdrawn

R2-2207281 Error handling on PC5 MediaTek Inc. discussion Rel-17

R2-2207456 Discussion on missing RRC parameter in IUC Scheme 2 Apple discussion Rel-17 NR\_SL\_enh-Core

R2-2207523 Corrections on the reception of RRCReconfigurationSidelink message CATT CR Rel-17 38.331 17.1.0 3274 - F NR\_SL\_enh-Core

R2-2207524 Corrections on the transmission of SidelinkUEInformationNR message CATT CR Rel-17 38.331 17.1.0 3275 - F NR\_SL\_enh-Core

R2-2207587 Corrections of 38.331 on RRCReconfigurationCompleteSidelink Ericsson CR Rel-17 38.331 17.1.0 3288 - F NR\_SL\_enh-Core

R2-2207668 On corrections to transmission procedures using exceptional pool for NR SL communication and NR SL discovery vivo discussion

R2-2207669 On power-saving resource allocation for NR SL communication transmission and NR SL discovery transmission vivo discussion

R2-2207760 Miscellaneous corrections on TS 38.331 for NR sidelink Xiaomi CR Rel-17 38.331 17.1.0 3308 - F NR\_SL\_enh-Core

R2-2207970 Open issues for IUC Intel Corporation discussion Rel-17 NR\_SL\_enh-Core

R2-2208053 Miscellaneous corrections on TS 38.331 for SL enhancements Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3348 - F NR\_SL\_enh-Core

R2-2208284 Clarification of NULL security algorithm Samsung Electronics Co., Ltd CR Rel-17 38.331 17.1.0 3397 - A 5G\_V2X\_NRSL-Core

R2-2208287 Clarification of NULL security algorithm Samsung Electronics Co., Ltd CR Rel-16 38.331 16.9.0 3398 - F 5G\_V2X\_NRSL-Core

### 6.15.4 User plane corrections

R2-2206984 Correction on IUC for resource re-selection in re-evaluation and pre-emption SHARP Corporation CR Rel-17 38.321 17.1.0 1304 - F NR\_SL\_enh-Core

R2-2206985 Correction on resource re-selection for non-preferred resource set SHARP Corporation CR Rel-17 38.321 17.1.0 1305 - F NR\_SL\_enh-Core

R2-2207029 Discussion on left issues on user plane procedure OPPO discussion Rel-17 NR\_SL\_enh-Core

R2-2207030 Correction on user plane aspects OPPO CR Rel-17 38.321 17.1.0 1306 - F NR\_SL\_enh-Core

R2-2207174 Discussion on retransmission issue Xiaomi discussion

R2-2207183 Correction on SL grant selection procedure NEC Corporation CR Rel-17 38.321 17.1.0 1307 - F NR\_SL\_enh-Core

R2-2207214 Correction on MAC for SL enhancement ZTE Corporation, Sanechips CR Rel-17 38.321 17.1.0 1309 - F NR\_SL\_enh-Core

R2-2207215 Discussion on inter-UE coordination ZTE Corporation, Sanechips discussion Rel-17 NR\_SL\_enh-Core

R2-2207248 Impact of IUC inofmation on LCP Ericsson discussion Rel-17 NR\_SL\_enh-Core

R2-2207249 Configuration aspects of SL DRX Ericsson discussion Rel-17 NR\_SL\_enh-Core

R2-2207250 Remaing issues on power saving resource allocation Ericsson discussion Rel-17 NR\_SL\_enh-Core

R2-2207454 Correction on TX Pool Selection for Inter-UE Coordination Apple CR Rel-17 38.321 17.1.0 1319 - F NR\_SL\_enh-Core

R2-2207455 Clarification on destination selection for Inter-UE Coordination Apple CR Rel-17 38.321 17.1.0 1320 - F NR\_SL\_enh-Core

R2-2207525 UP Leftover Issues on SL DRX CATT discussion Rel-17 NR\_SL\_enh-Core

R2-2207526 Open Issues of Inter-UE Coordination CATT discussion Rel-17 NR\_SL\_enh-Core

R2-2207759 Miscellaneous corrections on TS 38.321 for NR sidelink Xiaomi CR Rel-17 38.321 17.1.0 1337 - F NR\_SL\_enh-Core

R2-2207850 Correction for Sidelink DRX Sharp discussion Rel-17 NR\_SL\_enh-Core

R2-2207851 Correction for Sidelink DRX Sharp CR Rel-17 38.321 17.1.0 1354 - F NR\_SL\_enh-Core

R2-2207887 Correction on SL DRX behaviour for unicast link establishment Lenovo CR Rel-17 38.321 17.1.0 1346 - F NR\_SL\_enh-Core

R2-2207890 LCP impacts for SL inter-UE coordination Lenovo discussion Rel-17 NR\_SL\_enh-Core

R2-2208054 Correction on inter-UE coordination Huawei, HiSilicon CR Rel-17 38.321 17.1.0 1366 - F NR\_SL\_enh-Core

R2-2208055 Clarification on Uu DRX for SL communication Huawei, HiSilicon discussion Rel-17 NR\_SL\_enh-Core

R2-2208056 Consideration on active time during unicast connection establishment Huawei, HiSilicon CR Rel-17 38.321 17.1.0 1367 - F NR\_SL\_enh-Core

R2-2208057 Correction on sl-drx-inactivityTimer and LCP for discovery Huawei, HiSilicon CR Rel-17 38.321 17.1.0 1368 - F NR\_SL\_enh-Core

R2-2208148 HARQ RTT for pools without PSFCH InterDigital discussion Rel-17 NR\_SL\_enh-Core

R2-2208149 SR Configuration for SL DRX Command InterDigital discussion Rel-17 NR\_SL\_enh-Core

R2-2208150 UL/SL Prioritization for SL Relay InterDigital discussion Rel-17 NR\_SL\_enh-Core

R2-2208258 Correction on SL grant (re)selection based on sl-interUE-CoordinationSchemeN Samsung CR Rel-17 38.321 17.1.0 1374 - F NR\_SL\_enh-Core

R2-2208365 Correction on DRX timers for SL ASUSTeK CR Rel-17 38.321 17.1.0 1382 - F NR\_SL\_enh-Core

R2-2208513 Correction to inter-UE coordination information triggered by a condition Qualcomm India Pvt Ltd CR Rel-17 38.321 17.1.0 1387 - B NR\_SL\_enh-Core

R2-2208549 Corrections on SL DRX operation ASUSTEK COMPUTER (SHANGHAI) CR Rel-17 38.321 17.1.0 1390 - F NR\_SL\_enh-Core

R2-2208599 Correction on UE behavior in LCP considering PSFCH reception capability vivo CR Rel-17 38.321 17.1.0 1394 - F NR\_SL\_enh-Core

R2-2208602 Remaining issues for Inter-UE coordination procedure vivo discussion Rel-17

## 6.16 NR Non-Public Network enhancements

(WI NG\_RAN\_PRN\_enh-Core; leading WG: RAN3; REL-17; WID: RP-202363)

Tdoc Limitation: 1

* [AT119-e][027][NPN] NPN corrections (ZTE)

 Scope: Treat R2-2207163, R2-2207501, R2-2208624. Determine agreeable parts. For agreeable parts, agree CRs

 Intended outcome: Report, Agreed CRs

 Deadline: Schedule 1

R2-2207163 CR on the ims-EmergencySupport for the SNPN and PLMN RAN sharing scenario ZTE Corporation, Sanechips CR Rel-17 38.331 17.1.0 3224 - F NG\_RAN\_PRN\_enh-Core

* [027] not pursued

R2-2207501 Correction to 38.300 on GIN Huawei, HiSilicon CR Rel-17 38.300 17.1.0 0512 - F NG\_RAN\_PRN\_enh-Core

* [027] Merged with TS Rapporteur CR, see disc [035]

R2-2208624 Changing the gins-PerSNPN-List Need Code Ericsson discussion Rel-17 NG\_RAN\_PRN\_enh-Core

* [027] not pursued

## 6.17 NR feMIMO

(NR\_feMIMO-Core; leading WG: RAN1; REL-17; WID: RP-212535)

Tdoc Limitation: 2 tdocs

* [Post119-e][001][feMIMO] MAC CR (Samsung)

 Scope: Capture meeting progress in a MAC CR

 Intended outcome: Agreed CR

 Deadline: Short

* [Post119-e][002][feMIMO] RRC CR (Ericsson)

 Scope: Capture meeting progress in a Ericsson CR

 Intended outcome: Agreed CR

 Deadline: Short

### 6.17.1 Organizational

LS in, CR Rapporteurs to provide baseline correction CRs. For smaller corrections, text clarifications etc please contact CR Rapporteur

R2-2206926 LS on RAN1#109-e agreements with RAN2 impact (R1-2205591; contact: Samsung) RAN1 LS in Rel-17 NR\_FeMIMO-Core To:RAN2

* noted

### 6.17.2 RRC centric Corrections

R2-2208906 [Pre119-e][002][feMIMO] RRC centric summary (Ericsson) Ericsson discussion Rel-17 NR\_FeMIMO-Core

DISCUSSION

* LG think P10 is the UL version of P7
* Ericsson think R1 is discussing the relation between additional PCI and cell id for QCL. (P8 P7)
* P8: Nokia would be ok to send LS. Intel agrees that we should send LS. LG agrees.

P2

* Oppo think the R1 mapping solution is different, think R1 TS is more stable.
* Intel think there is a R1 CR to align with R2 TS.
* Chair: If it seems R1 will change, then we wait for R1 progress.
* The following proposals are agreed, details can be reviewed based on the CR.

1 RAN2 to agree to adopt Change 1 and 2 from R2-2207127

4 RAN2 to agree on editorial Change 2 and 3 from R2-2207369.

5 RAN2 to agree on change 5 and 6 in R2-2207773, additionally:

b. Agree change 2 modified: replace “if csi-rs or srs is included” with “if referenceSignal is set to csi-RS-index or to srs”

c. Agree change 3 modified: Add the following clarification in the field description of field unifiedTCI-StateType “Network only configures the field in the serving cell that is configured with only one value for the coresetPoolIndex”

d. Agree Change 4 modified: For servingAdditionalPCIList use "configured using the additionalPCI-ToAddModList"

e. Agree on Change 5 and 6

9 RAN2 to adopt Change 1 from R2-2208558

11 RAN2 to adopt two first editorials of Change 3 from R2-2208558. Removal of the restriction to be discussed separately (see Prop 8)

12 RAN2 to agree Proposals 1 and 2 of R2-2208652.

* Send LS to RAN1 on checking the field description of “cell” in IE QCL-Info and “servingCellId” in IE TCI-UL-State (can also ask other details)

*Chair: We move P6 to MAC discussion.*

(2 3 7 13 14 10 no decision)

*Chair: Continue offline*

* [AT119-e][002][feMIMO] RRC centric (Ericsson)

 Scope: 1) Based on online progress and discussion, continue identify agreeable parts.
2) LS out to RAN1, 3) RRC CR capturing agreements and agreeable parts.

 Intended outcome: LS out, Report, RRC CR

 Deadline: LS out; can do interactive discussion asap, other deadlines set by rapporteur. CB possibilities W2 tue, wed, fri

R2-2208963 DRAFT LS on further questions on feMIMO RRC parameters Ericsson

Q1

* ZTE would like to specify that the questions are for the scenario then QCLtypeX is for SSB. CATT think this is only for 1a.
* Intel would like to ask more fundamentally what is the relation between servcellindex in QCL-typeX and additionalPCI, when additionalPCI is configured. Ericsson think this is ok (somewhat rephrased). LG support to ask this
* OPPO think that this assumption is clear that additionalPCI is associated with a cell with QCL-info. Intel then wonder if servingcell info is not needed. ZTE agrees.
* Apple find caps-lock typo to be corrected; ON
* Lenovo wonder why additionalPCI resource need to have a serving cell resource. Ericsson think that this is all under serving cell configuration. Lenovo then think the cell info for QCL is redundant. Ericsson think we indeed are asking this.

Q2

* Oppo think 2b should be asked also with Q4. Xiaomi think this is applicable for both Q2 and Q4, can have the same question there.

PHR

* Oppo proposes to remove a and instead just add “when to report Type 1 PH” to b.
* LG think that asking the full understanding is better, prefer current text.
* Scenario clarification for 1a, QCLtypeX is for SSB
* Ask also more fundamentally what is the relation between servcellindex in QCL-typeX and additionalPCI, when additionalPCI is configured.
* Q2b also asked for Q4
* PHR: Change “in” to “for” (two places)
* With these changes the LS out is approved (can have draft for review during meeting), if no new objections within 1h after online session close, then final approval, in R2-2208964

R2-2209040 [AT119-e][002][feMIMO] RRC centric (Ericsson) Ericsson

DISCUSSION W2 Thursday

P1P2

- Chair hope we don’t have missing constants and that we try to keep BC after this meeting.

- OPPO and Ericsson think we can use 39 in the TS.

- HW think this is NBC, but netter now than later. Only impact UEs supporting this feature.

P6

- Samsung confirm that this is a correction aligned with original intention.

* P1 and P2 can be agreed. If no input from R1 in time, then maxNrofSearchSpacesLinks-1-r17 = 39 is used for ASN.1.
* Adopt the following change to RRC CR

beamFailureRecoverySpCellConfig

Configuration of candidate RS for beam failure recovery in SpCells This field is only configured when beamfailure is configured in RadioLinkMonitoringConfig for the SpCells.

* P4 P5 P6 are agreed

R2-2207923 Corrections for Release-17 feMIMO Ericsson CR Rel-17 38.331 17.1.0 3325 - F NR\_FeMIMO-Core R2-2207733

Moved Here

R2-2207127 Clarification on search space link id and others OPPO CR Rel-17 38.331 17.1.0 3218 - F NR\_FeMIMO-Core

R2-2207369 Correction on 38.331 for feMIMO Langbo CR Rel-17 38.331 17.1.0 3253 - F NR\_FeMIMO-Core

R2-2207733 Discussion on Rel-17 MIMO RRC corrections Ericsson discussion Rel-17 NR\_FeMIMO-Core Revised

R2-2207773 Miscellaneous RRC corrections for feMIMO CATT CR Rel-17 38.331 17.1.0 3312 - F NR\_FeMIMO-Core

R2-2207810 Clarification on the initial state of BFD RS Xiaomi draftCR Rel-17 38.331 17.1.0 F NR\_FeMIMO-Core

R2-2208557 CR on 38.331 for TCI-state ZTE Corporation,Sanechips CR Rel-17 38.331 17.1.0 3441 - F NR\_FeMIMO-Core

R2-2208558 CR on 38.331 for TCI-UL-state ZTE Corporation,Sanechips CR Rel-17 38.331 17.1.0 3442 - F NR\_FeMIMO-Core

R2-2208652 FeMIMO RRC corrections Huawei, HiSilicon discussion Rel-17 NR\_FeMIMO-Core

* [002] all tdocs above are noted

### 6.17.3 MAC centric Corrections

R2-2208923 MAC centric summary – focus on initial topic Samsung

DISCUSSION

P2

* ZTE think network is always allowed to send the MAC CE and it is up to network to not cause ambiguity. On 2nd bullet, think this is RAN1 reponsibility.
* Oppo think this related to UE cap, If the UE doesn’t support MAC CE then the network need to configure by RRC, and take this as activated resources. IF supporting MAC CEs then UE need to wait.
* Huawei think ti could be simple. If the UE has the information required for BFD the UE does it otherwise not. Don’t need to ask R1 for this very temporary situation .
* Intel think the motivation is that if there are more than two resources then MAC CE would be used. Think the MAC CE is only needed when no resources > 2 and this could be clarified.
* Xiaomi think there can be different network impl, with and wo MAC CEs. Networks wo MAC CE support can configure up to 2 resources.
* Chair: Continue offline

P3

* Two candidate solutions, LG and QC. Samsung think we need to resolve this in any case.
* LG think QC text is not sufficient to resolve this, not clear how the UE obtain the value. QC think the UE behaviour is clear in R1, think the timing is the decision critieron
* ZTE think L1 determines this. Think the case of no PHR mode configured is missing in R1 spec and this need to be addressed. R2 TS should refer to R1 TS we can ask R1 to capture details.
* LG think that L1 doesn’t know which MAC entity is configured with 2PHRmode
* Nokia think we can agree intention first. Think the QC paper describes it well.
* Huawei think that if the UE reports one value, there is anyway missing information, and this will not help the network operation. Intel agrees.
* Chair: Continue offline

P4

* HW think this is not for thie WI
* Nokia think that if the network decides to not use dyn power sharing it can be disabled, e.g. for the situation that we cannot report two PH.
* LG think the principle is that all PH for all MAC entities are reported in ONE PHR.
* ZTE think that if two PH values are important then itg can be made mandatory.
* Chair: Continue offline

P5

* LG has different understanding, type 3 text applies.

P6

* QC think that if current MAC CE can work, we don’t change it now
* OPPO ZTE Huawei LGE agrees
* Nokia think this was mainly a mistake last meeting.
* Chair: can keep open and CB towards the end of meeting (but there seems to be significant opposition).

P7

* This change try to clarify the mapping between TCI code point and configuration. OPPO think there is no serious problem b ut can agree to clarify last part of P7
* *BFI\_COUNTER* of a BFD-RS set is set to 0 if the reference signals used for beam failure detection are updated by the BFD-RS Indication MAC CE.
* [AT119-e][001][feMIMO] MAC centric (Samsung)

 Scope: 1) Based on online progress and discussion, continue identify agreeable parts.
2) MAC CR capturing agreements and agreeable parts.

 Intended outcome: Report, RRC CR

 Deadline deadlines set by rapporteur. CB possibilities W2 tue, wed, fri

R2-2209020 Report of [AT119-e][001][feMIMO] MAC centric Samsung

DISCUSSION W2 Thursday

P3

- CATT think the second bullet is wrong, and focus on the first bullet.

- QC agrees with CATT and think the second bullet may not be needed. If the TCI CP cannot be mapped to TCI state then Pi interpretation can be left for UE impl.

- ASUS think that the second bullet is there to clarify that mapping of all code points is not necessary.

- LG error handling general text already handles this.

P5

- Xiaomi wonder for bullet 2, if when we have the use case that 2 BFD RS is configured whether one can be activated. Samsung think that one or two dep on UE cap.

- LG point out that the wording if the UE supports .. is maybe not so good.

- CATT think that the order in RRC is not a good way to indicate, should consider other solution, e.g. TCI used.

- OPPO think this is not UE friendly, could be acceptable, but don’t want the second bullet. Second bullet would be an abnormal case and network should just not do this, MAC CE shall be used if the RS set > 2. Apple agrees.

- Samsung think that the bullet 2 is useful.

- Xiaomi, apple oppo Catt Intel think bullet 1 is sufficient.

- QC think that bullet 2 is for networks that doesn’t support this MAC-CE.

- Xiaomi think the bullet 2 is for the time period between RRC config and MAC CE. Can also consider that all are deactivated. Nokia agrees, that it is reasonable that the network has to send the MAC CE.

- Samsung wonders whether to capture this in RRC or MAC? Chair think this can be discussed offline (post). Ericsson and Nokia think MAC. Samsung think for initial activation, maybe RRC.

* Agree P1 P2 P3 (first bullet only) and P4
* The point in time when BFD-RS indication MAC CE is sent is determined by NW implementation (i.e. there are no restriction on the NW).

Upon RRC configuration:

- UE assume the BFD RSs in each BFD-RS set as activated in case that the number of BFD RSs in any of the BFD RS sets configured by RRC is less than or equal to maxBFD-RS-resourcesPerSetPerBWP-r17.

- For the case that the number of BFD RSs in any of BFD RS sets configured by RRC is larger than the maxBFD-RS-resourcesPerSetPerBWP, all BFD RSs in the configured BFD RS are default deactivated when configured by RRC. (Assuming this is for the case that both UE and network support MAC CE)

R2-2208526 Miscellaneous MAC Corrections on feMIMO Samsung CR Rel-17 38.321 17.1.0 1389 - F NR\_FeMIMO-Core

Moved Here

R2-2207364 BFD-RS set specific BFI\_COUNTER resetting Langbo CR Rel-17 38.321 17.1.0 1313 - F NR\_FeMIMO-Core

R2-2207365 Correction on 38.321 for feMIMO Langbo CR Rel-17 38.321 17.1.0 1314 - F NR\_FeMIMO-Core

R2-2207405 Correction to BFI\_COUNTER reset Fujitsu CR Rel-17 38.321 17.1.0 1315 - F NR\_FeMIMO-Core

R2-2207570 CR for correction on PH selection LG Electronics Inc. CR Rel-17 38.321 17.1.0 1324 - F NR\_FeMIMO-Core

R2-2207774 Miscellaneous MAC corrections for feMIMO CATT CR Rel-17 38.321 17.1.0 1338 - F NR\_FeMIMO-Core

R2-2207809 Clarification on the deactivated SCell of the unified TCI-state Xiaomi draftCR Rel-17 38.321 17.1.0 F NR\_FeMIMO-Core

R2-2208018 Remaining issues on PHR for FeMIMO Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_FeMIMO-Core

R2-2208114 Remaining issues of feMIMO MAC Qualcomm Incorporated discussion Rel-17 NR\_FeMIMO-Core

R2-2208366 Corrections on Unified TCI States Activation/Deactivation MAC CE ASUSTeK CR Rel-17 38.321 17.1.0 1383 - F NR\_FeMIMO-Core

R2-2208527 Handling of BFD-RS Set Configuration and Activation Samsung discussion NR\_FeMIMO-Core

R2-2208653 Corrections to FeMIMO MAC Huawei, HiSilicon CR Rel-17 38.321 17.1.0 1397 - F NR\_FeMIMO-Core

* [001] all tdocs above are Noted

Withdrawn

R2-2207731 Corrections for Release-17 feMIMO Ericsson CR Rel-17 38.331 17.1.0 3304 - F NR\_FeMIMO-Core Withdrawn

## 6.18 RACH indication and partitioning

Tdoc Limitation: 2 tdocs

Expected to cover WIs SDT, CovEnh, RedCap, RAN slicing. RA specific aspects from the different WI should be covered in this AI given the RA experts are all there.

### 6.18.1 Common signalling framework

A single CR with miscelaneous corrections is encouraged. Small editorial corrections should be sent directly to rapporteur. Big open issues can be discussed in a contributions with CR in the appendix of the contribution

R2-2207679 Miscellaneous corrections to slice-specific RACH configuration Spreadtrum Communications discussion Rel-17

R2-2207820 Correction on TS 38 331 for RACH common CATT CR Rel-17 38.331 17.1.0 3317 - F NR\_cov\_enh-Core, NR\_slice-Core, NR\_SmallData\_INACTIVE-Core, NR\_redcap-Core

R2-2207981 Correction on startPreambleForThisPartition ZTE Corporation, Sanechips, Ericsson CR Rel-17 38.331 17.1.0 3341 - F NR\_redcap-Core

R2-2207982 Configuration of preambles for feature combination ZTE Corporation, Sanechips discussion

R2-2207989 RRC corrections to common RACH framework Huawei, HiSilicon draftCR Rel-17 38.331 17.1.0 NR\_SmallData\_INACTIVE-Core, NR\_slice-Core, NR\_redcap-Core, NR\_cov\_enh-Core

R2-2207997 On the number of RACH partitions MediaTek Inc. discussion Rel-17 NR\_cov\_enh-Core, NR\_slice-Core, NR\_SmallData\_INACTIVE-Core, NR\_redcap-Core

R2-2208240 Miscellaneous corrections to common signalling for RACH partitioning Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.1.0 3389 - F NR\_SmallData\_INACTIVE-Core, NR\_cov\_enh-Core, NR\_redcap-Core, NR\_slice-Core

R2-2208399 Correction on Feature Combination LG Electronics Inc. CR Rel-17 38.331 17.1.0 3415 - F NR\_SmallData\_INACTIVE-Core, NR\_slice-Core, NR\_redcap-Core, NR\_cov\_enh-Core

### 6.18.2 Common aspects of RACH procedure

A single CR with miscelaneous corrections is encouraged. Small editorial corrections should be sent directly to rapporteur. Big open issues can be discussed with contributions with CR in the appendix of the contribution

R2-2207905 UL carrier selection for RA-SDT Nokia, Nokia Shanghai Bell CR Rel-17 38.321 17.1.0 1353 - F NR\_SmallData\_INACTIVE-Core

R2-2207990 MAC correction to the RACH partitioning Huawei, HiSilicon draftCR Rel-17 38.321 17.1.0 NR\_SmallData\_INACTIVE-Core, NR\_slice-Core, NR\_redcap-Core, NR\_cov\_enh-Core

R2-2208131 Correction to CFRA with additionalRACH-Configs Ericsson discussion Rel-17 NR\_redcap-Core, NR\_SmallData\_INACTIVE-Core, NR\_cov\_enh-Core, NR\_slice-Core

R2-2208132 Correction to CFRA with additionalRACH-Configs Ericsson CR Rel-17 38.321 17.1.0 1372 - F NR\_redcap-Core, NR\_SmallData\_INACTIVE-Core, NR\_cov\_enh-Core, NR\_slice-Core

R2-2208400 Correction on fallback cases from CFRA to CBRA in CE-only BWP LG Electronics Inc. discussion Rel-17 NR\_SmallData\_INACTIVE-Core, NR\_slice-Core, NR\_redcap-Core, NR\_cov\_enh-Core

R2-2208614 38.321 CR Correction on the provision of the feature applicability for RACH Beijing Xiaomi Software Tech draftCR Rel-17 38.321 17.1.0 F NR\_SmallData\_INACTIVE-Core, NR\_cov\_enh-Core, NR\_redcap-Core, NR\_slice-Core

R2-2208662 Correction on RO Selection with RA Partitioning vivo CR Rel-17 38.321 17.1.0 1398 - F NR\_SmallData\_INACTIVE-Core, NR\_cov\_enh-Core, NR\_redcap-Core, NR\_slice-Core

## 6.19 Coverage Enhancements

(NR\_cov\_enh-Core; leading WG: RAN1; REL-17; WID: RP-211566)

Tdoc Limitation: 2 tdoc

Common aspects related to RACH indication (in MSG1) / RACH partitioning shall be submitted to 6.18

### 6.19.1 Organizational

Rapporteur input, incoming LS etc. CR Rapporteurs may provide baseline correction CRs containing smaller corrections, text clarifications, etc - please contact the CR rapporteurs before providing contributions on those aspects.

R2-2206960 Reply LS to RAN1/RAN2 on DMRS bundling (R4-2211225; contact: MediaTek) RAN4 LS in Rel-17 NR\_cov\_enh To:RAN1, RAN2

R2-2207891 Miscellaneous corrections to NR coverage enhancements Huawei, HiSilicon, China Telecom, ZTE Corporation CR Rel-17 38.331 17.1.0 3323 - F NR\_cov\_enh-Core

### 6.19.2 General

All aspects.

R2-2207130 Discussion on Capability of DMRS Bundling vivo discussion Rel-17 NR\_cov\_enh

R2-2207132 Clarification on only CE RACH Resources vivo CR Rel-17 38.300 17.1.0 0497 - F NR\_cov\_enh

R2-2208184 Correction of need codes and field descriptions for DMRS bundling Ericsson CR Rel-17 38.331 17.1.0 3375 - F NR\_cov\_enh-Core

## 6.20 Extending NR operation to 71GHz

(NR\_ext\_to\_71GHz-Core; leading WG: RAN1; REL-17; WID: RP-212637)

Tdoc Limitation: 3 tdocs

Rapporteurs may provide baseline correction CRs containing smaller corrections, text clarifications etc - please contact the Rapporteur before providing contributions on those aspects.

### 6.20.1 Organizational

Including LSs and any rapporteur inputs.

R2-2206913 LS to RAN2 on RRC parameter updates for NR up to 71GHz (R1-2205380; contact: Qualcomm) RAN1 LS in Rel-17 NR\_ext\_to\_71GHz-Core To:RAN2

R2-2206925 LS on TCI assumption for RSSI measurement for FR2-2 (R1-2205582; contact: Qualcomm) RAN1 LS in Rel-17 NR\_ext\_to\_71GHz-Core To:RAN4, RAN2

R2-2206956 LS on CCA configurations of neighbour cells (R4-2211171; contact: Nokia) RAN4 LS in Rel-17 NR\_ext\_to\_71GHz-Core To:RAN1, RAN2

R2-2207254 discussion on RAN4 LS R4-2211171 Ericsson discussion Rel-17 NR\_ext\_to\_71GHz-Core

R2-2207256 Correction of RRC CR for 71 GHz Ericsson CR Rel-17 38.331 17.1.0 3237 - F NR\_ext\_to\_71GHz-Core

R2-2207985 Discussion on CCA configuration of neighbour cell ZTE Corporation, Sanechips discussion

### 6.20.2 Control plane corrections

Including essential control plane corrections to NR operation up to 71GHz.

R2-2207253 Corrections of UE Capabilityíes for FR2-2 Ericsson discussion Rel-17 NR\_ext\_to\_71GHz-Core

R2-2207255 Discussion the need of BWP index for L3 RSSI measurement configuration Ericsson discussion Rel-17 NR\_ext\_to\_71GHz-Core

R2-2207460 Discussion on CCA configurations of neighbour cells in FR2-2 Apple discussion Rel-17 NR\_ext\_to\_71GHz-Core

R2-2207461 [Draft] LS Reply on CCA configurations of neighbour cells in FR2-2 Apple LS out Rel-17 NR\_ext\_to\_71GHz-Core To:RAN4, RAN1

R2-2207543 CCA information for neighbour cells Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_ext\_to\_71GHz-Core

R2-2207544 CCA information for neighbour cells Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.1.0 3276 - F NR\_ext\_to\_71GHz-Core

R2-2207959 Release FR2-2 related preference indication configurations in RRC connection reestablishment Google Inc. CR Rel-17 38.331 17.1.0 3336 - F NR\_ext\_to\_71GHz-Core

R2-2207983 CSI-RS related issues for NR operation above 71 GHz ZTE Corporation, Sanechips discussion

R2-2207984 Inter-RAT measurement issues for NR operation above 71 GHz ZTE Corporation, Sanechips discussion

R2-2208063 Discussion on RSSI measurement issues for FR2-2 Huawei, HiSilicon discussion Rel-17 NR\_ext\_to\_71GHz-Core

R2-2208064 Correction to PO configuration for FR2-2 Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3352 - F NR\_ext\_to\_71GHz-Core

R2-2208065 Discussion on the LS on the CCA configuration of neighbour cell Huawei, HiSilicon discussion Rel-17 NR\_ext\_to\_71GHz-Core

R2-2208252 Channel Access Mode for Neighbor Cells Qualcomm Incorporated CR Rel-17 38.331 17.1.0 3390 - F NR\_ext\_to\_71GHz-Core

R2-2208515 Discussion on a defalut value of duration-r17 for SCS 480 kHz and 960 kHz LG Electronics Inc. discussion Rel-17 NR\_ext\_to\_71GHz-Core

R2-2208516 Correction on duration-r17 for SCS 480 KHz and 960 KHz LG Electronics Inc. CR Rel-17 38.321 17.1.0 1388 - F NR\_ext\_to\_71GHz-Core

### 6.20.3 User plane corrections

Including essential user plane corrections to NR operation up to 71GHz.

## 6.21 TEI17

### 6.21.1 TEI proposals

Including incoming LSes. Only TEI proposals in progress and Very Essential new proposals (if any at all), co-signed by at least one operator.

Tdoc Limitation: 1 tdoc

Online – if time allows

LS in

R2-2206954 LS on timing advance (TADV) report mapping for NR UL E-CID positioning (R4-2211167; contact: Ericsson) RAN4 LS in Rel-17 TEI17 To:RAN1, RAN3 Cc:RAN2

Chair: RAN2 is CCed,

* Noted [000]

R2-2206958 LS on Incorrect PMI Reporting (R4-2211204; contact: Apple) RAN4 LS in Rel-17 TEI17 To:RAN Cc:RAN1, RAN2

Chair: RAN2 is CCed,

* Noted [000]

R2-2206904 Reply LS on EPS fallback enhancements (C1-223535; contact: Qualcomm) CT1 LS in Rel-17 TEI17 To:SA2, RAN2 Cc:SA3

Chair: Already decided last meeting.

* Noted [000]

R2-2206974 Reply LS on EPS fallback enhancements (S3-221162; contact: Ericsson) SA3 LS in Rel-17 TEI17 To:RAN2 Cc:SA2, CT1

Chair: Already decided last meeting.

* Noted [000]

Emergency services fallback

R2-2208617 Enhancements for emergency services fallback handling Huawei, HiSilicon, CMCC, China Telecom, China Unicom, Telecom Italia discussion Rel-17 TEI17

DISCUSSION

- Ericsson wonder what happens if the UE goes to another PLMN. HW think the UE is in limited service mode and UE is allowed emergency service (only).

- VDF think the intention is ok, but are concerned, and think acceptable cells should be last resort. Need to be re-written. Intel agrees, and think that acceptable cell should be the last resort.

- Intel understand that there is a SIB-flag that would need to checked. Huawei agrees, that the UE would look for Cells with this flag and only select cell among such cells.

- TMO has concerns of P2, risk to select another PLMN, think there may be UE impl that does this.

- Nokia wonder if there is something preventing the UE to do this? BT also has this question

- BT wonder if acceptable cell also could mean that UE does receive ETWS and CMAS.

- Huawei think that the latency of emergency service is important. After the service is over, then the UE will go back to suitable cell.

- vivo think is a MO case, and not just fallback.

- Nokia think that at HO failure the UE would attempt reestablishment first, this should be allowed.

- QC agrees that P1 is a correction and can thus be discussed. P2 think the UE can resolve this by itself (by UE implementation). QC think this could be a good compromise. TMO agrees.

Chair: There seems to be support for these behaviours (no definite objection), at least P1 (with some modification, e,g, VDF comment), possibly P2 (can maybe be left for UE impl). Some comments on the details, whether it can be done already today, what would be the detailed change, whether there could be unwanted side effects.

* [AT119-e][037][NRTEI17] Emergency Service Enhancement (Huawei)

 Scope: Continue discussion on R2-2208617, Determine agreeable parts. For agreeable parts work on a CR.

 Intended outcome: Report with agreements (offline only if possible), Agreed CR (can also be done as short Post discussion)

 Deadline: EOM

- [037] Chair: It was initially agreed to have a short post email discussion to finalize RRC CR based on P1-P6 (below or slight variation if needed), and confirm the proposed agreements in the post discussion, by Mon Aug 29.

- [037] Late Comment (after EOM) by T-Mobile US: The proposed changes modify legacy UE behavior, e.g. P1 changes behavior that is release 15.8.0. EPS fallback has been deployed for a long time now as such we need time to check the proposed changes against current implementations. T-Mobile has concerns with approving this now and requests that a decision be made at the next RAN2 meeting.

- [037] Chair: The Post email discussion to be only about the proposals and the way forward. The CR is postponed to the next quarter.

Chair: NOTE that the agreements were modified after EOM due to a late comment.

* [037] The CR is postponed
* [037] The objective of the Post email discussion is to Continue the AT-meeting discussion, collect further comments on the proposals, reach a potentially agreeable way forward for the next meeting, starting from the following proposals (still in just a short email discussion, the short email discussion will not make a decision, the report shall be input to the next meeting):

P1: UE should be allowed to select an acceptable cell when there is no suitable cell for emergency call upon HO failure during EPS fallback.

P2: UE shall perform suitable cell search first, and may perform acceptable cell search only when no suitable cell is found.

P3: the UE is allowed to select a suitable E-UTRA cell upon HO failure during Emergency service fallback.

P4: UE is allowed to select an acceptable cell when there is no suitable cell for emergency call upon HO failure during EPS fallback.

P5: the same option adopted for EPS fallback applies to emergency service fallback, i.e. UE shall perform suitable cell search first, and may perform acceptable cell search only when no suitable cell is found.

P6: the specification is to be updated to allow the UE to select to a suitable first, and may select an acceptable cell if no suitable cell found for emergency service fallback.

* [Post119-e][037][NRTEI17] Emergency Service Enhancement CR (Huawei)

 Scope: Continue from [AT119-e][037], Collect further comments on the proposals, clarify potential issue if possible, reach a potentially agreeable way forward for the next meeting,

 Intended outcome: Report (to be submitted to next meeting, to be used as baseline for continued disc)

 Deadline: 1 week

* [AT119-e][038][NRTEI17] Comments on New proposals (Chair)

 Scope: Collect a round of comments on the new TEI proposals in R2-2208241, R2-2207434, R2-2208430, R2-2208668, R2-2207938 in order to determine if any of these could be agreeable.

 Intended outcome: Report for CB W2 Friday

 Deadline: W2 Thursday 1800 UTC

R2-2209112 Comments on new proposals, report of [038] R2 Chair (MediaTek inc)

* Noted, outcome reflected below

MDT

R2-2208241 Inclusion of the CSI reports in MDT framework Nokia, Nokia Shanghai Bell, Deutsche Telekom, Verizon discussion Rel-17 TEI17, NR\_ENDC\_SON\_MDT\_enh-Core R2-2206144

- [038] Chair: Responsibility split: It seems the stage-3 impact is in SA5. As RAN2 has Stage-2 responsibility RAN2 can take initiatives. There are no clear objections and some support. We cannot really request SA5 to do work as a TEI request, so I guess if agreeable we would need to ask nicely and e.g. ask if they have the capacity / have WI for this? (SA5 are known to spawn lots of WIs). However as a first step we would need to agree this is useful, and consider whether there is more work for us (hidden).

We discuss briefly online,

DISCUSSION

- Ericsson has concerns. Q1 is what is the advantage of collecting CSI measurements, think also the configuration need to be known to make sense of CSI report.

- HW think CSI report here is too general and we need to discuss more in detail, CQI, PMI etc, and wonder which of these to be considered.

- ZTE has similar concern as Ericsson and HW, proposal is not clear, what to collect and how to interpret.

- Nokia think we already have a framework for L3 measurements collection, but that doesn’t cover beam characteristics. CSI contains all of RI, CQI, PMI.

- Chair wonder if we can collect today L1 bitrate, e.g. total TB size in a TTI etc (which seems to be on a highest level the info you get from CSI).

*Chair: it seems there are a number of questions and concerns related to the additional work needed, and the usefulness. It seems we indeed will need to do some more work if we take this proposal.*

* Cannot agree (for R17)

**DRX with bundling**

R2-2208668 Correction to DRX operation with bundling controlled in the DCI Ericsson, Nokia, T-Mobile USA, Verizon, Docomo discussion Rel-17

- [038] Chair: There is some opposition, and some support (the support/accept seems to have grown). Considering that the proposal is to make this configurable, adapting to different traffic case, it seems there may be a possibility to convince opponents.

- [038] Can discuss online, briefly.

DISCUSSION

- Chair point out that the proposal is to make this configurable.

- LGE are reluctant, but can accept majority view. Q: if configurable will we specify that it works with cancellation or not. Ericsson think that it cannot work with cancellation/early termination.

- OPPO wonder from which release. Ericsson clarifies for R17.

- Intel think that a pre-requisite for this feature is R16 bundling w DCI control. Ericsson confirms but can be considered general, no reason to limit. Chair think this aspect can be discussed offline.

*Chair: as this is TEI, no further enhancement beyond this is expected / shall be done. Such proposals will be rejected (bug fixes are of course ok).*

* If agreed, should be clear that the new behaviour shall/should not be applied with cancellation / early termination
* Agree to support this, details in CR discussion in a post discussion
* [Post119-e][042][NRTEI17] CRs for DRX operation with bundling controlled in the DCI (Ericsson)

 Scope: Continue based on progress for R2-2208668. Arrive at agreeable CRs (UE cap CRs assumed to not be merged)

 Intended outcome: Agreed CRs

 Deadline: Short

SDAP

R2-2207434 SDAP end-marker in RLC UM Apple, Futurewei, Spreadtrum, FGI, Asia Pacific Telecom, T-Mobile USA, ZTE Corporation discussion Rel-17 TEI17 R2-2205679

- [038] Chair; As the proposal seems indeed to require a couple of meetings convergence time, it seems not so suitable for TEI, and definitely impossible for Rel-17. A number of opposing companies mentions XR, so potentially a Way forward could be to propose this in that scope (in Rel-18). There are however also some companies that just opposes (regardless XR).

*No Discussion. Can not be pursued for TEI17*

Remote Access

R2-2208430 Discussion on remote access issue CMCC, vivo, Huawei discussion Rel-18 TE

- [038] Chair: There is some opposition, Lots of questions questioning the usefulness and whether not other solutions would be better, and there is limited Support. It seems significant discussions would be needed to potentially convince questioning and opposing companies. It seems not feasible to converge on this for Rel-17.

*No Discussion.*

Priority interfreq measurements

R2-2207938 Priority based inter-freq measurement reporting Apple discussion Rel-17 TEI17

*Moved from 6.21.2*

- [038] Chair: ok, given the comments there is no chance to converge on this in TEI17, and likely the topic is also not very suitable for TEI at all. However there is some interest. Chair opinion: In order to really discuss e.g. at TSG RAN whether to add an objective to a WI, the problem and objective must be better described. All papers in RAN2 on these topics have focused on solutions, and as LG point out, it is possible to find methods to address this without impacting standard.

- [038] No Discussion is proposed

DISCUSSION (requested by VDF)

- VDF think the problem is VERY clear. Suggest an email discussion. Target to agree on a solution.

- Ericsson think the problem is that the UE may not report the strongest frequency.

- HW think it is unrealistic that this is done in TEI, think that without R4 involvement we will not even understand if there is a problem. Not suitable to pursue this in R17.

- Nokia agrees this is a RAN4 issue that should be discussed in RAN4. LGe agrees

- Apple think we should have an offline discussion.

* No further discussion for R17 (chair think the proponents should bring this to plenary if there is a real problem to resolve).

### 6.21.2 Corrections

Corrections CRs (Correction to TEI or TEI + other WI code) or detailed modifications to agreed proposals

* [AT119-e][020][NR17] TEI Corrections (vivo)

 Scope: Treat R2-2207607, R2-2207608, R2-2207609, R2-2207610, R2-2207529, R2-2208372. Determine agreeable parts. For Agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs

 Deadline: Schedule 1

R2-2208999 Report of [AT119-e][020][NR17] TEI Corrections (vivo) vivo

- [020] Rap: RAN2 will not make any decision on Measurement requirements for early measurement for EPS Fallback, and there will be No LS on early measurement for EPS Fallback to RAN4. Chair comment: For TEI enhancement we will have to do with impact in only one group, and this was also part of the initial agreement.

- [020] Rap: No further correction on the following note in section 5.7.8.2a of TS 38.331: When idleModMeasVoiceFallback is included in SIB5, UE may decide to measure and report idle/inactive measurements for EUTRA carrier frequencies included in SIB5 even if it does not support NE-DC between the serving carrier and the EUTRA carrier frequencies.

- [020] Rap: No change on current field description of *idleModeMeasVoiceFallback*

* [020] EUTRA carrier frequencies included in SIB11 will not be used for idle/inactive measurement for EPS fallback.
* [020] Noted, agreements reflected also below

EPS Fallback

offline

R2-2207607 Early measurement for EPS Fallback vivo discussion Rel-17 TEI17

* [020] noted

R2-2207608 38331 CR for Early measurement for EPS Fallback vivo CR Rel-17 38.331 17.1.0 3292 - B TEI17

* [020] Not pursued

R2-2207609 38306 CR for Early measurement for EPS Fallback vivo CR Rel-17 38.306 17.1.0 0774 - B TEI17

* [020] Revised

R2-2209219 38306 CR for Early measurement for EPS Fallback vivo CR Rel-17 38.306 17.1.0 0774 1 B TEI17

- [Post119-e][000] Chair: There was a late cover sheet revision.

* [Post119-e][000] Agreed

R2-2207610 LS to RAN4 on idle\_inactive measurement for EPS Fallback vivo LS out Rel-17 TEI17 To:RAN4

* [020] noted - not needed

Others

R2-2207529 Corrections to the description of gNB ID length reporting capabilities [gNB\_ID\_Length] Lenovo CR Rel-17 38.306 17.1.0 0769 - F TEI17

* [020] agreed

R2-2208372 Corrections on mpsPriorityIndication Huawei, HiSilicon discussion Rel-17 TEI

* [020] The intention of the *mpsPriorityIndication* field description in R2-2208372 for TS 38.331 and TS 36.331 is agreed.
* [020] The *mpsPriorityIndication* validation in R2-2208372 for TS38.331 and TS36.331 is not pursued
* [020] RAN2 understands that the UE will set *establishmentCause* to *mps-PriorityAccess* when UE was released with redirect with *mpsPriorityIndication* to the indicated RAT as one-shot thing

R2-2209033 Correction on mpsPriorityIndication Huawei, HiSilicon CR Rel-16 36.331 16.9.0 4870 - F TEI16

R2-2209034 Correction on mpsPriorityIndication Huawei, HiSilicon CR Rel-17 36.331 17.1.0 4871 - A TEI16

* [020] Both agreed

R2-2209035 Correction on mpsPriorityIndication Huawei, HiSilicon CR Rel-16 38.331 16.9.0 3472 - F TEI16

R2-2209036 Correction on mpsPriorityIndication Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3473 - A TEI16

* [020] Both agreed

## 6.22 NR and MR-DC measurement gap enhancements

(NR\_MG\_enh-Core; leading WG: RAN4; REL-17; WID: RP-211591)

Tdoc Limitation: 2 tdocs

CR Rapporteur to provide baseline correction CR. For smaller corrections, text clarifications etc please contact CR editor.

BWP#0 for pre-configured MG

Online First

R2-2206939 LS on R17 NR MG enhancements – Pre-configured MG (R4-2210587; contact: OPPO, Intel) RAN4 LS in Rel-17 NR\_MG\_enh-Core To:RAN2

* R2 confirms the observation in the LS

DISCUSSION on whether to fix this

- OPPO think that by default the MG will be active on BWP0, so the gain of the feature is lost if not fixed.

- LG think this can be fixed by network impl, can avoid switch to BWP0, no change needed. HW has the same understanding.

* We rely on network impl. to avoid this

R2-2206999 Response LS on RRC-based Pre-MG (de)activation on BWP#0 OPPO LS out Rel-17 NR\_MG\_enh-Core To:RAN4

R2-2207000 Discussion on RRC-based Pre-MG (de)activation on BWP#0 OPPO discussion Rel-17 NR\_MG\_enh-Core

R2-2207145 Discussion on pre-configured MG for BWP#0 Huawei, HiSilicon discussion Rel-17 NR\_MG\_enh-Core

* 3 tdocs noted

R2-2208105 Correction on pre-configured gap activation and deactivation ZTE Corporation, Sanechips CR Rel-17 38.331 17.1.0 3356 - F NR\_MG\_enh-Core

* [AT119-e][033][MGE] (MediaTek)

 Scope: Treat R2-2206940, R2-2208471, R2-2207146, R2-2208464, R2-2208562, R2-2208106, R2-2207895. Determine agreeable parts, for agreeable parts, capture in CR(s)

 Intended outcome: Report, Agreed CR (s), LS out if applicable

 Deadline: EOM (offline only, if possible)

R2-2209030 Report of [AT119-e][033][MGE] (MediaTek) MediaTek. Inc.

DISCUSSION online W2 Thu only on the specific proposal below

- ZTE think bullet 1 is sufficient. QC support ZTE. Intel agrees, think the 2nd bullet is not so important

- Xiaomi wonder if we need LS to R4. MTK are ok with that, but think not strictly needed. fEricsson Intel HW think LS is not needed.

*Chair comment: there is no intention that RAN2 asks RAN4 to specify requirements for this case (which is up to R4 as always)*

* For concurrent gap configuration, RAN2 understands that: The NW could configure one gap via legacy field (*without* gap ID and gap priority) and the other gap via new field (with gap ID and gap priority). RAN2 observes that in this configuration, there is currently no requirement in case of gap collision.

*[033] Offline agreements are reflected below*

RRC CR

[033] Rap:

- For 38.331 CR, I would like to request a short post-meeting email discussion to confirm the mgta configuration aspect (related to agreeable CR R2-2208106).

- I got input from our RAN4 colleague (based on the agreeable RAN4 CR [R4-2214514](https://urldefense.com/v3/__https%3A/www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_104-e/Inbox/R4-2214514.zip__;!!CTRNKA9wMg0ARbw!y9Z0QFTTQ5So2kBiEV4kSMOX4MxJwKRpQwsZqYqXciBFSHrd-V1PuYJUSLdoMnNhrdVclw$)) that only the following *mgta* configuration could be used for NCSG

 Per UE NCSG (0ms)

 FR1 gap NCSG (0ms)

 FR2 gap NCSG (0ms, 0.75ms)

- The field description is updated in v2 with the following sentence

 If *ncsgInd* is present, the network only configures 0ms for per-UE NCSG and FR1 NCSG and only configures 0ms or 0.75ms for FR2 NCSG.

- I assume companies need some time to confirm with RAN4 colleagues.

* [Post119-e][047][MGE] RRC CR (MediaTek)

 Scope: Continue discussion from [AT119-e][033], take into account RAN4 agreements on mgta.

 Intended outcome: Agreed RRC CR

 Deadline: Short

Capability

R2-2206940 LS on R17 MG enhancement - NCSG (R4-2210589; contact: Apple) RAN4 LS in Rel-17 NR\_MG\_enh-Core To:RAN2 Cc:RAN1

* [033] Noted

R2-2208471 Remaining Issues on MGE Capabilities MediaTek Inc. discussion NR\_MG\_enh-Core

* [033] Noted,
* [033] 38.306 TP for capability field *ncsg-MeasGapPatterns-r17* in R2-2208471 is agreed to be added in MGE Capability CR for further discussion.
* [033] RAN2 agree to remove the following editor note in 38.306

Editor's Note: current version assume procedure is specify in RAN4 spec. Change is needed according if it will specify in 331.

R2-2207146 Correction on NCSG pattern Huawei, HiSilicon CR Rel-17 38.306 17.1.0 0762 - F NR\_MG\_enh-Core

* [033] Not pursued

R2-2209032 Correction on measurement gap enhancement capabilities MediaTek Inc. CR Rel-17 38.306 17.1.0 0800 - F NR\_MG\_enh-Core

* [033] Endorsed for merge with Mega CR.

Other Corrections

R2-2208464 Remaining Issues for MGE Configurations MediaTek Inc. discussion NR\_MG\_enh-Core

DISCUSSION, brief, online, only on P2

- QC doesn’t see the motive behind this, we can do this with legacy ASN.1. HW agrees.

- Apple asks why this is important.

- Ericsson think this part refers to a legacy-ish gap, and the advantage is that such gaps could be used as a pre gap.

*Chair: P2 Seems not agreeable, but also not clear whether/which clarifications are needed, some confusion, can continue offline.*

*[033] Rap proposes to continue offline on other proposals*

* [033] Agree to add the following clarification in 38.331 field *gapToAddModList*

This field is used only for a UE that supports pre-configured measurement gap, concurrent measurement gap, or NCSG.

* [033] Noted

R2-2208562 Clarification on associatedMeasGapSSB for concurrent MG Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.1.0 3443 - F NR\_MG\_enh-Core

* [033] not pursued

R2-2208106 Correction on mgta configuration ZTE Corporation, Sanechips CR Rel-17 38.331 17.1.0 3357 - F NR\_MG\_enh-Core

* [033] CR R2-2208106 is agreed to be added in MGE RRC correction CR for further discussion.
* [033] Merged

R2-2207895 Gap coordination for MR-DC Google Inc. CR Rel-17 38.331 17.1.0 3324 - F NR\_MG\_enh-Core, NR\_pos\_enh-Core

* [033] not pursued

## 6.23 Uplink Data Compression (UDC)

(NR\_UDC\_enh-Core; leading WG: RAN2; REL-17; WID: RP-211203)

Tdoc Limitation: 1 tdocs

* [AT119-e][021][UDC] UDC corrections (Samsung)

 Scope: Treat R2-2207940, R2-2208205, R2-2208587. Determine agreeable parts. For the agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs (if any)

 Deadline: Schedule 1

R2-2209004 Offline 21: UDC Correction Samsung

* [021] Noted, agreements reflected below

R2-2207940 Discussion on UE behaviour about UDC in RRC resume procedure Huawei, HiSilicon discussion Rel-17 NR\_UDC-Core

* [021] Noted
* [021] RAN2 agrees the following intention: UDC compression buffer state is stored in the UE Inactive AS context when the UE switches from RRC\_CONNECTED state to RRC\_INACTIVE state in RRC connection release procedure. Exact texts be further discussed.
* [021] RAN2 confirms the following UE behaviour (no specification change):

When no UDC related configuration is contained in the *RRCResume* message for a DRB and the UE has stored UplinkDataCompression-r17:

- the UE shall maintain its previous UDC configuration for the DRB

- the UDC compression buffer shall be reset since *drb-ContinueUDC* is not indicated by the network.

R2-2208971 Correction on UE behaviour about UDC in RRC resume procedure Huawei, HiSilicon, China Telecom, CATT CR Rel-17 38.331 17.1.0 3465 - F NR\_UDC-Core

* [021] Agreed

R2-2208205 Removal of UDC in the description of Data field Lenovo draftCR Rel-15 36.323 15.7.0 F LTE\_UDC-Core

* [021] Noted, proposals herein are not pursued

R2-2208587 Clarification on UDC packet Samsung draftCR Rel-17 38.323 17.1.0 F NR\_UDC-Core

* [021] Noted, proposals herein are not pursued

## 6.24 NR R17 Other

Includes items and topics without specific R2 Agenda Item. Includes LS in for R17 items not in a specific R2 Agenda Item.

### 6.24.1 RAN4 led Items

LS in

Offline [000]

R2-2206920 Reply LS on beam information of PUCCH SCell in PUCCH SCell activation procedure (R1-2205463; contact: Huawei) RAN1 LS in Rel-17 NR\_RRM\_enh2-Core To:RAN2, RAN4

Chair: Already Captured in Stage-3 last meeting, i.e. already covered. Whether to modify Stage-2 for consistency, e.g. the Pucch Group definition (for Rel-15, 16, 17) is being discussed. No further action.

* Noted [000]

R2-2206936 LS on release independent for FR1 HST RRM enhancement (R4-2206846; contact: CMCC) RAN4 LS in Rel-17 NR\_HST\_FR1\_enh To:RAN2

R2-2206937 LS on release independent for FR1 HST demodulation (R4-2207195; contact: CMCC) RAN4 LS in Rel-17 NR\_HST\_FR1\_enh To:RAN2

On Both LSes above, Chair: The LSes have already been implemented and are listed in the current TS 38.331 Annex C to allow early implementation of FR1 HST demodulation and RRM enhancement. No further action.

* Both Noted [000]

R2-2206955 LS on clarification of RACH prioritisation rules between LTE and NR-U (R4-2211170; contact: Ericsson) RAN4 LS in Rel-17 NR\_RRM\_enh2-Core To:RAN1 Cc:RAN2

Chair: RAN2 is CCed.

* Noted [000]

FR2 UL Gap

Offline

* [AT119-e][030][NR17] FR2 UL Gap MAC CR (Apple)

 Scope: Treat R2-2206959, R2-2208931

 Intended outcome: Brief Report, Agreed CR (if possible).

 Deadline: EOM

R2-2209083 Summary of [AT119-e][030][NR17] FR2 UL Gap MAC CR (Apple) Apple

* [030] Noted

R2-2206959 LS to RAN2 on UL gap in FR2 RF enhancement (R4-2211222; contact: Apple) RAN4 LS in Rel-17 NR\_RF\_FR2\_req\_enh2 To:RAN2 Cc:RAN1z

* [030] Noted

R2-2208931 Correction on FR2 UL gap Apple CR Rel-17 38.321 17.1.0 1399 - F NR\_RF\_FR2\_req\_enh2 LATE

Chair: This CR was provided at the meeting.

* [030] revised

R2-2209084 Correction on FR2 UL gap Apple CR Rel-17 38.321 17.1.0 1399 1 F NR\_RF\_FR2\_req\_enh2

[030] late comments Ericsson:

- As this CR was created during the meeting, we did not notice it until now.

- We think this CR set a bad precedence by moving the GAP control from the MAC spec to the RAN4 spec with a reference. RAN4 may later include anything in the referenced section without consulting RAN2, and thus causing future issues for interoperability, for example scheduler interaction, that RAN2 shall be in control of.

- Instead, the list in section 5.30 needs to be updated with the input from RAN4.

[030] Chair: the Ericsson comment is quite serious. We continue the discussion in a short Post email discussion

* Email approval
* [Post119-e][046][NR17] FR2 UL Gap MAC CR (Apple)

 Scope: Continue discussion from [AT119-e][030]. Take into account the late comment by ericsson. Allow wider participation

 Intended outcome: Agreed CR

 Deadline: Short

2TX-2TX Switching

Online first

R2-2208480 Discussion on supporting 2Tx-2Tx switching for Rel-17 capability reporting Huawei, HiSilicon, CMCC, China Unicom, CATT discussion Rel-17 NR\_RF\_FR1-Core

R2-2207333 Switching option capability for UL 2Tx-2Tx switching Qualcomm Incorporated, ZTE Corporation, Nokia, Nokia Shanghai Bell, OPPO, MediaTek Inc., Xiaomi Communications, Ericsson discussion Rel-17

* Both Noted

DISCUSSION on the two tdocs above

- CMCC support HW, think from R4 fallback to 1T-2T is supported, so easier to require

- China telecom support HW and think the UE should not report very different capabiltiy for 1T2T and 2T2T. would like the same options to be supported for R16 and R17. Otherwise network upgrade becomes illogical and expensive.

- ZTE think that we usually introduce new caps for new features, think good to allow the UE to support different cases, could be considered IOT bits.

- OPPO think flexibility is needed for UE vendors, don’t understand operator comments. Network anyway need to support both.

- QC think we need to fix ASN.1 as soon as possible, pre-requisites conditions etc can be fixed later.

* Introduce a new per-BC UE capability parameter for supported switching option(s) in 2T-2T UL Tx switching. Details can be discussed. Can consider now or at later time whether these are IoT bits or not (e.g. in the light of honouring R4 agreements).
* [AT119-e][034][NR17] 2TX-2TX UL switching UE caps (Qualcomm)

 Scope: Based on online agreements, revise and agree CRs.

 Intended outcome: Agreed CRs (report if needed)

 Deadline: EOM (offline only if possible).

GENERAL

* [034] (Confirmation of the agreement from online session) Introduce a new per-BC UE capability parameter for supported switching option(s) in 2T-2T UL Tx switching.
* [034] the UE indicating support of 2T-2T UL switching shall support at least one common switching option between 1T-2T and 2T-2T switching.

R2-2207334 Introduction of switching option UE capability for UL 2Tx-2Tx switching Qualcomm Incorporated, ZTE Corporation, Nokia, Nokia Shanghai Bell, OPPO, MediaTek Inc., Xiaomi Communications, Ericsson CR Rel-17 38.306 17.1.0 0767 - F NR\_RF\_FR1\_enh

R2-2209037 Introduction of switching option UE capability for UL 2Tx-2Tx switching Qualcomm Incorporated, ZTE Corporation, Nokia, Nokia Shanghai Bell, OPPO, MediaTek Inc., Xiaomi Communications, Ericsson CR Rel-17 38.306 17.1.0 0767 1 F NR\_RF\_FR1\_enh

* [034] Endorsed for merge with mega CRs

R2-2207335 Introduction of switching option UE capability for UL 2Tx-2Tx switching Qualcomm Incorporated, ZTE Corporation, Nokia, Nokia Shanghai Bell, OPPO, MediaTek Inc., Xiaomi Communications, Ericsson CR Rel-17 38.331 17.1.0 3248 - F NR\_RF\_FR1\_enh

R2-2209038 Introduction of switching option UE capability for UL 2Tx-2Tx switching Qualcomm Incorporated, ZTE Corporation, Nokia, Nokia Shanghai Bell, OPPO, MediaTek Inc., Xiaomi Communications, Ericsson CR Rel-17 38.331 17.1.0 3248 1 F NR\_RF\_FR1\_enh

* [034] Endorsed for merge with mega CRs

R2-2208611 Discussion on UE capability reporting for Rel-17 UL Tx switching enhancement CTSI discussion Rel-17 NR\_RF\_FR1\_enh-Core

* [034] Noted

R2-2209039 DRAFT LS on switching option capability for UL 2Tx-2Tx switching Qualcomm LS out Rel-17 NR\_RF\_FR1\_enh-Core To:RAN4

* [034] LS out is approved, Final version in R2-2209111

DC location report

offline

* [AT119-e][022][NR17] DC Location Report (vivo)

 Scope: Treat R2-2206951, R2-2207613, R2-2207135, R2-2207136, R2-2207138, R2-2207614, R2-2208370, R2-2208371, Determine agreeable parts. For the agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs (if any), LS out (if applicable)

 Deadline: Schedule 1

R2-2209001 Summary on [AT119-e][022][NR17] DC Location Report (vivo) vivo

* [022] RAN2’s understanding is that UE can only calculate default DC location for different CC/BWP combinations in a CC group based on the same frequency component. However this restriction can be confirmed by RAN4 finally.
* [022] If the frequency component type is *configuredCarrier* or *configuredBWP*, *offsetValue* is used for reporting the offset, further clarify that all requested CC combinations associated DC location offset are *offsetValue.* The detailed clarification can be discussed in phase 2.
* [022] The offset range is (-20000, 20000) both for FR1 and FR2.
* [022] The lowest SCS in the CC group is used as the offset granularity. This is to be confirmed by RAN4.
* [022] Only one DC location report scheme among R15/16/17 is used for a CA configuration and the network indicates which scheme is to be used.
* [022] CR should be updated to make the R17 DC location reporting scheme applies for 2CCs and single UL carrier within CA in addition to >2CC case.
* [022] RAN2 should clarify that DL-only FR2 frequency spectrum is not used to calculate the default DC location.
* [022] No need to limit the CC groups so that each group contains only one UL CC.
* [022] CR is needed to be updated to allow that a CC group only contains one CC.
* [022] UE shall report only one CC group/DC location for an intra-band CC combination with one active uplink carrier in case the default DC location is derived from active CC/BWP.
* [022] *shift7dot5kHz* is associated with each *offsetValue.*
* [022] RAN4 UE capability 17-5 can report default DC location also for single UL CC case and this should be clarified for 306 CR.
* [022] RAN2 should send an LS to RAN4 to inform the following:

- RAN2’s understanding is that UE can only calculate default DC location for different CC/BWP combinations in a CC group based on same frequency components;

- The lowest SCS in the CC group is used as the offset granularity;

- UE supporting RAN4 UE capability 17-5 can report default DC location also for single UL CC case.

* [022] noted, agreements reflected below

R2-2206951 LS on DC location for intra-band CA (R4-2210782; contact: vivo) RAN4 LS in Rel-17 NR\_RF\_FR2\_req\_enh2 To:RAN2

* [022] noted

R2-2207613 Remaining issues on DC location report for Rel-17 vivo discussion Rel-17 NR\_RF\_FR2\_req\_enh2-Core

R2-2207135 Discussion on DC location for more than 2 UL CCs OPPO discussion Rel-17 NR\_RF\_FR2\_req\_enh2-Core

R2-2208370 Discussion on the update to endorsed CRs for DC location report for more than 2CC Huawei, HiSilicon discussion Rel-17 NR\_RF\_FR2\_req\_enh2

* [022] 3 discussion tdocs noted

R2-2207136 CR on UE capability for DC location for more than 2 UL CCs OPPO CR Rel-17 38.306 17.1.0 0759 - B NR\_RF\_FR2\_req\_enh2-Core

R2-2207138 CR on DC location for more than 2 UL CCs OPPO CR Rel-17 38.331 17.1.0 3219 - B NR\_RF\_FR2\_req\_enh2-Core

* [022] Both revised

R2-2208968 UE capability for extended DC location OPPO CR Rel-17 38.306 17.1.0 0759 1 B NR\_RF\_FR2\_req\_enh2-Core

R2-2208981 CR on DC location for more than 2 UL CCs OPPO CR Rel-17 38.331 17.1.0 3219 1 B NR\_RF\_FR2\_req\_enh2-Core

* [022] Both endorsed for merge with Mega CRs

R2-2208371 Introduction of DC location reporting for more than 2CCs Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3097 2 B NR\_RF\_FR2\_req\_enh2 R2-2206650

* [022] revised

R2-2209080 Introduction of DC location reporting for more than 2CCs Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3097 3 B NR\_RF\_FR2\_req\_enh2 R2-2208371

* [022] agreed

R2-2207614 LS to RAN4 on DC location vivo LS out Rel-17 NR\_RF\_FR2\_req\_enh2-Core To:RAN4

* [022] revised

R2-2209002 LS to RAN4 on DC location RAN2 LS out Rel-17 NR\_RF\_FR2\_req\_enh2-Core To:RAN4

* [022] LS out is approved (this is the final version)

FR2 BW Class

* [AT119-e][023][NR17] FR2 BW classes (Nokia)

 Scope: Treat R2-2208510, R2-2208511, R2-2207974, R2-2207975, R2-2207973,

 Determine agreeable parts. For the agreeable parts, agree CRs.

 Intended outcome: Report, Agreed CRs (if any), LS out (if applicable)

 Deadline: Schedule 1

R2-2209082 Report of [AT119-e][023][NR17] FR2 BW classes (Nokia) Nokia, Nokia Shanghai Bell

* [023] Noted
* [023] RAN2 agrees there is no backward compatibility issue for network in introducing new FR2 FBG5 BW classes in the CA-BandwidthClassNR field (proposed in CR R2-2208511).
* [023] RAN2 waits for further progress of RAN4 on FR2 BW classes R, S, T, U (i.e., if they will be deleted from FBG2) before deciding to discard the signalling agreed in the baseline CRs in R2-2207974 and [R2-2207975](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CTSGR2_119-e%5CDocs%5CR2-2207975.zip)

R2-2208510 Discussion on FR2 new bandwidth classes Huawei, HiSilicon discussion Rel-17 NR\_RF\_FR2\_req\_enh2-Core

* [023] Noted

R2-2208511 Introduction of FR2 FBG5 CA BW classes Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3432 - B NR\_RF\_FR2\_req\_enh2-Core

R2-2207974 Introduction of FR2 FBG2 CA BW classes Nokia, Nokia Shanghai Bell, Huawei, HiSilicon, Ericsson, ZTE Corporation, Sanechips, Qualcomm, Xiaomi Communications CR Rel-17 38.331 17.1.0 2867 4 B NR\_RF\_FR2\_req\_enh2-Core R2-2204851

*Moved from 6.0.2*

R2-2207975 Introduction of FR2 FBG2 CA BW classes Nokia, Nokia Shanghai Bell, Huawei, HiSilicon, Ericsson, ZTE Corporation, Sanechips, Qualcomm, Xiaomi Communications CR Rel-17 38.306 17.1.0 0678 3 B NR\_RF\_FR2\_req\_enh2-Core R2-2204850

*Moved from 6.0.2*

* [023] All CRs are postponed

R2-2207973 Reply LS on release independence aspects of newly introduced FR2 CA BW Classes and CBM/IBM UE capability Nokia, Nokia Shanghai Bell LS out Rel-17 NR\_RF\_FR2\_req\_enh2-Core R2-2204854 To:RAN4

*Moved from 6.0.2*

* [023] Noted, not needed

CRS Interference Mitigation

LS in received W2 Thu. Attempt to arrive at an agreeable CR offline.

* [Post119-e][041][NR17] CRS-IM network assistance signalling (Qualcomm)

 Scope: Treat R2-2209050. Attempt to converge to an agreeable CR (Rapporteur has promised to provide a proposal).

 Intended outcome: Report (to document the discussion and in case not possible to converge), Note that technical proposals will not be agreed individually. Agreed CR

 Deadline: Short

R2-2209054 LS on CRS-IM network assistance signalling (R4-2214362; contact: Qualcomm) RAN4 LS in Rel-17 NR\_demod\_enh2-Perf To:RAN2

[Post119-e][041] Chair: In addition to CR approval the following texual Comment is captured:

- [Post119-e][041] Rap No UE behaviour associated with the following text in RAN4 LS (related to the case LTE-NeighCellsCRS-AssistInfoList contains multiple list entries) is captured in the agreed CRs.”If both cell ID and v-shift information are not included in any of the entries, UE is not expected to make use of the network assistance signalling provided in that entry.”

- [Post119-e][041] Rap: There are different interpretations among companies in RAN2. It can be discussed and clarified in RAN4 based on company contributions.

Editorial

Not formally treated. Handled by RRC TS rapporteur

R2-2207856 Correction for Rel-17 CRS interference mitigation Sharp CR Rel-17 38.331 17.1.0 3327 - F NR\_demod\_enh2-Core

### 6.24.2 RAN1 led Items

### 6.24.3 Other

R2-2208133 Correction to MINT - applicableDisasterInfoList Ericsson CR Rel-17 38.331 17.1.0 3359 - F TEI17

Treated offline in discussion [013] RRC I (Ericsson)

* [013] revised

R2-2208982 Correction to MINT - applicableDisasterInfoList Ericsson CR Rel-17 38.331 17.1.0 3359 1 F TEI17

- [013] agreeable but revised for an editorial issue

* [013] Revised

R2-2209136 Correction to MINT - applicableDisasterInfoList Ericsson CR Rel-17 38.331 17.1.0 3359 2 F TEI17

* [013] Agreed

# 7 Rel-17 EUTRA Work Items

## 7.1 Common

(NB\_IOTenh4\_LTE\_eMTC6-Core; leading WG: RAN1; REL-17; WID: RP-211340)

(UPIP\_EN-DC\_UE; leading WG: RAN3; REL-17; WID: RP‑213669)

(LTE TEI17)

No documents should be submitted to 7.1. Please submit to 7.1.X

### 7.1.1 Organizational and Stage-2

General LSs and documents for which there is no RAN WI.

Rapporteurs may provide baseline correction CRs containing smaller corrections, text clarifications etc - please contact the Rapporteur before providing contributions on those aspects.

R2-2206972 LS on updated Rel-17 RAN1 UE features list for LTE (R1-2205612; contact: NTT DOCOMO, AT&T) RAN1 LS in Rel-17 NB\_IOTenh4\_LTE\_eMTC6, LTE\_NBIOT\_eMTC\_NTN, LTE\_terr\_bcast\_bands\_part1, NR\_SL\_enh To:RAN2 Cc:RAN4

*(moved from 7.2.5)*

### 7.1.2 Control Plane Corrections

R2-2207492 DRB release LG Electronics Inc. discussion Rel-17 TEI17

R2-2207493 36.331 CR on DRB release LG Electronics Inc. CR Rel-17 36.331 17.1.0 4847 - F TEI17

R2-2208303 Discussion on introducing the value infinity for the hysteresis timer Ericsson discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

R2-2208304 Introduction of value infinity for coverage based paging carrier hysteresis timer Ericsson CR Rel-17 36.331 17.1.0 4857 - F NB\_IOTenh4\_LTE\_eMTC6-Core

R2-2208305 Introduction of value infinity for coverage based paging carrier hysteresis timer Ericsson CR Rel-17 36.304 17.1.0 0852 - F NB\_IOTenh4\_LTE\_eMTC6-Core

R2-2208597 36331\_(R17)\_Correction on npusch-MCS field description ZTE Corporation, Sanechips CR Rel-17 36.331 17.1.0 4866 - F NB\_IOTenh4\_LTE\_eMTC6-Core

### 7.1.3 User Plane Corrections

## 7.2 NB-IoT and eMTC support for NTN

Tdoc Limitation: 5 tdocs

### 7.2.1 Organizational

LSs, rapporteur inputs and other organizational documents. CR Rapporteurs may provide baseline correction CRs containing smaller corrections, text clarifications, etc - please contact the CR rapporteurs before providing contributions on those aspects.

R2-2206933 Reply LS on open issues for NB-IoT and eMTC support for NTN (R3-224007; contact: ZTE) RAN3 LS in Rel-17 LTE\_NBIOT\_eMTC\_NTN To:RAN2, SA2

R2-2206938 LS reply on UE capability for 16QAM for NB-IoT (R4-2210571; contact: Ericsson) RAN4 LS in Rel-16 NB\_IOTenh4\_LTE\_eMTC6-Core To:RAN1 Cc:RAN2

R2-2206961 Reply LS on Emergency services and UE rejected with "PLMN not allowed to operate in the country of the UE’s location" (S1-221290; contact: Apple) SA1 LS in Rel-17 5GSAT\_ARCH-CT To:CT1, RAN2 Cc:SA2, SA3LI

R2-2207153 Miscellaneous corrections to TS 36.331 for IoT NTN Huawei, HiSilicon CR Rel-17 36.331 17.1.0 4832 - F LTE\_NBIOT\_eMTC\_NTN

### 7.2.2 User Plane

Impacts to 36.321, 36.322, 36.323, 37.324

R2-2207056 Discussion on mac-ContentionResolutionTimer in IoT NTN OPPO discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

R2-2207064 Correction on the definition of deltaPDCCH in (UL) HARQ RTT Timer for NB-IoT NTN OPPO CR Rel-17 36.321 17.1.0 1542 - F LTE\_NBIOT\_eMTC\_NTN

R2-2207349 Clarification on PDCCH-based HARQ feedback Qualcomm Incorporated CR Rel-17 36.321 17.1.0 1543 - F LTE\_NBIOT\_eMTC\_NTN

R2-2207351 Clarification on the expiry of the contention resolution timer. Qualcomm Incorporated CR Rel-17 36.321 17.1.0 1544 - F LTE\_NBIOT\_eMTC\_NTN

R2-2207599 Discussion on the triggering of TA reporting Huawei, HiSilicon discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

R2-2207600 Discussion on MSG3 retransmission Huawei, HiSilicon discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

R2-2207817 36321CR\_Corrections for RTToffset in HARQ RTT timers ZTE Corporation, Sanechips CR Rel-17 36.321 17.1.0 1545 - F LTE\_NBIOT\_eMTC\_NTN-Core

R2-2207824 Discussion on contention resolution timer in IoT NTN ZTE Corporation, Sanechips discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN-Core

R2-2208387 Correction on TA Reporting Triggering Condition for IoT NTN in TS 36.321 CATT CR Rel-17 36.321 17.1.0 1546 - F LTE\_NBIOT\_eMTC\_NTN

R2-2208563 Issue on false claiming of contention resolution failure for IoT NTN Nokia, Nokia Shanghai Bell discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

R2-2208664 R17 IoT NTN User Plane issues Ericsson discussion Rel-17

### 7.2.3 RRC

Impacts to 36.331

R2-2207057 Correction to RRC-MAC interaction on UL synchronisation in IoT NTN OPPO CR Rel-17 36.331 17.1.0 4827 - F LTE\_NBIOT\_eMTC\_NTN

R2-2207059 Discussion on segmented precompensation gap configuration in IoT NTN OPPO discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

R2-2207150 Discussion on neighbour cell ephemeris Huawei, HiSilicon discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

R2-2207151 Correction to 36.331 on neighbour cell ephemeris Huawei, HiSilicon CR Rel-17 36.331 17.1.0 4831 - F LTE\_NBIOT\_eMTC\_NTN

R2-2207152 Discussion on parameters for discontinuous coverage Huawei, HiSilicon discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

R2-2207308 Add TX gap parameter and capability for IoT NTN MediaTek Inc. CR Rel-17 36.331 17.1.0 4833 - F LTE\_NBIOT\_eMTC\_NTN-Core

R2-2207309 Correction on IoT NTN ASN.1 MediaTek Inc. CR Rel-17 36.331 17.1.0 4834 - F LTE\_NBIOT\_eMTC\_NTN-Core

R2-2207310 Specify ECI to the reference frame of orbital parameters MediaTek Inc. CR Rel-17 36.331 17.1.0 4835 - F LTE\_NBIOT\_eMTC\_NTN-Core

R2-2207311 Trigger RLF when SIB31 cannot be acquired during T318 MediaTek Inc. CR Rel-17 36.331 17.1.0 4836 - F LTE\_NBIOT\_eMTC\_NTN-Core

R2-2207350 Indication of Koffset update in SIB31 Qualcomm Incorporated CR Rel-17 36.331 17.1.0 4840 - F LTE\_NBIOT\_eMTC\_NTN

R2-2207353 RRC Release with redirection to TN Qualcomm Incorporated CR Rel-17 36.331 17.1.0 4842 - F LTE\_NBIOT\_eMTC\_NTN

R2-2207789 Discussion on footprint parameters in SIB32 ZTE Corporation, Sanechips discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN-Core

R2-2207790 Discussion on epochTime in SIB31 ZTE Corporation, Sanechips discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN-Core

R2-2207791 36331CR\_RRC miscellaneous corrections ZTE Corporation, Sanechips CR Rel-17 36.331 17.1.0 4851 - F LTE\_NBIOT\_eMTC\_NTN-Core

R2-2208038 Miscellanious corrections to RRC for for IoT-NTN Nokia Solutions & Networks (I) CR Rel-18 38.331 17.1.0 3345 - F LTE\_NBIOT\_eMTC\_NTN Withdrawn

R2-2208043 RRC changes for Gap configuration for uplink segemented tansmission in IoT-NTN Nokia, Nokia SHanghai Bell CR Rel-18 36.331 17.1.0 4852 - B LTE\_NBIOT\_eMTC\_NTN

=> Revised in R2-2208682

R2-2208682 RRC changes for Gap configuration for uplink segemented tansmission in IoT-NTN Nokia, Nokia SHanghai Bell CR Rel-18 36.331 17.1.0 4852 1 B LTE\_NBIOT\_eMTC\_NTN

=> Revised in R2-2208684

R2-2208684 RRC changes for Gap configuration for uplink segemented tansmission in IoT-NTN Nokia, Nokia SHanghai Bell CR Rel-17 36.331 17.1.0 4852 2 B LTE\_NBIOT\_eMTC\_NTN

R2-2208129 Miscellanious Corrections to RRC for IoT-NTN Nokia, Nokia Shanghai Bell CR Rel-17 36.331 17.1.0 4853 - F LTE\_NBIOT\_eMTC\_NTN

R2-2208294 Correction to coarseLocationInfo field description for IoT NTN Eutelsat S.A. CR Rel-17 36.331 17.1.0 4856 - F LTE\_NBIOT\_eMTC\_NTN-Core

R2-2208564 Issue on GNSS measurement during eMTC handover Nokia, Nokia Shanghai Bell discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

R2-2208574 correction on coarselocationreq Xiaomi, Thales CR Rel-17 36.331 17.1.0 4863 - F LTE\_NBIOT\_eMTC\_NTN

R2-2208665 R17 IoT NTN RRC Corrections Ericsson discussion Rel-17

R2-2208681 NTN Configuration at CHO Sequans Communications discussion Rel-17 36.331 LTE\_NBIOT\_eMTC\_NTN-Core

### 7.2.4 Idle Inactive mode

Impacts to 36.304

R2-2208138 Correction on Measurement rules for cell re-selection for IoT NTN Samsung R&D Institute UK CR Rel-17 36.304 17.1.0 0851 - F LTE\_NBIOT\_eMTC\_NTN

R2-2208669 R17 IoT NTN Idle mode issues Ericsson discussion Rel-17

### 7.2.5 UE capabilities

R2-2207058 Discussion on UE capability on segmented precompensation gap in IoT NTN OPPO discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

R2-2207307 Add TX gap capability for IoT NTN MediaTek Inc. CR Rel-17 36.306 17.1.0 1854 - F LTE\_NBIOT\_eMTC\_NTN-Core

R2-2207352 Reporting the support of TN bands to NTN Qualcomm Incorporated CR Rel-17 36.331 17.1.0 4841 - F LTE\_NBIOT\_eMTC\_NTN

R2-2208044 New UE capability for Pre-compensation-gap for IoT-NTN Nokia, Nokia Shanghai Bell CR Rel-18 36.306 17.1.0 1855 - B LTE\_NBIOT\_eMTC\_NTN

R2-2208666 R17 IoT NTN UE Capabilities corrections Ericsson discussion Rel-17

### 7.2.6 Other

R2-2208667 R17 IoT NTN stage 2 corrections Ericsson discussion Rel-17

# 8 Rel-18

## 8.1 NR network-controlled repeaters

(FS\_NR\_NetConRepeater; leading WG: RAN1; REL-18; WID: RP-221229)

Time budget: 0.5 TU

Tdoc Limitation: 1 tdocs

### 8.1.1 Organizational

Including LSs and any rapporteur inputs.

R2-2208108 Work plan for NR network-controlled repeaters ZTE Corporation (Rapporteur) Work Plan Rel-18 FS\_NR\_netcon\_repeater

R2-2208109 TR 38.867 on network-controlled repeaters management ZTE Corporation (Rapporteur) draft TR Rel-18 38.867 0.1.0 FS\_NR\_netcon\_repeater

### 8.1.2 General

Including Identification and authorization of network-controlled repeaters.

R2-2207123 Identification and Authorization of Network-Controlled Repeater Intel Corporation discussion Rel-18 FS\_NR\_netcon\_repeater

R2-2207205 Identification and authorization of Network Controlled Repeater Nokia, Nokia Shanghai Bell discussion Rel-18

R2-2207285 RAN2 Aspects of Network-Controlled Repeater Qualcomm Inc. discussion Rel-18 FS\_NR\_netcon\_repeater

R2-2207291 Overview of network-controlled repeaters NEC Telecom MODUS Ltd. discussion

R2-2207413 Discussion on functionality for NCR-MT Fujitsu discussion Rel-18 FS\_NR\_netcon\_repeater

R2-2207459 Discussion on identification and authorization of NCR Apple discussion Rel-18 DUMMY Late

R2-2207485 General consideration on NCR management Huawei, HiSilicon discussion Rel-18 FS\_NR\_netcon\_repeater

R2-2207517 Identification and Authorization of Network-controlled Repeater CATT discussion Rel-18 FS\_NR\_netcon\_repeater

R2-2207691 Network-controlled repeaters - key issues Samsung R&D Institute UK discussion

R2-2207717 Discussion on identification and authorization for network-controlled repeaters Lenovo discussion Rel-18

R2-2207825 Considerations on NCR authorization and fwd link config Sony discussion Rel-18 DUMMY Late

R2-2208034 Identification and authorization of NCRs: capabilities and attributes management Philips International B.V. discussion Rel-18 FS\_NR\_netcon\_repeater

R2-2208110 Considertion on NCR identification and authorization ZTE Corporation, Sanechips discussion Rel-18 FS\_NR\_netcon\_repeater

R2-2208198 Discussion on RAN2 topics for NCR Ericsson discussion Rel-18 FS\_NR\_netcon\_repeater

R2-2208293 Initial consideration on Network-controlled repeaters Kyocera discussion Rel-18

R2-2208390 Identification and authorization of network-controlled repeaters MediaTek Beijing Inc. discussion Rel-18

R2-2208416 Multi-frequency support to enable control links for NR network-controlled repeaters AT&T discussion Rel-18

R2-2208447 Discussion on the network-controlled repeater management CMCC discussion Rel-18 FS\_NR\_netcon\_repeater

R2-2208458 Discussion on NCR Related Procedures vivo discussion

R2-2208628 Discussion on identification and authorization of Network-controlled Repeaters China Telecom discussion

R2-2208658 Initial discussion on Network Control Repeater Rakuten Mobile, Inc discussion Rel-18

## 8.2 Expanded and improved NR positioning

(FS\_NR\_pos\_enh2; leading WG: RAN1; REL-18; WID: RP-221814)

Time budget: 1.5 TU

Tdoc Limitation: 3 tdocs

### 8.2.1 Organizational

Including incoming LSs and rapporteur inputs.

R2-2207105 Summary of pre-discussion on Rel-18 expanded and improved NR positioning CATT discussion Rel-18 FS\_NR\_pos\_enh2

R2-2207387 RAN1 agreements on Expanded and improved NR positioning Intel Corporation discussion Rel-18 FS\_NR\_pos\_enh2

R2-2207737 Work Plan for Study Item on Expanded and Improved NR Positioning CATT, Intel Corporation, Ericsson Work Plan Rel-18 FS\_NR\_pos\_enh2

R2-2208080 SL positioning Ericsson discussion Rel-18

### 8.2.2 Sidelink positioning

Study of positioning architecture and signalling procedures (e.g. configuration, measurement reporting, etc) to enable sidelink positioning covering both UE based and network based positioning. Considering relative positioning, ranging and absolute positioning.

R2-2207081 Discussion on sidelink positioning vivo discussion Rel-18 FS\_NR\_pos\_enh2

R2-2207090 Discussion of sidelink positioning OPPO discussion Rel-17 FS\_NR\_pos\_enh2

R2-2207106 SL Positioning Architecture and Protocol Stack CATT discussion Rel-18 FS\_NR\_pos\_enh2

R2-2207229 Discussion of sidelink positioning procedures Nokia Germany agenda

R2-2207286 Principles for sidelink positioning MediaTek Inc. discussion Rel-18

R2-2207388 Support of sidelink positioning Intel Corporation discussion Rel-18 FS\_NR\_pos\_enh2

R2-2207435 On Sidelink Positioning Architecture Apple discussion Rel-18 FS\_NR\_pos\_enh2

R2-2207486 Discussion on Sidelink Positioning InterDigital, Inc. discussion Rel-18 FS\_NR\_pos\_enh2

R2-2207586 Discussion on sidelink positioning ZTE, Sanechips discussion Rel-18 NR\_pos\_enh-Core

R2-2207684 Discussion on potential solutions for SL positioning Spreadtrum Communications discussion Rel-18

R2-2207828 Considerations on sidelink positioning Sony discussion Rel-18 FS\_NR\_pos\_enh2

R2-2207865 On SL Positioning Architecture and Procedures Lenovo discussion Rel-18

R2-2207868 Discussion on sidelink positioning Huawei, HiSilicon discussion Rel-18 FS\_NR\_pos\_enh2

R2-2208126 Study of Sidelink Positioning Architecture, Signaling and Procedures Qualcomm Incorporated discussion

R2-2208253 Protocol considerations for sidelink positioning Philips International B.V. discussion Rel-18 FS\_NR\_pos\_enh2

R2-2208301 Discussion on functions of LMF in SL positioning Samsung discussion Rel-18 FS\_NR\_pos\_enh2

R2-2208320 Discussion on out-of-coverage sidelink positioning Samsung R&D Institute UK discussion

R2-2208453 Initial considerations on Sidelink positioning CMCC discussion Rel-18 FS\_NR\_pos\_enh2

R2-2208582 Discussion on SL positioning Xiaomi discussion Rel-18

### 8.2.3 RAT-dependent integrity

Study methodologies, procedures, signalling, etc for determination of positioning integrity for both UE-based and UE-assisted positioning. Focus on reuse of concepts and principles being developed for RAT-Independent GNSS positioning integrity, where possible. Identification of error sources may require input from RAN1.

R2-2207082 Discussion on RAT-dependent integrity vivo discussion Rel-18 FS\_NR\_pos\_enh2

R2-2207107 Discussion on RAT dependent integrity CATT discussion Rel-18 FS\_NR\_pos\_enh2

R2-2207389 Support of RAT dependent integrity Intel Corporation discussion Rel-18 FS\_NR\_pos\_enh2

R2-2207487 Discussion on RAT-dependent Integrity InterDigital, Inc. discussion Rel-18 FS\_NR\_pos\_enh2

R2-2207585 Discussion on RAT-dependent methods positioning integrity ZTE, Sanechips discussion Rel-18 NR\_pos\_enh-Core

R2-2207685 Discussion on solutions for integrity of RAT-dependent positioning techniques Spreadtrum Communications discussion Rel-18

R2-2207702 Discussion on RAT-dependent positioning integrity Lenovo discussion Rel-18

R2-2207829 Considerations on solution for integrity of RAT dependent positioning Sony discussion Rel-18 FS\_NR\_pos\_enh2

R2-2207869 Discussion on RAT-dependent integrity Huawei, HiSilicon discussion Rel-18 FS\_NR\_pos\_enh2

R2-2207911 Discussion on RAT-dependent positioning integrity Xiaomi discussion

R2-2208079 RAT-dependent integrity Ericsson discussion Rel-18

R2-2208127 Integrity of NR Positioning Technologies Qualcomm Incorporated discussion

R2-2208318 Discussion on integrity of RAT dependent positioning techniques Samsung R&D Institute UK discussion

R2-2208322 Discussion of RAT-dependent positioning integrity Nokia, Nokia Shanghai Bell discussion Rel-18 FS\_NR\_pos\_enh2

### 8.2.4 LPHAP

Study the requirements on LPHAP as developed by SA1 and evaluate whether existing RAN functionality can support these power consumption and positioning requirements. Based on the evaluation, and, if found beneficial, study potential enhancements to help address any limitations.

R2-2207083 Discussion on LPHAP vivo discussion Rel-18 FS\_NR\_pos\_enh2

R2-2207089 Consideration on LPHAP OPPO discussion Rel-17 FS\_NR\_pos\_enh2

R2-2207111 Discussion on LPHAP CATT discussion Rel-18 FS\_NR\_pos\_enh2

R2-2207390 Support of LPHAP Intel Corporation discussion Rel-18 FS\_NR\_pos\_enh2

R2-2207436 On LPHAP Apple discussion Rel-18 FS\_NR\_pos\_enh2

R2-2207488 Discussion on LPHAP InterDigital, Inc. discussion Rel-18 FS\_NR\_pos\_enh2

R2-2207584 Discussion on LPHAP ZTE, Sanechips discussion Rel-18 NR\_pos\_enh-Core

R2-2207703 Discussion on low power high accuracy positioning Lenovo discussion Rel-18

R2-2207830 Considerations on solution for Low Power High Accuracy Positioning Sony discussion Rel-18 FS\_NR\_pos\_enh2

R2-2207867 Discussion on the LPHAP Huawei, HiSilicon discussion Rel-18 FS\_NR\_pos\_enh2 Revised

R2-2207912 Discussion on LPHA positioning Xiaomi discussion

R2-2208078 Discussion on Low Power High Accuracy Positioning Ericsson discussion Rel-18

R2-2208128 Limitations of RRC\_INACTIVE positioning for LPHAP Qualcomm Incorporated discussion

R2-2208180 Use case and area of focus for LPHAP study Nokia, Nokia Shanghai Bell discussion Rel-18 FS\_NR\_pos\_enh2

R2-2208454 Initial considerations on LPHAP CMCC discussion Rel-18 FS\_NR\_pos\_enh2

R2-2208626 Discussion on the LPHAP Huawei, HiSilicon, Deutsche Telekom discussion Rel-18 FS\_NR\_pos\_enh2 R2-2207867

## 8.3 Network energy savings for NR

(xx-Core; leading WG: RAN1; REL-18; WID: RP-213554)

Time budget: 1 TU

Tdoc Limitation: 2 tdocs

### 8.3.1 Organizational

*LS, workplan, etc*

R2-2208339 Work plan for NR network energy savings Huawei Work Plan Rel-18 FS\_Netw\_Energy\_NR

R2-2208340 TR 38.864 skeleton for study on network energy savings for NR Huawei discussion Rel-18 FS\_Netw\_Energy\_NR

R2-2208341 General consideration of RAN2 study Huawei discussion Rel-18 FS\_Netw\_Energy\_NR

### 8.3.2 gNB and UE supporting techniques

*Contributions should focus on how to achieve more efficient operation dynamically and/or semi-statically and finer granularity adaptation of transmissions and/or receptions in one or more of network energy saving techniques in time, frequency, spatial, and power domains, with potential support/feedback from UE, and potential UE assistance information*

R2-2207037 Discussion on NW energy saving KDDI Corporation discussion

R2-2207115 Efficient operation of adaptation for network energy saving Intel Corporation discussion Rel-18 FS\_Netw\_Energy\_NR

R2-2207116 Additional UE assistance information and UE feedback Intel Corporation discussion Rel-18 FS\_Netw\_Energy\_NR

R2-2207246 Time domain NES techniques InterDigital discussion Rel-18 FS\_Netw\_Energy\_NR

R2-2207247 Frequency domain and UE assistance NES techniques InterDigital discussion Rel-18 FS\_Netw\_Energy\_NR

R2-2207292 Finer granularity configuration for NES NEC Telecom MODUS Ltd. discussion

R2-2207293 Assistance information to support choice of NES configuration NEC Telecom MODUS Ltd. discussion

R2-2207406 Consideration on network energy saving Fujitsu discussion Rel-18 FS\_Netw\_Energy\_NR

R2-2207414 Efficient PCell and SCell handling for network energy saving Fujitsu discussion Rel-18 FS\_Netw\_Energy\_NR

R2-2207423 Initial discussion on RAN2 work of Network energy saving Apple discussion Rel-18 FS\_Netw\_Energy\_NR

R2-2207424 On-demand measurement for network energy saving Apple discussion Rel-18 FS\_Netw\_Energy\_NR

R2-2207511 Network energy savings: issues for investigation in RAN2 CATT discussion Rel-18 FS\_Netw\_Energy\_NR

R2-2207512 Consideration on UE Assistance Information CATT discussion Rel-18 FS\_Netw\_Energy\_NR

R2-2207545 NW energy saving in CONNECTED Nokia, Nokia Shanghai Bell discussion Rel-18 FS\_Netw\_Energy\_NR

R2-2207546 NW energy saving in IDLE Nokia, Nokia Shanghai Bell discussion Rel-18 FS\_Netw\_Energy\_NR

R2-2207786 discussions on time domain techniques for network energy saving vivo discussion Rel-18

R2-2207787 discussion on frequency domain and UE-assisted Network Energy saving techniques vivo discussion Rel-18

R2-2207799 Discussion on network energy savings OPPO discussion Rel-18 FS\_Netw\_Energy\_NR

R2-2207800 Discussion on the UE assistance information OPPO discussion Rel-18 FS\_Netw\_Energy\_NR

R2-2207919 Discussion on supporting of network energy savings for NR Lenovo discussion Rel-18 FS\_Netw\_Energy\_NR

R2-2207920 Discussion on the state transition in NES Lenovo discussion Rel-18 FS\_Netw\_Energy\_NR

R2-2207960 Alignment of UE and Network Energy Saving Fraunhofer IIS, Fraunhofer HHI discussion Rel-18

R2-2208026 Assistance information from the UE for NW energy savings Ericsson discussion

R2-2208031 Miscellaneous mechanisms for network energy savings Ericsson discussion

R2-2208120 Network Energy Savings Techniques Qualcomm Incorporated discussion Rel-18

R2-2208233 gNB operation for NES ETRI discussion

R2-2208297 Network Energy savings - UE grouping for efficient signaling Rakuten Mobile, Inc discussion Rel-18

R2-2208330 Supporting access via assistant cell for network energy saving ZTE corporation, Sanechips discussion Rel-18

R2-2208331 Techniques in various domains and UE assistance information for network energy saving ZTE corporation, Sanechips discussion Rel-18

R2-2208342 Discussion on network energy saving techniques for single carrier Huawei, HiSilicon, Deutsche Telekom discussion Rel-18 FS\_Netw\_Energy\_NR

R2-2208343 Discussion on network energy saving techniques for multi-carrier case Huawei, HiSilicon, China Unicom, Deutsche Telekom discussion Rel-18 FS\_Netw\_Energy\_NR

R2-2208431 Discussion on the technical directions for network energy saving CMCC discussion Rel-18

R2-2208432 Analysis on power consumption in base station CMCC discussion Rel-18

R2-2208573 Energy saving on system information transmission Xiaomi discussion Rel-18 FS\_Netw\_Energy\_NR

R2-2208592 Feedback and Assistance Information for NES Samsung discussion Rel-18

R2-2208593 Network Energy Saving (NES) Techniques Samsung discussion Rel-18

R2-2208606 Coexistence considerations in network energy saving MediaTek Inc. discussion Rel-18 FS\_Netw\_Energy\_NR

## 8.4 Further NR mobility enhancements

(NR\_Mob\_enh2-Core; leading WG: RAN2; REL-18; WID: RP-221799)

Time budget: 2 TU

Tdoc Limitation: 4 tdocs

Focus to consolidate the performance aspects to improve and the cases to address.

### 8.4.1 Organizational

Including LSs and any rapporteur inputs (e.g. work plan). Including input on work splits and tasks for other groups (LS outs), which is expected dependent also on other progress (treated last).

R2-2206981 RAN2 Work Plan for Rel-18 Further NR Mobility Enhancements WI MediaTek Inc., Apple Work Plan

- Xiaomi think we need to do RRC modelling based also on inter DU

- Chair: too many comments, go offline

* Noted (need improvement)

### 8.4.2 L1 L2 Mobility

#### 8.4.2.1 Target Performance Enhancements

This part has high priority during the first meeting. Establish a latency model and determine which parts pf latency / stept are expected to be enhanced, Focus first on intra-freq-intra-DU, then establish understanding as to which enhancements that can be applicable for inter-DU, inter-freq scenarios etc. Can discuss scenario applicability in general. Can discuss also other performance metrics than latency if applicable.

R2-2206982 Target Performance Enhancements for L1L2-based Inter-cell Mobility MediaTek Inc. discussion

DISCUSSION

- LG wonder if MAC reset doesn’t have impact at these very high ping-pong rates. Think the negative effects may outweigh positive ones. Think also that it will cause lots of signalling. Think DL measurement latency is not taken into account. CMCC agrees with LG.

- Nokia wonder why the pingpong rate is so high / time of stay is so low, how is TTT applied in this. MTK clarifies that TTT is applied as for L3 measurement. MTK think the main reason for pingpong is the higher frequency. MTK also ack that additional measures can be taken to reduce pingpong rate.

- VDF think security aspects need to be considered.

- Observation: L1L2 mobility could be expected to help in several ways, robustness, etc. and make possible high HO rates.

- FW think the legacy issue of ping pong was that the system couldn’t support short tos. Think indeed L1L2 mobility give the tools to handle this, may need to redefine what is ping pong. Think inter-DU is more complex so we may need to spend more time on it. Support multiple candidates.

P2456

- Apple are supportive of this but think RRC processing may need to be taken into account as there are some cases when the UE has not preprared 100% beforehand

- CATT agrees, but think for intra DU can avoid L2 reset.

- Vivo think that TRS tracking after HO and CSI RS measurement should also be modelled / included. Samsung agrees.

- Xiaomi think we should also consider other aspects, if we have frequent L2 reset this will be an issue. We need to continue L2 whenever we can.

- HW think measurement latency is also important and has a huge impact.

* Assumption: HO interruption time for L1/L2-based inter-cell mobility is the time from UE receives the cell switch command to UE performs the first DL/UL reception/transmission on the indicated beam of the target cell. FFS if TRS tracking after HO and CSI RS measurement should also be included, i.e. the time to use a high-performance beam (can be clarified further).
* Assumption: To reduce HO interruption time, investigate e.g. solutions to reduce the time for UE reconfiguration (already in the WID), downlink and uplink synchronization after handover decision (other parts of dynamic switch not precluded).
* Confirm to Support L1/L2-based inter-cell mobility for inter-DU scenario (as well as intra-DU scenarios).
* The design for intra-DU and inter-DU L1/L2-based mobility should share as much commonality as reasonable. FFS which aspects need to be different.
* R2 assumes that L2 is continued whenever possible (e.g. intra-DU), without Reset, with the target to avoid data loss, and the additional delay of data recovery.

R2-2208212 Prerequisites and benefits of Lower Layer Mobility Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_mob\_enh2-Core

* ICBM is one scenario considered for L1L2 mobility, but is not the only one, and is not a prerequisite for using L1L2 mobility.
* RAN2 to consider preparation of target cell configurations capable of dynamic switching without need for full configuration.

R2-2207637 L1/L2 mobility target performance enhancements Huawei, HiSilicon discussion Rel-18 NR\_mob\_enh2-Core

- ZTE think that L3 mesurements should be used for inter-DU. Chair: there is also wider support for the inter-DU case, if we find issues, we can go back

* Measurement delay can/may be considered in this work
* Assume that we rely on L1 measurements to trigger L1L2 mobility (still measurement for preparation could be L3, FFS)

DISCUSSION 2 (W2)

CA and DC

- Chair wonder if 11b and 11c are intended as inter freq scenarios

- VDF wonder what is the 11a. HW think that this is CA --> CA scenario.

- LG agrees with 11 and think there are limitation to intra-CG, in particular for DC (also an inter-freq scenario).

- QC agrees with P11. QC wonder how 11b relates to the L1L2 mob configuration. HW clarifies that target Pcell is same as a currently configured Scell.

- Ericsson think we need to consider the RRC model to see the complexity B and C could be FFS.

- 11a: vivo think this is not prioritized. 11bc: are these in the current CG.

- Lenovo hope that DC is not ruled out.

- OPPO think this means that we consider L1 measurements for inter-frequency. Huawei think that the current proposal avoids that, these are serving cells so L1 measurements can be available.

- Lenovo and FW think that PCell scenarios could be both CA and DC.

* R2 will initially focus on PCell mobility.
* R2 assumption: Rel-18 L1/L2 mobility includes both non-CA (PCell only) and CA scenarios (PCell and SCell). This includes the following cases

a) the target PCell/target SCell(s) is not a current serving cell (CA 🡪 CA scenario with PCell change)

b) FFS the target PCell is a current SCell

c) FFS the target SCell is the current PCell.

* DC scenarios are FFS (e.g. PSCell mobility may be a low hanging fruit FFS).

OFFLINE: Together with capturing agreements, Capture a mobility timing chart (for L1L2 mobility) as a reference include all pieces of procedures that may be optimized impacted etc (to reflect current agreements)

* [Post119-e][036][feMob] Agreements, time chart, LS out (MediaTek)

Scope: Capture WI agreements, Capture a mobility timing chart for L1L2 mobility, as a reference - include all pieces of procedures that may be optimized impacted FFS etc (acc to current agreements). LS out to RAN1 and RAN3 on the RAN2 progress, and ask to take into account.

 Intended outcome: Endorsed Report or Stage-2 CR with appendix etc, Approved LS out

 Deadline: Short (Can start before the meeting has ended)

R2-2207537 Discussion on Dynamic switch mechanism among candidate serving cells KDDI Corporation discussion

R2-2207380 Discussion on latency model of L1 L2 mobility Intel Corporation discussion Rel-18 NR\_mob\_enh2-Core

R2-2208455 Initial considerations on L1L2 mobility CMCC discussion Rel-18 NR\_mob\_enh2-Core

R2-2207918 Applicable scenarios for L1/L2 based mobility enhancements Vodafone discussion Rel-18

R2-2208200 Latency analysis for L1/L2 based inter-cell mobility Ericsson discussion Rel-18 NR\_mob\_enh2-Core

R2-2206992 On the Target Performance Enhancements for L1L2 based Mobility CATT discussion Rel-18 NR\_mob\_enh2-Core

R2-2207407 Consideration on L1/L2 signalling based mobility Fujitsu discussion Rel-18 NR\_mob\_enh2-Core

R2-2207466 Latency reduction aspects of L2/L1 mobility Apple discussion Rel-18 NR\_mob\_enh2-Core

R2-2207496 Target scenario and latency reduction in L1/L2 based mobility NEC discussion Rel-18 NR\_mob\_enh2-Core

R2-2207655 Analysis of HO latency and possible enhancements for L1/L2 mobility OPPO discussion Rel-18 NR\_mob\_enh2-Core

R2-2207752 Discussion on basic model for L1 L2 mobility vivo discussion Rel-18 NR\_mob\_enh2-Core

R2-2207806 Latency Evaluation of L1 or L2 based mobility Xiaomi discussion Rel-18 NR\_mob\_enh2-Core

R2-2207857 Initial discussion of L1/L2 mobility Sharp discussion Rel-18 NR\_mob\_enh2-Core

R2-2208185 Target enhancements and latency model for L1/2 triggered handover Interdigital, Inc. discussion Rel-18 NR\_mob\_enh2-Core

R2-2208367 Discussion on L1 L2 mobility performance enhancement ASUSTeK discussion Rel-16 NR\_mob\_enh2-Core

R2-2208522 L1/L2 mobility scenarios and latency LG Electronics discussion Rel-18

R2-2208528 Scenario and Target Performance Enhancements for L1/L2 mobility Samsung discussion NR\_mob\_enh2-Core

R2-2208559 Initial Consideration on L1-L2 Signaling Based Mobility ZTE Corporation,Sanechips discussion Rel-18 NR\_mob\_enh2-Core

R2-2207315 NR mobility issues and goals for improvement Futurewei discussion Rel-18 NR\_mob\_enh2-Core

#### 8.4.2.2 Candidate Solutions

A first attempt to identify/list candidate solutions.

Prepared Configuration

R2-2208199 Configuration of candidate target cells for L1/L2 based inter-cell mobility Ericsson discussion Rel-18 NR\_mob\_enh2-Core

DISCUSSION

P2

- Lenovo wonder how abc would work in a multi-TRP scenario.

- Ericsson don’t see an issue, the configuration can be provided as normal.

- QC think individual cell config and cell group config need to be considered. Need to update the individual cell, possibly even additional PCI. QC think they are related. Can maybe start with cell group level.

- Ericsson prefer one single model.

- Huawei think there may be target PCell and target PSCell. Think option C is not suitable for inter-DU. Think also that option d is not enough.

- Vivo agrees there will be one model, but wonder then if there will be a limitation to not include Scell.

- Vivo also wonder about d. Think it could be possible also to extend the ICBM model. Ericsson think that additional PCI is complex as it is and should not be used for other use cases

- MTK think b is a good and general starting point.

- Apple think a doesn’t work, too much overhead.

- Nokia want to keep a on the table.

- A cpl of companies want to keep d on the table.

* Current options on the table: to configure a L1/L2 inter-cell mobility candidate cell:

a. One RRCReconfiguration message for candidate target cell

b. One CellGroupConfig IE for each candidate target cell

c. One SpCellConfig IE for each candidate target cell

* [Post119-e][048][feMob] Candidate target configurations for L1/L2 mobility (Ericsson)

 Scope: Explore/Identify the pros/cons of options on the table in the support of the different target scenarios, supporting with high performance cell changes without reconfiguration. Can identify specific aspects of the configurations, that are potentially necessary.

 Intended outcome: Report, with proposals to be addressed at next meeting.

 Deadline: long (to next meeting)

Measurements

R2-2207656 Discussion on measurement and reporting of L1/L2 mobility OPPO discussion Rel-18 NR\_mob\_enh2-Core

Measurements brief discussion without treating any document

- Chair asks whether this is something we discuss by email.

- Huawei think we should just LS to RAN1 that we have agreed to use L1 measurements.

- Vivo tend to agree with HW.

- Ericsson think we can do both.

- Chair: there seems to be opposition to discuss by email so lets just send an LS with progress info.

* Will send an LS to RAN1 and RAN3 on the progress of this meeting.

General

R2-2206993 Discussion on Solutions for L1L2 Based Inter-Cell Mobility CATT discussion Rel-18 NR\_mob\_enh2-Core

R2-2206983 Candidate Solutions for L1L2-based Inter-cell Mobility MediaTek Inc. discussion

R2-2207738 Solutions for L1 L2 mobility Huawei, HiSilicon discussion Rel-18 NR\_mob\_enh2-Core

R2-2208201 Solutions for L1/L2 based inter-cell mobility Ericsson discussion Rel-18 NR\_mob\_enh2-Core

R2-2208213 Basic details of Lower Layer L1/L2 Mobility Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_mob\_enh2-Core

R2-2207753 Discussion on candidate solutions for L1 L2 mobility vivo discussion Rel-18 NR\_mob\_enh2-Core

R2-2207316 Suggested solutions for L1/L2 mobility enhancement Futurewei discussion Rel-18 NR\_mob\_enh2-Core

=> Revised in R2-2208699

R2-2208699 Suggested solutions for L1/L2 mobility enhancement Futurewei discussion Rel-18

R2-2207339 L1 L2 inter-cell mobility design principles Lenovo discussion NR\_mob\_enh2-Core Late

R2-2207340 L1/L2 Mobility – General Concepts and Configuration Qualcomm Incorporated discussion Rel-18

R2-2207381 Discussion on candidate solutions of L1 L2 mobility Intel Corporation discussion Rel-18 NR\_mob\_enh2-Core

R2-2207467 Basic Agreements for Candidate Solutions Apple discussion Rel-18 NR\_mob\_enh2-Core

R2-2207497 Possible solutions for L1/L2 based mobility NEC discussion Rel-18 NR\_mob\_enh2-Core

R2-2207535 Discussion on L1L2 mobility NTT DOCOMO INC. discussion Rel-18

R2-2207657 Initial considerations on L1/L2 mobility OPPO discussion Rel-18 NR\_mob\_enh2-Core

R2-2207681 Discussion on L1/L2 based inter-cell mobility Spreadtrum Communications discussion Rel-18

R2-2207807 Candidate solutions for L1 L2 based inter-cell mobility Xiaomi discussion Rel-18 NR\_mob\_enh2-Core

R2-2208186 Support for L1/2 triggered handover Interdigital, Inc. discussion Rel-18 NR\_mob\_enh2-Core

R2-2208325 Discussion on L1L2 mobility LG Electronics Inc. discussion NR\_mob\_enh2-Core

R2-2208326 General aspects of L1L2 based inter-cell mobility LG Electronics Inc. discussion Rel-18 NR\_mob\_enh2-Core

R2-2208368 Discussion on L1 L2 mobility procedure ASUSTeK discussion Rel-16 NR\_mob\_enh2-Core

R2-2208409 Candidate solutions for L1/L2 mobility ZTE Corporation, Sanechips discussion Rel-18 NR\_mob\_enh2-Core

R2-2208456 Potential solutions for L1L2 mobility CMCC discussion Rel-18 NR\_mob\_enh2-Core

R2-2208529 Considerations on the L1/L2 Inter-Cell Mobility Samsung discussion NR\_mob\_enh2-Core

### 8.4.3 NR-DC with selective activation cell of groups

Consolidate the aspects to improve.

R2-2207726 NR-DC with selective activation Ericsson discussion Rel-17 NR\_mob\_enh2-Core

R2-2207917 Further mobility enhancements for NR-DC Vodafone Telekomünikasyon A.S. discussion Rel-18

R2-2207317 Pre-configuring and handling multiple candidates for NR-DC Futurewei discussion Rel-18 NR\_mob\_enh2-Core

DISCUSSION on the 3 tdocs above

- Huawei think that in these proposals the SRC is not prepared, and the targets may have neighbors, we should not prepare unless there is measurements. Huawei think intra SN preparation would be simple. Vodafone think it is possible to prepare blindly. QC agrees with Huawei that prep should ba based on measurements.

- Apple support the concept of reference config to support delta configuration. Chair wonder whether a reference config would be a full config, and when applying the delta+reference then apply as if it is a full config.

- Apple think There is a security issue, Sn (see below paper)

- QC think we should progress first on O2 independent to O1, possibly consolidate later.

- CATT would agree to simplify this, ok to exclude MCG. Agree P1 in Ericsson paper- only need one solution. Also agrees to use a reference config, can b e indep of src cell.

- Lenovo wonder what is the expected time of stay. Think full config vs delta config is not the main issue. Agrees with Huawei that prep should be based on measurements, canb begin with intraSN

- Vivo think we should discuss the basic model first. Regarding full/delta agree with Lenovo. Full config would be ok. Agree to exclude MCG.

- Nokia think that we should avoid full config, want to avoid reestablishment and reset, would like to keep MCG.

- ZTE agrees to prioritize intra SN. Think it could be similar to L1L2 mobility. Think delta config could be considered and the network could indicate which is the reference.

- LG also agree MCG depioritization. SCG impr re more helpful. LG think that we may need modifications for delta config, security etc. think harmonization can be discussed later.

- MTK agrees that the scope can become really large, support limit to SCG. Progress O1 and O2 indep first. Has some sympathy to optimize for delta config.

- Intel think we should focus on intra SN (for security), think delta config should be considered for efficiency.

- OPPO think we can focus on SCG. Avoid full config. More study needed.

- Samsung think we should focus on SCG, like the efficiency of delta config. Think we need to clarify what is the preassumed state.

- CMCC think we prioritize SCG, support detla config for singnalling overhead reduction. Xiaomi agrees.

- Vodafone think for delta config the signalling overhead is the major issue. Think we keep the similarty with legacy PSCell change. Think indeed intra MCG ican be the focus.

- FW think that we also want to reduce switch delay and delta config can help with this, maybe can have common preconfig with L1L2 mobility.

- NEC think subsequent CPC after normal PScell change could be supported

Chair Proposes the proposals below

- Apple think there is always CPC, no CPA.

- Vivo think UE may return to DC by CPA. For the normal cell group change.

- Nokia think delta is also for reducing L2 reset. QC think we don’t; need to focus on this.

- QC think that if UE starts with SA config then CPA is applicable.

- Huawei wonder how many subsequent conditional changes are targeted.

* The selective activation of cell groups should correspond to support of subsequent conditional changes (CPC) after a cell group change (normal or conditional). CPA FFS.
* Initial focus on SCG
* There is interest to support delta configuration, to reduce the signalling overhead (FFS if some other objective should be achieved)
* FFS how many subsequent conditional changes are targeted (and what is the impact of such assumption).

R2-2207468 Setting the stage for practical operation of selective activation of cell groups Apple discussion Rel-18 NR\_mob\_enh2-Core

DISCUSSION

- Lenovo think that horizontal key derivation works and only if the UE comes back to a previous cell there is an issue. Apple confirms.

- Apple are also concerned about the UE storing configurations related to security for very long time. Lenovo think that the keys are only derived when the UE goes to the new cell.

- VDF think normal legacy HO is still there and it is network responsibility to provide configuration.

- Nokia think this is only for inter-SN.

- Huawei think there is no saved security, we just apply the normal rules. Apple understand that the will not be an RRC message, indicating whether to do vertical or horizontal key derivation, and also when going back to previous cell in other SN

- Chair wonder if sufficient to avoid NCC mismatch.

* FFS whether there is a security issue: e.g. to determine vertical or horizontal key derivation, e.g. security parameters re-used as part of subsequent CG switch (for the case when UE goes back to a previous cell, maybe in another SN), and FFS on the procedure/method with which the UE derives the SN security, e.g. based on a prior MN config (without RRC CPC config at the time of SN switch).

R2-2206994 Discussion on Selective Activation of Cell Groups in NR-DC CATT discussion Rel-18 NR\_mob\_enh2-Core

R2-2207125 Discussion on requirement for subsequent CG change PANASONIC R&D Center Germany discussion Rel-18

R2-2207382 Discussion on NR-DC with selective activation cell of groups Intel Corporation discussion Rel-18 NR\_mob\_enh2-Core

R2-2207498 Overview of selective CG activation NEC discussion Rel-18 NR\_mob\_enh2-Core

R2-2207534 Discussion on selective activation NTT DOCOMO INC. discussion Rel-18

R2-2207638 NR-DC with selective activation of SCG Huawei, HiSilicon discussion Rel-18 NR\_mob\_enh2-Core

R2-2207658 Discussion on selective activation of cell groups OPPO discussion Rel-18 NR\_mob\_enh2-Core

R2-2207677 Discussion on NR-DC with selective activation cell of groups Spreadtrum Communications discussion Rel-18

R2-2207694 On selective cell group activation Lenovo discussion Rel-18

R2-2207754 Discussion on NR-DC with selective activation cell of groups vivo discussion Rel-18 NR\_mob\_enh2-Core

R2-2207858 Initial discussion of selective activation Sharp discussion Rel-18 NR\_mob\_enh2-Core

R2-2207910 Aspects to improve for the support of subsequent CPC NEC discussion Rel-18 NR\_mob\_enh2-Core

R2-2207922 Selective Cell Group Activation LG Electronics Finland discussion Rel-18 NR\_mob\_enh2-Core

R2-2208036 Analysis of applicable scenarios and problems for NR-DC selective activation procedure Nokia, Nokia Shanghai Bell discussion Rel-18

R2-2208145 Configuration and activation of multiple cell groups in NR-DC Qualcomm Incorporated discussion Rel-18

R2-2208264 Selective activation of cell groups InterDigital, Inc. discussion Rel-18 NR\_mob\_enh2-Core

R2-2208410 Discussion on NR-DC with selective activation of the cell groups ZTE Corporation, Sanechips discussion Rel-18 NR\_mob\_enh2-Core

R2-2208451 Discussion on NR-DC with selective activation cell of groups CMCC discussion Rel-18 NR\_mob\_enh2-Core

R2-2208467 Discussion on NR-DC with selective activation of the cell groups Xiaomi discussion

R2-2208477 Discussion on selective activation of CG MediaTek Inc. discussion

R2-2208530 Considerations on subsequent CPAC after SCG change Samsung discussion NR\_mob\_enh2-Core

### 8.4.4 Other

R2-2208468 CHO with one or multiple candidate SCGs Xiaomi discussion

DISCUSSION

P123

- Apple think for P2, wonder if we want to allow intra-SN CPC without MN involvement.

- P2 QC think the original objective is sufficient, Huawei agrees this is not sufficient and this proposal seems to not give anything. Intel agrees and think we could start with MN-initated CPC.

- P1: Ericsson think we need to do stage-2 work

* Observation: Current RAN2 Stage-3 specifications can support CHO including target MCG and target SCG in Rel-17.
* CHO configuration referring to or including CPC/CPA configuration (intended to be applicable together) can be supported.
* FFS: When triggering CHO, UE perform CPC/CPA configuration to start CPC/CPA evaluation, FFS if CHO evaluation and CPC/CPA evaluation is concurrent or sequential.

*Chair: NOTE that the above agreements are NOT intended to describe the Stage3 signalling details.*

R2-2207383 Discussion on CHO including candidate SCGs Intel Corporation discussion Rel-18 NR\_mob\_enh2-Core

R2-2207325 First thoughts on Conditional Handover with candidate SCGs for CPAC Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_mob\_enh2-Core

R2-2206995 Discussion on CHO including target MCG and candidate SCGs for CPC/CPA CATT discussion Rel-18 NR\_mob\_enh2-Core

R2-2207695 Failure case for CHO with SCG Lenovo discussion Rel-18

R2-2207696 CHO with target MCG and candidate SCG Lenovo discussion Rel-18

R2-2207739 CHO including candidate SCGs for CPC/CPA Huawei, HiSilicon discussion Rel-18 NR\_mob\_enh2-Core

R2-2207755 Discussion on CHO with CPAC vivo discussion Rel-18 NR\_mob\_enh2-Core

R2-2207848 Considerations on CHO+CPA/CPC Samsung discussion Rel-18 NR\_mob\_enh2-Core

R2-2207859 Support of SCG deactivation with conditional reconfiguration Sharp discussion Rel-18 NR\_mob\_enh2-Core

R2-2208144 CHO including target MCG and candidate SCGs Qualcomm Incorporated discussion Rel-18

R2-2208262 CHO with associated SCG InterDigital, Inc. discussion Rel-18 NR\_mob\_enh2-Core

R2-2208411 Discussion on CHO with candidate SCG ZTE Corporation, Sanechips discussion Rel-18 NR\_mob\_enh2-Core

R2-2208475 Discussion and clarification on CHO enhancement scenarios MediaTek Inc. discussion

## 8.5 XR Enhancements for NR

(FS\_NR\_XR\_enh; leading WG: RAN2; REL-18; WID: [RP-220285](https://www.3gpp.org/ftp/tsg_ran/TSG_RAN/TSGR_95e/Docs/RP-220285.zip))

Time budget: 2 TU

Tdoc Limitation: 3 Tdocs

### 8.5.1 Organizational

Including LSs and any rapporteur inputs (e.g. work plan, draft TR)

R2-2206917 LS on draft TR 38.835 skeleton (R1-2205443; contact: Nokia) RAN1 LS in Rel-18 FS\_NR\_XR\_enh To:RAN2

R2-2206923 Reply LS on UE Power Saving for XR and Media Services (R1-2205531; contact: Qualcomm) RAN1 LS in Rel-18 FS\_XRM, FS\_NR\_XR\_enh To:SA2, RAN2

R2-2206964 LS on QoS support with PDU Set granularity (S2-2201803; contact: Intel) SA2 LS in Rel-18 FS\_XRM To:SA4 Cc:RAN1, RAN2, RAN3

R2-2206966 LS on UE Power Saving for XR and Media Services (S2-2203418; contact: Nokia) SA2 LS in Rel-18 FS\_XRM To:RAN1, RAN2

R2-2206969 LS Reply on QoS support with PDU Set granularity (S4-220505; contact: Qualcomm) SA4 LS in Rel-18 FS\_XRM, FS\_XRTraffic To:SA2 Cc:RAN1, RAN2, RAN3

R2-2207042 Draft reply LS on UE power savings for XR and media services Qualcomm Incorporated discussion Rel-18 FS\_NR\_XR\_enh

R2-2207371 Work Plan for Rel-18 SI on XR Enhancements for NR Nokia, Qualcomm (Rapporteurs) Work Plan Rel-18 FS\_NR\_XR\_enh

R2-2207372 XR TR Structure Nokia (Rapporteur) discussion Rel-18 FS\_NR\_XR\_enh

R2-2207373 TR 83.835 v001 Nokia (Rapporteur) draft TR Rel-18 38.835 0.0.1 FS\_NR\_XR\_enh

R2-2207374 TR 83.835 v002 Nokia (Rapporteur) draft TR Rel-18 38.835 0.0.2 FS\_NR\_XR\_enh

R2-2207375 XR Overview TP Nokia (Rapporteur) discussion Rel-18 FS\_NR\_XR\_enh

R2-2207376 Draft LS to SA4 on Pose Information for XR Nokia (Rapporteur) LS out Rel-18 FS\_NR\_XR\_enh To:SA4 Cc:RAN1, SA2

R2-2208316 Discussion of SA2 LS on UE Power Saving for XR and Media Services Meta Ireland discussion Rel-18

### 8.5.2 XR-awareness

Including discussion on XR traffic characteristics (e.g. QoS, PDB, PDU size and periodicity, jitter, etc.) and how RAN is aware of those. Contributions should take the existing SA2/SA4 decisions into account.

R2-2207044 XR-awareness in RAN Qualcomm Incorporated discussion Rel-18 FS\_NR\_XR\_enh

R2-2207117 XR awareness: RAN2 areas of interest, assumptions, and inputs to SA2 LS Intel Corporation discussion Rel-18 FS\_NR\_XR\_enh

R2-2207118 Solution Directions for XR Specific Differentiated Traffic Handling and Packet Dropping Intel Corporation discussion Rel-18 FS\_NR\_XR\_enh

R2-2207197 Discussion on XR-awareness NTT DOCOMO, INC. discussion Rel-18

R2-2207210 Discussing on XR-awareness in RAN Xiaomi Communications discussion

R2-2207366 Discussion on XR-awareness TCL Communication discussion Rel-18

R2-2207377 XR Awareness in SA2 Nokia (Rapporteur) discussion Rel-18 FS\_NR\_XR\_enh

R2-2207429 Considerations on XR-awareness, QoS-metrics, and XR-specific traffic handling Apple discussion Rel-18 FS\_NR\_XR\_enh

R2-2207489 Discussion on XR-awareness InterDigital, Inc. discussion Rel-18 FS\_NR\_XR\_enh

R2-2207508 XR requirements and issues CATT discussion Rel-18 FS\_NR\_XR\_enh

R2-2207680 Discussion on RAN awareness of XR traffic characteristics Spreadtrum Communications discussion Rel-18

R2-2207697 Discusion of XR awareness in RAN Lenovo discussion Rel-18

R2-2207756 Discussion on XR-awareness vivo discussion Rel-18 FS\_NR\_XR\_enh

R2-2207761 Discussion on XR-awareness III discussion FS\_NR\_XR\_enh

R2-2207780 Discussion on XR-awareness KT Corp. discussion

R2-2207801 Discussion on XR-awareness in RAN OPPO discussion Rel-18 FS\_NR\_XR\_enh

R2-2207831 Considerations on XR awareness Sony discussion Rel-18 FS\_NR\_XR\_enh

R2-2207893 XR-awareness techniques Google Inc. discussion

R2-2207926 First steps for XR handling Vodafone GmbH discussion Rel-18

R2-2207980 RAN level protocol enhancements for XR awareness ZTE Corporation, Sanechips discussion

R2-2207991 Views on XR-specific handling at RAN Huawei, HiSilicon discussion Rel-18 FS\_NR\_XR\_enh

R2-2207998 On RAN awareness of XR traffic characteristics MediaTek Inc. discussion Rel-18 FS\_NR\_XR\_enh

R2-2208021 Draft LS on first steps for XR handling Vodafone GmbH LS out Rel-18 To:SA2,SA4 Cc:RAN1

R2-2208223 RAN behaviour for XR-awareness QoS ETRI discussion

R2-2208259 Discussion on XR awareness Samsung discussion Rel-18 FS\_NR\_XR\_enh

R2-2208313 Discussion on XR-Awareness RAN Meta Ireland discussion Rel-18

R2-2208321 Discussion on XR-awareness LG Electronics Inc. discussion FS\_NR\_XR\_enh

R2-2208443 Consideration on XR-awareness in RAN CMCC discussion Rel-18 FS\_NR\_XR\_enh

R2-2208618 Discussion on XR traffic characteristics Futurewei discussion Rel-18 FS\_NR\_XR\_enh

R2-2208677 Discussion on XR-awareness Ericsson discussion Rel-17

### 8.5.3 XR-specific power saving

Including discussion on how the XR traffic characteristics (e.g. QoS, PDB, PDU size and periodicity, jitter, etc.) impact power saving and what kind of power saving aspects are needed.

R2-2206986 Discussion on XR-specific power saving FGI discussion

R2-2206996 Discussion on CDRX enhancement for XR OPPO discussion Rel-18 FS\_NR\_XR\_enh

R2-2207045 Power saving enhancements for XR Qualcomm Incorporated discussion Rel-18 FS\_NR\_XR\_enh

R2-2207084 Consideration on CDRX enhancement for XR KDDI Corporation discussion Rel-18

R2-2207119 Study of C-DRX enhancements for XR traffic Intel Corporation discussion Rel-18 FS\_NR\_XR\_enh

R2-2207171 Discussion on XR power saving III discussion

R2-2207211 Discussing on XR-specific power saving Xiaomi Communications discussion

R2-2207294 C-DRX enhancement for XR-specific power saving NEC Telecom MODUS Ltd. discussion

R2-2207368 Discussion on XR-specific power saving TCL Communication discussion Rel-18

R2-2207409 Discussion on XR-specific power saving techniques DENSO CORPORATION discussion Rel-18 FS\_NR\_XR\_enh

R2-2207430 Power Saving for Periodical XR Traffics Apple discussion Rel-18 FS\_NR\_XR\_enh

R2-2207490 Discussion on XR-specific power saving InterDigital, Inc. discussion Rel-18 FS\_NR\_XR\_enh

R2-2207509 Consideration on power saving for XR services CATT discussion Rel-18 FS\_NR\_XR\_enh

R2-2207569 DRX enhancement for power saving in XR LG Electronics Inc. discussion FS\_NR\_XR\_enh

R2-2207673 Discussion on power saving in XR Spreadtrum Communications discussion Rel-18

R2-2207757 Discussion on XR-specific power saving vivo discussion Rel-18 FS\_NR\_XR\_enh

R2-2207832 Considerations on XR specific C-DRX power saving enhancements Sony discussion Rel-18 FS\_NR\_XR\_enh

R2-2207846 Discussion on power saving scheme for XR Samsung discussion Rel-18 FS\_NR\_XR\_enh

R2-2207864 XR-specific power saving techniques Google Inc. discussion

R2-2207877 Discussion on Power saving enhancements Lenovo discussion Rel-18 FS\_NR\_XR\_enh

R2-2207888 Discussion on XR-specific power saving techniques Huawei, HiSilicon discussion FS\_NR\_XR\_enh

R2-2207979 Power Saving enhancements for XR ZTE Corporation, Sanechips discussion

R2-2207999 C-DRX enhancements for XR MediaTek Inc. discussion Rel-18 FS\_NR\_XR\_enh

R2-2208019 XR power saving RAN1 study overview and suggestions for RAN2 focus Nokia, Nokia Shanghai Bell (Rapporteur) discussion Rel-18 FS\_NR\_XR\_enh

R2-2208020 XR Power Saving enhancements Nokia, Nokia Shanghai Bell discussion Rel-18 FS\_NR\_XR\_enh

R2-2208295 Draft Reply LS on UE Power Saving for XR and Media Services Nokia LS out Rel-18 FS\_NR\_XR\_enh To:SA2 Cc:RAN1 Late

R2-2208440 Discussion on XR-specific power saving CMCC discussion Rel-18 FS\_NR\_XR\_enh

R2-2208620 Impacts of XR traffics on UE power saving Futurewei discussion Rel-18 FS\_NR\_XR\_enh

R2-2208680 Discussion on power saving enhancements for XR Ericsson discussion Rel-17

### 8.5.4 XR-specific capacity improvements

Including discussion on how scheduler is impacted by XR traffic in UL/DL and what kinds of scheduling mechanisms are required.

R2-2207050 Capacity enhancements for XR Qualcomm Israel Ltd. discussion Rel-18

R2-2207173 Discussion on the UL enhancement for XR ITRI discussion FS\_NR\_XR\_enh

R2-2207212 Discussing on XR-specific capacity improvements Xiaomi Communications discussion

R2-2207295 XR-specific capacity improvements NEC Telecom MODUS Ltd. discussion

R2-2207367 Discussion on XR-specific capacity improvements TCL Communication discussion Rel-18

R2-2207378 XR Capacity Improvements Nokia, Nokia Shanghai Bell discussion Rel-18 FS\_NR\_XR\_enh Late

R2-2207410 Discussion on XR-specific capacity improvements DENSO CORPORATION discussion Rel-18 FS\_NR\_XR\_enh

R2-2207431 Capacity Enhancement based on XR PDU Set Characteristics Apple discussion Rel-18 FS\_NR\_XR\_enh

R2-2207491 Discussion on XR-specific capacity improvements InterDigital, Inc. discussion Rel-18 FS\_NR\_XR\_enh

R2-2207510 XR-specific Capacity Improvement CATT discussion Rel-18 FS\_NR\_XR\_enh

R2-2207674 Some improvements on XR capacity Spreadtrum Communications discussion Rel-18

R2-2207719 XR-specific capacity improvements MediaTek Beijing Inc. discussion Rel-18

R2-2207758 Discussion on XR Capacity Enhancements vivo discussion Rel-18 FS\_NR\_XR\_enh

R2-2207762 Discussion on XR-specific capacity improvements III discussion FS\_NR\_XR\_enh

R2-2207785 Discussion on XR capacity improvements KT Corp. discussion

R2-2207802 Discussion on XR-specific capacity improvements OPPO discussion Rel-18 FS\_NR\_XR\_enh

R2-2207833 Considerations on XR specific capacity improvements Sony discussion Rel-18 FS\_NR\_XR\_enh

R2-2207878 Discussion on XR-specific capacity enhancements Lenovo discussion Rel-18 FS\_NR\_XR\_enh

R2-2207921 XR-specific capacity improvements Google Inc. discussion

R2-2207978 Capacity enhancements of XR support in RAN ZTE Corporation, Sanechips discussion

R2-2208232 Scheduling method for XR packets ETRI discussion

R2-2208302 Discussion on XR-specific capacity improvement Samsung discussion Rel-18 FS\_NR\_XR\_enh

R2-2208401 Discussion on Capacity enahancement for XR LG Electronics Inc. discussion Rel-18 FS\_NR\_XR\_enh

R2-2208417 Support for XR-specific scheduler enhancements AT&T discussion Rel-18

R2-2208422 Discussion on XR-specific capacity improvements CMCC discussion Rel-18 FS\_NR\_XR\_enh

R2-2208498 Discussion on XR-specific capacity enhancements techniques Huawei, HiSilicon discussion Rel-18 FS\_NR\_XR\_enh

R2-2208621 Layer 2 based XR capacity enhancement Futurewei discussion Rel-18 FS\_NR\_XR\_enh

R2-2208676 XR capacity enhancements Ericsson discussion Rel-17

## 8.6 IoT NTN enhancements

(xx-Core; leading WG: RAN1; REL-18; WID: RP-221806)

Time budget: 1 TU

Tdoc Limitation: 3 tdocs

### 8.6.1 Organizational

LSs, rapporteur inputs and other organizational documents. Rapporteur inputs and other pre-assigned documents in this AI do not count towards the tdoc limitation.

### 8.6.2 Performance Enhancements

R2-2207060 Discussion on HARQ enhancement for IoT NTN OPPO discussion Rel-18 IoT\_NTN\_enh-Core

R2-2207075 Discussion on GNSS operation in connected mode OPPO discussion Rel-18 IoT\_NTN\_enh-Core

R2-2207300 On Disabling HARQ Feedback in IoT-NTN MediaTek Inc. discussion

R2-2207354 HARQ process enhancements Qualcomm Incorporated discussion Rel-18 IoT\_NTN\_enh-Core

R2-2207484 Discussion on HARQ feedback disabling Huawei, HiSilicon discussion Rel-18 IoT\_NTN\_enh

R2-2207647 Discussion on performance enhancement for IoT NTN Transsion Holdings discussion Rel-18

R2-2207710 Considerations on reducing UE GNSS operations in long connection time Lenovo discussion Rel-18

R2-2207841 Consideration on HARQ and GNSS enhancements ZTE Corporation, Sanechips discussion Rel-18 IoT\_NTN\_enh-Core

R2-2208187 Disabling HARQ feedback for IoT-NTN Interdigital, Inc. discussion Rel-18 IoT\_NTN\_enh-Core

R2-2208388 Discussion on the HARQ disabling in IoT NTN CATT discussion Rel-18 IoT\_NTN\_enh

R2-2208448 Discussion on the performance enhancement for IoT-NTN CMCC discussion Rel-18 IoT\_NTN\_enh

R2-2208565 Discussion on HARQ feedback disabling for IoT NTN Nokia, Nokia Shanghai Bell discussion Rel-18 IoT\_NTN\_enh

R2-2208585 Discussion on disabling of HARQ feedback Xiaomi discussion Rel-18

### 8.6.3 Mobility Enhancements

R2-2207061 Discussion on mobility enhancement for IoT NTN OPPO discussion Rel-18 IoT\_NTN\_enh-Core

R2-2207275 Discussion on neighbour cell measurements in IoT NTN Intel Corporation discussion Rel-18 IoT\_NTN\_enh

R2-2207299 On Mobility Enhancements in IoT-NTN MediaTek Inc. discussion

R2-2207355 Connected mode mobility enhancements Qualcomm Incorporated discussion Rel-18 IoT\_NTN\_enh-Core

R2-2207500 Discussion on mobility enhancements for IoT NTN Huawei, HiSilicon discussion Rel-18 IoT\_NTN\_enh

R2-2207648 Discussion on mobility enhancement for IoT NTN Transsion Holdings discussion Rel-18

R2-2207682 Discussion on triggering neighbour cell measurement before RLF Spreadtrum Communications discussion Rel-18

R2-2207711 Considerations on neighbour cell measurement for NB-IoT in NTN scenario Lenovo discussion Rel-18

R2-2207842 Consideration on mobility enhancements ZTE Corporation, Sanechips discussion Rel-18 IoT\_NTN\_enh-Core

R2-2207913 Discussion on mobility enhancements to IoT NTN Xiaomi discussion

R2-2207931 Mobility Enhancement for IoT NTN Samsung R&D Institute UK discussion

R2-2207939 Neighbour cell measurements before RLF Apple discussion Rel-18 IoT\_NTN\_enh

R2-2208037 Changes to current mobility enhancement procedures for IoT-NTN Nokia, Nokia Shanghai Bell discussion Rel-18

R2-2208146 Discussion on Mobility Enhancements TURKCELL discussion Rel-18

R2-2208188 IoT-NTN mobility enhancements Interdigital, Inc. discussion Rel-18 IoT\_NTN\_enh-Core

R2-2208389 Discussion on the mobility enhancements in eMTC CATT discussion Rel-18 IoT\_NTN\_enh

R2-2208449 Discussion on the mobility enhancement for IoT-NTN CMCC discussion Rel-18 IoT\_NTN\_enh

R2-2208518 Use of Elevation Angle Threshold for IoT NTN Neighbour Cell Measurements SHARP Corporation discussion Rel-18

R2-2208673 R18 IoT NTN Mobility enhancements Ericsson discussion

### 8.6.4 Enhancements to discontinuous coverage

R2-2207301 Enhancements to discontinuous coverage in IoT-NTN MediaTek Inc. discussion

R2-2207356 RRC release procedure in discontinuous coverage Qualcomm Incorporated discussion Rel-18 IoT\_NTN\_enh-Core

R2-2207483 Discussion on the discontinuous coverage Huawei, HiSilicon discussion Rel-18 IoT\_NTN\_enh

R2-2207649 Discussion on enhancement to discontinuous coverage for IoT NTN Transsion Holdings discussion Rel-18

R2-2207683 Discussion on power saving mechanism for supporting discontinuous coverage Spreadtrum Communications discussion Rel-18

R2-2207712 Considerations on mobility management and power saving for discontinuous coverage Lenovo discussion Rel-18

R2-2207778 Power Saving Enhancement for Discontinuous Coverage Google Inc. discussion Rel-18

R2-2207843 Consideration on discontinuous coverage enhancements ZTE Corporation, Sanechips discussion Rel-18 IoT\_NTN\_enh-Core

R2-2207914 Discussion on enhancements to discontinuous coverage Xiaomi discussion

R2-2208023 Enhancements to discontinuous coverage Samsung R&D Institute UK discussion

R2-2208115 Power Saving Enhancement for Discontinuous Coverage Samsung R&D Institute UK discussion

R2-2208189 IoT-NTN discontinuous coverage enhancements Interdigital, Inc. discussion Rel-18 IoT\_NTN\_enh-Core

R2-2208450 Discussion on the discontinuous coverage for IoT-NTN CMCC discussion Rel-18 IoT\_NTN\_enh

R2-2208566 Discussion on Discontinuous Coverage for IoT NTN Nokia, Nokia Shanghai Bell discussion Rel-18 IoT\_NTN\_enh

R2-2208663 Discussion on Enhancements related to discontinuous coverage Rakuten Mobile, Inc discussion Rel-18 R2-2201620

R2-2208672 R18 IoT NTN Enhancements to discontinuous coverage Ericsson discussion

## 8.7 NR NTN enhancements

(xx-Core; leading WG: RAN1; REL-18; WID: RP-221819)

Time budget: 1 TU

Tdoc Limitation: 3 tdocs

### 8.7.1 Organizational

LSs, rapporteur inputs and other organizational documents. Rapporteur inputs and other pre-assigned documents in this AI do not count towards the tdoc limitation.

R2-2207096 R18 WI NR-NTN-enh work plan at RAN1, 2 and 3 THALES Work Plan Rel-18 NR\_NTN\_enh

### 8.7.2 Coverage Enhancements

R2-2207346 Protocol overhead reduction for coverage enhancements Qualcomm Incorporated discussion Rel-18 NR\_NTN\_enh-Core

R2-2207633 Discussion on RAN overhead reduction for VoNR support in NR NTN vivo discussion

R2-2207713 Potential issues for Msg3 repetition in NTN Lenovo discussion Rel-18

R2-2208276 Blind Msg3 retransmission in Rel-18 NTN InterDigital discussion Rel-18 NR\_NTN\_enh-Core

R2-2208323 Discussion on the coverage enhancement in NTN LG Electronics Inc. discussion NR\_NTN\_enh-Core

R2-2208375 Analysis on NTN Coverage Enhancement CATT discussion Rel-18 NR\_NTN\_enh

R2-2208567 On Coverage Enhancements for NR NTN Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_NTN\_enh

R2-2208586 Discussion on coverage enhancement for NR NTN Xiaomi discussion Rel-18

R2-2208612 Discussion on RAN protocol overhead reduction Huawei, HiSilicon discussion Rel-18 NR\_NTN\_enh

### 8.7.3 Network verified UE location

R2-2207074 Discussion on network verified UE location OPPO discussion Rel-18 NR\_NTN\_enh-Core

R2-2207098 Network verified UE location aspects THALES discussion Rel-18 NR\_NTN\_enh

R2-2207274 Discussion on network verified UE location Intel Corporation discussion Rel-18 NR\_NTN\_enh

R2-2207296 Assumptions on Network verified location NEC Telecom MODUS Ltd. discussion

R2-2207302 On Network Verified UE Location in NR-NTN MediaTek Inc. discussion

R2-2207326 Considerations on NW-verified UE location Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_NTN\_enh-Core

R2-2207444 Consideration on NTN Network Verified UE Location Apple discussion Rel-18 NR\_NTN\_enh-Core

R2-2207482 Discussion on the network verfied UE location Huawei, HiSilicon discussion Rel-18 NR\_NTN\_enh

R2-2207634 Discussion on NW verification of UE location in Rel-18 NR NTN vivo discussion

R2-2207645 Discussion of Network verified UE location in NTN China Telecom discussion Rel-18

R2-2207675 Discussion on UE location verify procedure Spreadtrum Communications discussion Rel-18

R2-2207779 Network Verified UE Location Samsung R&D Institute UK discussion

R2-2207866 On NTN NW verified UE location aspects Lenovo discussion Rel-18

R2-2207915 Discussion on network verified UE location Xiaomi discussion

R2-2208022 UE location verification in NTN Deutsche Telekom, Huawei, HiSilicon discussion Rel-18 NR\_NTN\_enh-Core

R2-2208328 Discussion on Network Verified UE Location NTT DOCOMO INC. discussion Rel-18

R2-2208376 Discussion on UE Location Verification CATT discussion Rel-18 NR\_NTN\_enh

R2-2208444 Consideration on UE Location Verification via Network CMCC discussion Rel-18 NR\_NTN\_enh-Core

R2-2208546 Consideration on NW verified UE location ZTE Corporation, Sanechips discussion Rel-18

R2-2208674 R18 NR NTN Network verified UE location Ericsson discussion

### 8.7.4 NTN-TN and NTN-NTN mobility and service continuity enhancements

R2-2207022 Discussion on assistance information of cell reselection for NTN-TN mobility ITRI discussion NR\_NTN\_enh

R2-2207048 Discussion on mobility enhancements in Rel-18 NTN New H3C Technologies Co., Ltd. discussion NR\_NTN\_enh

R2-2207062 Discussion on mobility enhancements for idle and inactive UEs OPPO discussion Rel-18 NR\_NTN\_enh-Core

R2-2207073 Discussion on NTN handover enhancements OPPO discussion Rel-18 NR\_NTN\_enh-Core

R2-2207195 Discussion on NTN-TN and NTN-NTN mobility NTT DOCOMO, INC. discussion Rel-18

R2-2207244 NTN mobility enhancements in connected mode Samsung Research America discussion Rel-18

R2-2207245 NTN cell reselection enhancements Samsung Research America discussion Rel-18

R2-2207272 Discussion on NTN handover enhancements Intel Corporation discussion Rel-18 NR\_NTN\_enh

R2-2207273 Discussion on NTN cell reselection enhancements Intel Corporation discussion Rel-18 NR\_NTN\_enh

R2-2207297 NTN-NTN handover enhancement for RRC\_CONNECTED UEs NEC Telecom MODUS Ltd. discussion

R2-2207298 Solutions to reduce UE power consumption for NTN to TN mobility in Idle or Inactive mode NEC Telecom MODUS Ltd. discussion

R2-2207303 Improving Cell Reselection in NR-NTN MediaTek Inc. discussion

R2-2207304 Handover Enhancement in LEO NTN with Earth-moving Cells MediaTek Inc. discussion

R2-2207327 On NTN-NTN and TN-NTN mobility in Rel-18 Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_NTN\_enh-Core

R2-2207347 Signaling and congestion reduction in satellite switch Qualcomm Incorporated discussion Rel-18 NR\_NTN\_enh-Core

R2-2207348 IDLE mode TN-NTN mobility enhancement Qualcomm Incorporated discussion Rel-18 NR\_NTN\_enh-Core

R2-2207445 NTN-NTN Mobility Enhancement Apple discussion Rel-18 NR\_NTN\_enh-Core

R2-2207446 NTN-TN Mobility Enhancement Apple discussion Rel-18 NR\_NTN\_enh-Core

R2-2207499 Discussion on NTN mobility enhancements Huawei, HiSilicon discussion Rel-18 NR\_NTN\_enh

R2-2207635 Discussion on mobility and service continuity enhancement vivo discussion

R2-2207646 Discussion of NTN-TN mobility China Telecom discussion Rel-18

R2-2207650 Discussion on NTN mobility and service continuity enhancements Transsion Holdings discussion Rel-18

R2-2207676 Some enhancements in NTN Handover Spreadtrum Communications discussion Rel-18

R2-2207714 Issue analysis for service continuity in TN-NTN and NTN-NTN scenarios Lenovo discussion Rel-18

R2-2207732 Discussion on handover for NTN BUPT discussion Withdrawn

R2-2207767 Discussion on NTN-TN mobility and NTN-NTN mobility ITL discussion Rel-18

R2-2207834 NTN-TN mobility enhancements Sony discussion Rel-18 NR\_NTN\_enh

R2-2207835 Signaling overhead reduction during NTN-NTN HOs Sony discussion Rel-18 NR\_NTN\_enh

R2-2207892 Discussion on handover for NTN BUPT discussion Withdrawn

R2-2207894 Network-driven NTN-NTN Mobility Considerations Lockheed Martin discussion Late

R2-2207916 Discussion on mobility and service continuity enhancements Xiaomi discussion

R2-2207986 Discussion on target cell's timing for intra-satellite and inter-satellite handover under users of non-uniform spatio -temporal distribution BUPT discussion

R2-2208147 Discussion on ephemeris usage for NR NTN TURKCELL discussion Rel-18 Withdrawn

R2-2208277 RRC Idle/Inactive measurement, mobility, and service continuity InterDigital discussion Rel-18 NR\_NTN\_enh-Core

R2-2208278 RRC Connected measurement, mobility, and service continuity InterDigital discussion Rel-18 NR\_NTN\_enh-Core

R2-2208280 Discussion on cell reselection enhancement for NTN LG Electronics France discussion Rel-18 NR\_NTN\_enh

R2-2208282 Reducing UE power consumption in idle inactive mode LG Electronics France discussion Rel-18 NR\_NTN\_enh

R2-2208332 Cell reselection enhancements in NTN-NTN and NTN-TN mobility ZTE corporation, Sanechips discussion Rel-18

R2-2208333 Discussion on NTN-NTN handover enhancement ZTE corporation, Sanechips discussion Rel-18

R2-2208377 Discussion on NTN Mobility Enhancements CATT discussion Rel-18 NR\_NTN\_enh

R2-2208424 Discussion on cell reselection enhancements CMCC discussion Rel-18 NR\_NTN\_enh-Core

R2-2208425 Discussion on mobility enhancements for connected mode CMCC discussion Rel-18 NR\_NTN\_enh-Core

R2-2208641 Discussion on ephemeris usage for NR NTN TURKCELL, Deutsche Telekom discussion Rel-18

R2-2208670 R18 NR NTN Mobility enhancements Ericsson discussion

R2-2208671 R18 NR NTN Idle mode Mobility enhancements Ericsson discussion

## 8.8 NR support for UAV

(xx-Core; leading WG: RAN1; REL-18; WID: RP-213600)

Time budget: 0.5 TU

Tdoc Limitation: 2

### 8.8.1 Organizational

R2-2207328 Uncrewed Aerial Vehicles in Rel-18 - workplan Nokia, Nokia Shanghai Bell Work Plan Rel-18 NR\_UAV-Core

### 8.8.2 Measurement reporting

*Contributions should focus on enhancement to measurement reports, for example UE-triggered measurement report based on configured height thresholds, Reporting of height, location and speed in measurement report, Flight path reporting, Measurement reporting based on a configured number of cells (i.e. larger than one) fulfilling the triggering criteria simultaneously*

*Note: Work done in LTE is a starting point for this objective. NR-specific enhancements can be considered, if needed, while overall the LTE and NR solutions should be harmonized as much as possible.*

### 8.8.3 Subscription-based aerial-UE identification

Contributions should focus on signaling required to support subscription-based aerial-UE identification

*Note: Work done in LTE is a starting point for this objective. NR-specific enhancements can be considered, if needed, while overall the LTE and NR solutions should be harmonized as much as possible.*

### 8.8.4 UAV identification broadcast

*Study and specify, if needed, enhancements for UAV identification broadcast*

NOTE: This Agenda Item will not be treated in this meeting

R2-2207076 Consideration on measurement reporting of NR support for UAV DENSO CORPORATION discussion NR\_UAV-Core

R2-2207154 Considerations on Measurement Reports Enhancements NEC Europe Ltd discussion Rel-18 NR\_UAV-Core

R2-2207194 Discussion on NR support for UAV NTT DOCOMO, INC. discussion Rel-18

R2-2207233 Measurement Reports Enhancement for UAV OPPO discussion Rel-18

R2-2207329 On measurement reporting enhancements for UAVs - LTE baseline in NR framework Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_UAV-Core

R2-2207518 Measurement Reporting for NR UAV CATT discussion Rel-18 NR\_UAV-Core

R2-2207601 Discussion on measurement reporting enhancement for NR UAV vivo discussion Rel-18 NR\_UAV

R2-2207602 Discussion on flight path reporting for NR UAV vivo discussion Rel-18 NR\_UAV

R2-2207624 On measurement and reporting enhancements Ericsson discussion NR\_UAV-Core Revised

R2-2207715 measurement report enhancement for NR UAV Lenovo discussion Rel-18

R2-2207836 UAV measurement reporting Sony discussion Rel-18 NR\_UAV

R2-2207925 NR support for UAV first steps plus Inter RAT aspects Vodafone GmbH discussion Rel-18

R2-2207935 Discussion on measurement reporting in UAV Apple discussion Rel-18 NR\_UAV-Core

R2-2208042 On measurement and reporting enhancements Ericsson discussion NR\_UAV-Core R2-2207624

R2-2208098 Measurement and reporting enhancements Qualcomm Incorporated discussion Rel-18 NR\_UAV-Core

R2-2208099 Mobility considerations and some performance results Qualcomm Incorporated discussion Rel-18 NR\_UAV-Core

R2-2208250 UAV support for NR Intel Corporation discussion Rel-18 NR\_UAV-Core

R2-2208279 Measurement reporting for UAV InterDigital discussion Rel-18 NR\_UAV-Core

R2-2208335 Measurement Report Enhancement LG Electronics Finland discussion

R2-2208336 Flight Path Information Enhancement LG Electronics Finland discussion

R2-2208412 Discussion on measurement reporting enhancements for NR UAV ZTE Corporation, Sanechips discussion Rel-18 NR\_UAV-Core

R2-2208421 Consideration on subscription-based UAV identification Huawei, HiSilicon discussion Rel-19 NR\_UAV-Core

R2-2208445 Consideration on Measurement Reporting for UAV CMCC discussion Rel-18 NR\_UAV-Core

R2-2208469 Discussion on measurement reporting for NR UAV Xiaomi discussion

R2-2208608 Discussion on enhancements on measurement reports for NR UAV Samsung Electronics Co., Ltd discussion Rel-18 NR\_UAV-Core

## 8.9 Enhanced NR Sidelink Relay

(NR\_SL\_relay\_enh-Core; leading WG: RAN2; REL-18; WID: RP-221262)

Time budget: 1 TU

Tdoc Limitation: 3 tdocs

### 8.9.1 Organizational

Including incoming LSs and rapporteur inputs.

R2-2208345 Work plan for NR sidelink relay enhancements LG Electronics France Work Plan Rel-18 NR\_SL\_relay\_enh-Core

### 8.9.2 UE-to-UE relay

Single-hop Layer-2 and Layer-3 UE-to-UE relay for unicast. Focus for this meeting is on the common L2/L3 parts: relay discovery and (re)selection. Tdocs on other aspects of the objective may be submitted but will not be treated at this meeting.

R2-2207077 Discussion on NR sidelink UE-to-UE relay OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2207126 Discovery and Relay (re-)selection for UE-to-UE relay Qualcomm Incorporated discussion NR\_SL\_relay\_enh-Core

R2-2207170 Connection management and procedures for L2 UE-to-UE relay MediaTek Inc. discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2207182 Discussion on U2U relay discovery and relay selection Xiaomi discussion

R2-2207198 Discussion on U2U relay discovery and (re)selection ZTE discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2207239 Discussion on Sidelink U2U Relay Discovery and (Re-)Selection Fraunhofer IIS, Fraunhofer HHI discussion Rel-18 NR\_SL\_relay\_enh, NR\_SL\_relay\_enh-Core

R2-2207252 Design aspects of relay selection and reselection for U2U relay Ericsson discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2207278 Discovery and reselection with UE-to-UE relaying Intel Corporation discussion Rel-18 NR\_SL\_relay-Core

R2-2207336 Basic aspects for U2U Relay work Lenovo discussion NR\_SL\_relay\_enh-Core Late

R2-2207457 Discussion on U2U Relay Discovery and Relay (Re)-selection Apple discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2207520 Discussion on U2U Relay Discovery and (Re)selection CATT discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2207644 Discussion on mechanisms to support UE-to-UE relay China Telecom discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2207653 Consideration for UE-to-UE relay operation LG Electronics France discussion Rel-18

R2-2207686 Discussion on relay discovery and (re)selection for U2U relay Spreadtrum Communications discussion Rel-18

R2-2207729 Overall views on U2U sidelink relay Samsung R&D Institute UK discussion

R2-2207838 UE-to-UE relay cell reselection and Relay UE DRX Sony discussion Rel-18 NR\_SL\_relay\_enh

R2-2207860 Scenarios that require UE-to-UE relay (re)selection Sharp discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2207861 UE-to-UE relay discovery and (re)selection Sharp discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2208005 Clarifications on the scope of SL based U2U Relay Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2208039 Initial considerations for U2U L2 relay CP operations Kyocera discussion

R2-2208041 Initial considerations for U2U relay discovery and (re)selection Kyocera discussion

R2-2208083 Discussion on L2 and L3 U2U relay vivo discussion

R2-2208151 Discovery and Relay Selection for UE-to-UE Relays InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2208427 Consideration on U2U relay CMCC discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2208489 Discussion on UE-to-UE relay Huawei, HiSilicon discussion Rel-18 NR\_SL\_relay\_enh-Core

### 8.9.3 Service continuity enhancements for L2 UE-to-network relay

Inter-gNB direct/indirect path switching; intra-gNB indirect/indirect path switching; and inter-gNB indirect/indirect path switching, to be supported by reuse of solutions for the other scenarios.

R2-2207078 Discussion on further enhancement of U2N service continuity OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2207133 Service continuity for UE-to-Network relay Qualcomm Incorporated discussion NR\_SL\_relay\_enh-Core

R2-2207169 Service Continuity Enhancement for Sidelink Relay MediaTek Inc. discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2207181 Discussion on service continuity enhancement Xiaomi discussion

R2-2207199 Discussion on Service continuity enhancement for U2N relay ZTE discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2207220 Service Continuity Enhancements for Layer-2 UE-to-Network Relays Ericsson España S.A. discussion Rel-18

R2-2207279 Service continuity enhancements for L2 U2N relaying Intel Corporation discussion Rel-18 NR\_SL\_relay-Core

R2-2207420 Discussion on Service continuity enhancement of L2 U2N relay Apple discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2207521 Service Continuity Enhancements for L2 U2N Relay CATT discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2207642 Discussion on service continuity enhancements for L2 U2N relay China Telecom discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2207652 Service continuity enhancements for L2 U2N relay LG Electronics France discussion Rel-18

R2-2207687 Service continuity enhancements support for L2 U2N relay Spreadtrum Communications discussion Rel-18

R2-2207700 Discussion on Service continuity in U2N relay case Lenovo discussion Rel-18

R2-2207839 Service continuity enhancements for UE sidelink relay Sony discussion Rel-18 NR\_SL\_relay\_enh

R2-2207963 Considerations on Service Continuity Enhancement NEC Corporation discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2208006 Discussion on service continuity enhancement for L2 U2N relay Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2208082 On service continuity enhancement for L2 U2N relay vivo discussion

R2-2208158 U2N Relay UE operation Threshold Conditions: Impact of UE Mobility Philips International B.V. discussion Rel-18 NR\_SL\_relay\_enh-Core R2-2109823

R2-2208229 Discussion on Service Continuity Huawei, HiSilicon discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2208260 Service continuity enhancement for L2 U2N relay Samsung discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2208428 Service continuity on U2N relay CMCC discussion Rel-18 NR\_SL\_relay\_enh-Core

### 8.9.4 Multi-path relaying

Study the benefit and potential solutions for multi-path support to enhance reliability and throughput. Includes the cases where a UE is connected to the same gNB using one direct path and one indirect path via 1) Layer-2 UE-to-Network relay, or 2) via another UE (where the UE-UE inter-connection is assumed to be ideal).

R2-2207015 Discussion on multi-path SL relay OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2207137 Initial discussion on multi-path operation for UE-to-Network relay Qualcomm Incorporated discussion NR\_SL\_relay\_enh-Core

R2-2207180 Discussion on multi-path Xiaomi discussion

R2-2207187 Initial consideration on the multi-path relaying ZTE, Sanechips discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2207221 Multipath Support with Direct path and Indirect path Ericsson España S.A. discussion Rel-18

R2-2207280 Discussion on Multi-path Relaying Intel Corporation discussion Rel-18 NR\_SL\_relay-Core

R2-2207361 Multipath support for remote UE MediaTek Beijing Inc. discussion Rel-18

R2-2207458 Discussion on multi-path support Apple discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2207522 Discussion on Multi-path CATT discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2207643 Discussion on multi-path support to enhance reliability and throughput China Telecom discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2207688 Discussion on multi-path relaying Spreadtrum Communications discussion Rel-18

R2-2207701 Discussion on Multi-path relaying Lenovo discussion Rel-18

R2-2207840 Multi-path relaying discussion Sony discussion Rel-18 NR\_SL\_relay\_enh

R2-2207847 Discussion on multipath for sidelink relay enhancement Samsung discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2207862 benefit of multi-path relay Sharp discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2207964 Considerations on Multipath of Sidelink Relay NEC Corporation discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2208081 Multi-path UE aggregation on PC5 and Ideal-link vivo discussion

R2-2208152 Scenarios, Use Cases, and Protocol Architecture for Multi-path InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2208153 Design Aspects for Multi-path InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2208154 Considerations on reliability and throughput for multi-path Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2208349 Multi-path relaying for NR sidelink relay enhancements LG Electronics France discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2208429 Multi-path and UE aggregation CMCC discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2208488 Discussion on Rel-18 multi-path via SL relay and UE aggregation Huawei, HiSilicon discussion Rel-18 NR\_SL\_relay\_enh-Core

## 8.10 IDC enhancements for NR and MR-DC

(NR\_IDC\_enh-Core; leading WG: RAN2; REL-18; WID: RP-221281)

Time budget: 1 TU

Tdoc Limitation: 2 tdocs

This WI expects to address interference between 3GPP (including various MR-DC architectures, i.e. NR-DC and EN-DC) and non-3GPP RAT (e.g. WiFi). Note: Enhancements to FDM solution is prioritized. LTE IDC solution should be considered as the baseline for the solutions developed in this WI.

### 8.10.1 Organizational

LS in. Rapporteur Input

R2-2207161 Clarification on the IDC scope ZTE Corporation, Sanechips discussion Rel-18 NR\_IDC\_Enh-Core

R2-2207803 Work Plan for Rel-18 IDC Xiaomi discussion Rel-18 NR\_IDC\_Enh-Core

### 8.10.2 FDM solution enhancements

Enhancements to FDM solution, to allow more granular indication of affected frequencies (e.g. granularity of BWP or PRB level).

R2-2207162 Consideration on the FDM enhancement ZTE Corporation, Sanechips discussion Rel-18 NR\_IDC\_Enh-Core

R2-2207469 Discussion on FDM solution enhancements for IDC OPPO discussion Rel-18 NR\_IDC\_Enh-Core

R2-2207539 Discussion on FDM solution enhancements Sharp discussion

R2-2207556 Assistance information for FDM Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_IDC\_Enh-Core

R2-2207804 Discussion on the IDC FDM solutions Xiaomi discussion Rel-18 NR\_IDC\_Enh-Core

R2-2207844 Discussion on FDM solution for in-device co-existence interference avoidance Samsung discussion Rel-18 NR\_IDC\_Enh-Core

R2-2207936 Discussion on FDM solution in IDC Apple discussion Rel-18 NR\_IDC\_Enh-Core

R2-2207968 Enhanced FDM solution for IDC Intel Corporation discussion Rel-18 NR\_IDC\_Enh-Core

R2-2208116 FDM Solutions in IDC Qualcomm Incorporated discussion Rel-18

R2-2208135 FDM solution for IDC Ericsson discussion Rel-18 NR\_IDC\_Enh-Core

R2-2208230 Discussion on FDM enhancement Huawei, HiSilicon discussion Rel-18 NR\_IDC\_Enh-Core

R2-2208396 Discussion on FDM solution for R18 IDC vivo discussion Rel-18 NR\_IDC\_Enh-Core

R2-2208524 IDC FDM solution LG Electronics discussion Rel-18

### 8.10.3 TDM solution

Introduction of TDM solution (e.g. indication of UE preferred TDM pattern for UL/DL).
Note: The TDM solution is considered complementary to the FDM solution.

R2-2207379 TDM Assistance Information for IDC Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_IDC\_Enh-Core

R2-2207718 TDM solution for IDC problem Lenovo discussion Rel-18

R2-2207805 Candidate TDM solutions for IDC Xiaomi discussion Rel-18 NR\_IDC\_Enh-Core

R2-2207845 Discussion on TDM solution for in-device co-existence interference avoidance Samsung discussion Rel-18 NR\_IDC\_Enh-Core

R2-2207937 Discussion on TDM solution in IDC Apple discussion Rel-18 NR\_IDC\_Enh-Core

R2-2207969 TDM solution for IDC Intel Corporation discussion Rel-18 NR\_IDC\_Enh-Core

R2-2208113 TDM Solution for NR IDC Ericsson discussion Rel-18 NR\_IDC\_Enh-Core

R2-2208118 TDM Solutions in IDC Qualcomm Incorporated discussion Rel-18

R2-2208231 Discussion on TDM solution for NR IDC Huawei, HiSilicon discussion Rel-18 NR\_IDC\_Enh-Core

R2-2208397 Discussion on TDM solution for IDC vivo discussion Rel-18 NR\_IDC\_Enh-Core

R2-2208525 IDC TDM solution LG Electronics discussion Rel-18

## 8.11 Enhancements of NR Multicast and Broadcast Services

(NR\_MBS\_enh-Core; leading WG: RAN2; REL-18; WID: RP-221458)

Time budget: 0.5 TU

Tdoc Limitation: 2 tdocs

### 8.11.1 Organizational

LS in, rapporteur input etc.

R2-2206965 UE capabilities for MBS (S2-2203020; contact: Qualcomm) SA2 LS in Rel-18 FS\_5MBS\_Ph2 To:RAN1 Cc:RAN, RAN2, RAN3

R2-2206973 Reply LS on UE capabilities for MBS (RP-221861; contact: Qualcomm) RAN LS in Rel-18 FS\_5MBS\_Ph2 To:SA2 Cc:RAN1, RAN2, RAN3

R2-2207770 Rel-18 NR MBS enhancement workplan CATT Work Plan Rel-18 NR\_MBS\_enh-Core

### 8.11.2 Multicast reception in RRC\_INACTIVE

Specify support of multicast reception by UEs in RRC\_INACTIVE state [RAN2, RAN3], PTM configuration for UEs receiving multicast in RRC\_INACTIVE state [RAN2]. Study the impact of mobility and state transition for UEs receiving multicast in RRC\_INACTIVE. (Seamless/lossless mobility is not required) [RAN2, RAN3]

R2-2206987 Discussion on supporting group scheduling for RRC\_INACTIVE UEs FGI discussion

R2-2206988 Multicast reception in RRC\_INACTIVE state TD Tech Ltd discussion Rel-18

R2-2206997 Discussion on multicast reception in RRC\_INACTIVE state OPPO discussion Rel-18 NR\_MBS\_enh

R2-2207047 Considerations for Multicast Reception in RRC\_INACTIVE Samsung discussion Rel-18

R2-2207191 Discussion on RAN based Notification Area for Multicast Mobility in RRC Inactive State TCL Communication Ltd. discussion Rel-18

R2-2207204 Overview considerations on Multicast reception in RRC\_INACTIVE NEC Europe Ltd discussion Rel-18 NR\_MBS\_enh-Core

R2-2207227 Supporting Multicast Reception in RRC\_INACTIVE vivo discussion Rel-18 NR\_MBS\_enh-Core

R2-2207318 Discussion on possible approaches to support multicast for inactive UEs Futurewei discussion Rel-18 NR\_MBS\_enh-Core

R2-2207412 State transition for UEs receiving Multicast in RRC\_INACTIVE state TCL Communication Ltd. discussion

R2-2207415 PTM configuration for UEs receiving Multicast in RRC\_INACTIVE state TCL Communication Ltd. discussion

R2-2207447 Multicast reception in RRC\_INACTIVE state Apple discussion Rel-18 NR\_MBS\_enh-Core

R2-2207481 Considerations on the multicast reception in RRC\_INACTIVE Beijing Xiaomi Software Tech discussion Rel-18

R2-2207557 MBS inactive principles Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_MBS\_enh-Core

R2-2207566 Discussion on multicast enhancement for RRC INACTIVE state MediaTek inc. discussion Rel-18 NR\_MBS\_enh-Core

R2-2207588 Multicast reception in RRC\_INACTIVE Huawei, HiSilicon discussion Rel-18 NR\_MBS\_enh-Core

R2-2207689 Discussion on Multicast Reception in RRC\_INACTIVE Spreadtrum Communications discussion Rel-18

R2-2207698 PTM configuration for multicast reception in RRC\_INACTIVE Lenovo discussion Rel-18

R2-2207699 Mobility and state transition for multicast reception in RRC\_INACTIVE Lenovo discussion Rel-18

R2-2207720 Mobility of UEs receiving multicast in RRC\_INACTIVE state CANON Research Centre France discussion Rel-18 NR\_MBS\_enh-Core

R2-2207730 PTM Configuration in RRC\_INACTIVE SHARP Corporation discussion NR\_MBS\_enh-Core

R2-2207771 Discussion on multicast reception in RRC\_INACTIVE CATT, CBN discussion Rel-18 NR\_MBS\_enh-Core

R2-2208093 MBS multicast reception in RRC\_INACTIVE Ericsson discussion Rel-18 NR\_MBS\_enh-Core

R2-2208096 Multicast reception by UEs in RRC\_INACTIVE state Qualcomm Incorporated discussion Rel-18 NR\_MBS\_enh-Core

R2-2208289 Multicast reception in RRC INACTIVE Kyocera discussion Rel-18

R2-2208312 Multicast reception in RRC\_INACTIVE LG Electronics Inc. discussion Rel-18

R2-2208374 MBS support in RRC\_INACTIVE InterDigital, Inc. discussion Rel-18 NR\_MBS\_enh-Core

R2-2208441 Initial consideration on multicast reception in RRC\_INACTIVE CMCC discussion Rel-18 NR\_MBS\_enh-Core

R2-2208499 Multicast reception in RRC\_INACTIVE Intel Corporation discussion Rel-18 NR\_MBS\_enh-Core

R2-2208520 Discussion on user plane aspects for support of multicast in RRC\_INACTIVE LG Electronics Inc. discussion Rel-18 NR\_MBS\_enh-Core

R2-2208633 Multicast reception in RRC\_INACTIVE ZTE, Sanechips discussion Rel-18 NR\_MBS\_enh-Core

### 8.11.3 Shared processing for MBS broadcast and Unicast reception

Specify Uu signalling enhancements to allow a UE to use shared processing for MBS broadcast and unicast reception, i.e., ‎including UE capability and related assistance information reporting regarding simultaneous unicast reception in RRC\_CONNECTED and MBS broadcast reception from the same or different operators [RAN2]

R2-2206989 Simultaneous unicast reception and MBS broadcast reception TD Tech Ltd discussion Rel-18

R2-2206990 A new MCCH transmission method Chengdu TD Tech, TD Tech discussion Rel-18

R2-2206991 MBS reception interruption problem in LTE and NR TD Tech Ltd discussion Rel-18 Withdrawn

R2-2206998 Discussion on support of FTA in NR OPPO discussion Rel-18 NR\_MBS\_enh

R2-2207014 MBS reception interruption problem in LTE and NR Chengdu TD Tech, TD Tech discussion Rel-18

R2-2207184 Discussion on UE shared Processing for Broadcast and Unicast Services Reception TCL Communication Ltd. discussion Rel-18

R2-2207228 Supporting Shared Processing for MBS Broadcast and Unicast vivo discussion Rel-18 NR\_MBS\_enh-Core

R2-2207448 Sharing processing of MBS broadcast and unicast reception Apple discussion Rel-18 NR\_MBS\_enh-Core

R2-2207567 Discussion on broadcast coexistence and signaling enhancement MediaTek inc. discussion Rel-18 NR\_MBS\_enh-Core

R2-2207589 Discussion on shared processing for MBS broadcast and unicast reception Huawei, CBN, HiSilicon discussion Rel-18 NR\_MBS\_enh-Core

R2-2207690 Discussion on shared processing for MBS broadcast and Unicast Reception Spreadtrum Communications discussion Rel-18

R2-2207772 Discussions on shared processing for MBS broadcast and unicast reception CATT, CBN discussion Rel-18 NR\_MBS\_enh-Core

R2-2207808 Discussion on shared processing for MBS broadcast and unicast reception Xiaomi discussion Rel-18 NR\_MBS\_enh-Core

R2-2208092 MBS broadcast and unicast reception with shared resources Ericsson discussion Rel-18 NR\_MBS\_enh-Core

R2-2208097 Shared processing for MBS broadcast and unicast reception Qualcomm Incorporated discussion Rel-18 NR\_MBS\_enh-Core

R2-2208182 Shared processing for MBS broadcast and unicast reception Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_MBS\_enh-Core

R2-2208290 Shared processing for simultaneous reception of MBS and unicast Kyocera discussion Rel-18

R2-2208442 Discussion on shared processing for broadcast and unicast reception CMCC discussion Rel-18 NR\_MBS\_enh-Core

R2-2208548 Shared processing for simultaneous MBS broadcast and Unicast reception Intel Corporation discussion Rel-18 NR\_MBS\_enh-Core

R2-2208591 Uu Signaling Enhancements for MBS Samsung discussion Rel-18 NR\_MBS\_enh-Core

R2-2208634 On shared processing for MBS broadcast and Unicast reception ZTE, Sanechips discussion Rel-18 NR\_MBS\_enh-Core

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

( NR\_mobile\_IAB -Core; leading WG: RAN3; REL-18; WID: RP-221815)

Time budget: 0.5 TU

Tdoc Limitation: 2 tdocs

* [AT119-e][031][IAB18] (Qualcomm)

 Scope: Based on the input/proposals to this meeting, the WID, and the online discussion, the rapporteur is asked to carefully select a limited number of points / sub-topics that are interesting from R2 point of view Can discuss: whether there is a possible way forward, an issue that need to be resolved etc. If applicable can also identify points to ask other group(s) in an LS out.

 Intended outcome: Report, identifying, possible agreements/ways forward, issues that need to be resolved, points to be excluded, with <= **5** proposals.

 Deadline: In time for short CB W2 Friday

*Chair: Note that the bar is high for identifying FFSes, issues that need to be resolved for this WI. R2 should only work on core Uu functionality that is essential for this WI. After more R3 progress there will be plenty of concrete points to look at.*

[R2-2209090](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CTSGR2_119-e%5CDocs%5CR2-2209090.zip) Report of [AT119-e][031][IAB18] (Qualcomm) Qualcomm

DISCUSSION

- MITRE ok with all Proposals

P1

- Xiaomi wonder if Bcast enahncements is really needed, should use the wording if.

- Ericsson think we should make the proposal more generic, may be benefits for other RRC procedure.

- Samsung think there is an assumption that a UE need to identify whether it is an onboard UE on not. Chair proposes to not discussed this at current meeting (already an if was added based on Xiaomis comment).

- HW and Nokia think we should remove from including

- ZTE think we should focus on the relative speed, remove onboard etc.

- Apple think we should keep the including parts .. they are significant ..

P2

- LG think we have IAB node indication in MSG5, think we should consider F1 indication for the additional indication.

- Fujitsu think this indication is about real time mobility state rather than capability, thus the MT should report this.

- QC thought this is a low hanging fruit. Can we assume this is done by RRC? R3 already agreed something. HW think IAB indication + mobility state could be an indication, no need to further study.

P3

- Ericsson wonder if we should ask R1 some feedback or wait for R3. Chair also wonder if this is related to R2 procedures.

- vivo think we need to involve R1 and R3 asap.

P4

- LGE suggest to remove solutions from this proposal. Chair think ANR is the method we have from legacy, so maybe the text makes sense.

- Nokia think this is going beyond R3 decisions. R3 decided that existing mechanisms can be used. Should wait for R3 progress. Ericsson agrees.

- vivo think current function are just examples.

- Apple think there is R2 work and we can keep this.

P5

- ZTE think this is rather R1/R3 scope, and can be removed from R2 perspective.

- QC think that RAN3 will not ask RAN1 tro do anything, and RAN1 will not take own initiatives, so RAN2 can initiate Uu performance related parts.

* The following Points are Endorsed, i.e. for the plan for next meeting (after one round of discussion at R2 119-e):

P1: RAN2 to discuss scenarios, if and where enhancements to cell (re-)selection to/from the mobile IAB-node apply, e.g. based on mobile IAB-node broadcast parameter (this point doesn’t preclude other potential usage of Bcast info).

P2: Can discuss whether The mobile IAB-MT need to send a mobile-IAB indication (capability or mobility) to the IAB-donor-CU,

P3: For “dual-DU-way” of doing full migration, RAN2 may discuss whether the legacy UE should see the two logical cells/DUs as separate or same physical cell(s), and what procedure(s) the legacy UE needs to perform in either case.

P4: RAN2 may discuss whether there are issues with PCI partitioning that needs to/can be addressed (to be used in applicable scenario), if any found within R2 scope. May discuss need for and feasibility from R2 point of view of a dynamic PCI change mechanism. May also discuss whether enhancements to/vs current UE/MT reporting are useful/necessary to improve PCI collision detection.

P5: RAN2 may discuss whether there is a problem of RACH configuration collision between mobile IAB and stationary network from RAN2 perspective and/or whether RAN2 should ask RAN1 to consider RAN1-related aspects.

### 8.12.1 Organizational

Ls in Rapporteur input etc

R2-2207282 Workplan for Rel-18 mobile IAB Qualcomm Inc. (Rapporteur) Work Plan Rel-18 NR\_mobile\_IAB

- QC point out that full migration need to be re-agreed by R3 but we can make assumptions

* noted

### 8.12.2 Mobility Enhancements

Enhancements for mobility of an IAB-node together with its served UEs, including aspects related to group mobility. No optimizations for the targeting of surrounding UEs. [RAN3, RAN2]

Basic Aspects

R2-2207128 Mobile IAB mobility enhancement Huawei, HiSilicon discussion Rel-18 NR\_mobile\_IAB-Core

DISCUSSION

P2

- Ericsson think it is too early to decide, SA2 are working on this. QC prefer to skip thie.

- P3

- Ericsson think we need to confirm with R1

* The method of not broadcasting “iab-Support” indication, is sufficient to prevent other IAB-node from accessing mobile IAB (without further spec impact).
* R2 assumes RACH-less procedure may be considered for on-board RRC\_CONNECTED UEs, which are to be handed over together with the mobile IAB-node (would depend also on the assumptions for UL synch).

Group Mobility

R2-2208268 Group mobility in mobile IAB InterDigital, Inc. discussion Rel-18 NR\_mobile\_IAB-Core

* Noted

R2-2208103 Mobility enhancements for mIAB node Ericsson discussion

* Noted

DISCUSSION on the two docs above

- HW think that CHO-like solution could be dependent on L1L2 mobility. HW point out that we don’t have UE mobility modification for this WI.

- Ericsson: Observation: having separate Preparation and execution could also be a principle for the Mobile IAB node

- Samsung think that delayed RRC reconfiguration could also be a method.

- Chair: there is also a requirement to support legacy UEs.

* R2 assumes that CHO or delayed RRC config could be the baseline for group mobility (FFS if could be applicable for mobility of IAB MT), i.e. with a preparation in advance (not immediately) of the execution.

R2-2208523 Concurrent UE handovers resulting from IAB node full migration LG Electronics discussion Rel-18

R2-2208292 UE handover aspects for mobile IAB Kyocera discussion Rel-18

R2-2207121 Mobility Enhancement of mobile IAB-node and served UEs Intel Corporation discussion Rel-18 NR\_mobile\_IAB-Core

TAU RNAU

R2-2207186 Discussion on group mobility of UEs served by mobile IAB ZTE, Sanechips discussion Rel-18 NR\_mobile\_IAB-Core

R2-2207283 Enhancements for IAB-node mobility Qualcomm Inc. discussion Rel-18 NR\_mobile\_IAB

General

R2-2207816 Discussion on the enhancement of IAB node mobility Samsung R&D Institute UK discussion

R2-2207421 Discussion on mobility enhancement in mobile IAB Apple discussion Rel-18 NR\_mobile\_IAB-Core

R2-2207708 Mobility enhancements for mobile IAB-node and its served UE Lenovo discussion Rel-18

R2-2207826 Mobility enhancement for mobile IAB Sony discussion Rel-18 NR\_mobile\_IAB

R2-2208242 IAB mobility Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_mobile\_IAB-Core

R2-2208267 Mobility state of an IAB cell InterDigital, Inc. discussion Rel-18 NR\_mobile\_IAB-Core

Cell reselection

R2-2208459 Discussion on mobile IAB vivo discussion Rel-18

### 8.12.3 Other

Define Procedures for migration/topology adaptation to enable IAB-node mobility, including inter-donor migration of the entire mobile IAB-node (full migration) [RAN3, RAN2]. Mitigation of interference due to IAB-node mobility, including the avoidance of potential reference and control signal collisions (e.g. PCI, RACH). [RAN3, RAN2]. Also At the beginning of the work period, RAN3, RAN2 should discuss the potential complexity of a scenario where a mobile IAB node connects to a stationary (intermediate) IAB node, with respect to the scenario where a mobile IAB node connects directly to an IAB-donor.

Multi-hop

Note in the WID

R2-2207124 Discussion on multi-hop scenario for mobile IAB-node Intel Corporation, Qualcomm, Huawei, Ericsson, Nokia, InterDigital discussion Rel-18 NR\_mobile\_IAB-Core

DISCUSSION

- AT&T prefer that enhancements/optimizations could be judged case by case. Samsung agrees that the wording is too strong, and would not like to rule out certain solutions right now

- Intel, Verizon and some other want to clarify that enhancemetns are deprioritzed.

- Chair: OK such enhancements are deprioritized.

* R2 assumes that Mobile IAB connecting to a stationary (intermediate) IAB node is/can be supported. R2 assumes this can be supported with no (or limited) impact.

R2-2208514 Consideration on potential complexity of a scenario LG Electronics Inc. discussion Rel-18 NR\_mobile\_IAB-Core

Assumptions on full migration

R2-2207129 Full migration and interference mitigation Huawei, HiSilicon discussion Rel-18 NR\_mobile\_IAB-Core

* Noted

R2-2207122 Discussion on Migration and PCI handling of mobile IAB-node Intel Corporation discussion Rel-18 NR\_mobile\_IAB-Core

* Noted

DISCUSSION on full migration

- Chair: this is just an initial exchange of understandings and views to get on the same page. RAN3 will need to progress on full migration for a better baseline.

- Ericsson think we can maybe list the different options, but better to wait For R3. Think group mobility can be different dep on R3 decisions.

- AT&T think a main difference is that these migrations need to happen fast. Are targeting FR2. LG agrees that the time criticality is a major aspect.

- QC think A and B reflect the papers submitted.

- Huawei think the two understandings are not mutually exclusive. Think B could be reestablishment, Ericsson think B is not reestablishment.

- QC point out that there is a security change, maybe something to look at

The understandings in inputs to the current meeting:

A) In the dual DU approach the CU change (from UE point of view) is done by moving UEs from one CU/DU to the other CU/DU (e.g. can be one by one, sequentially).

B) Big Bang relocation: CU + DU + All Ues are moved at the same time.

R2-2207284 Other enhancements for mobile IAB Qualcomm Inc. discussion Rel-18 NR\_mobile\_IAB

R2-2207185 Discussion on topology adaptation in mobile IAB scenario ZTE, Sanechips discussion Rel-18 NR\_mobile\_IAB-Core

R2-2207422 Discussion on RAN2 aspects of inter-donor full migration and mitigation of interference in mobile IAB Apple discussion Rel-18 NR\_mobile\_IAB-Core

R2-2207627 mIAB - other key issues Samsung R&D Institute UK discussion

General

R2-2207709 Discussion on inter-donor full migration of mobile IAB Lenovo discussion Rel-18

R2-2208291 Scenarios on mobile IAB topology Kyocera discussion Rel-18

PCI RACH collision

R2-2207827 PCI collision in mobile IAB Sony discussion Rel-18 NR\_mobile\_IAB

R2-2208104 On Migration and Interference mitigation Ericsson discussion

R2-2208251 Consideration on PCI collisions for Mobile IAB Sharp discussion Rel-18

## 8.13 Further enhancement of data collection for SON MDT in NR and EN-DC

(NR\_ENDC\_SON\_MDT\_enh2-Core; leading WG: RAN3; REL-18; WID: RP-221825)

Includes LS in’s related to AI/ML for NG-RAN

Time budget: 1 TU

Tdoc Limitation: 4 tdocs

### 8.13.1 Organizational

Ls in Rapporteur input.

R2-2208452 Work plan for Further Enhancement of Data Collection for SON\_MDT in NR standalone and MR-DC WI CMCC Work Plan Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

### 8.13.2 Data collection for MRO for MR DC SCG failure and Inter-system handover for voice fallback.

Focus on UE impact

R2-2207093 Discussion on MRO of inter-system HO voice fallback OPPO discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2207192 Discussion on MRO enhancement for inter-system handover for voice fallback NTT DOCOMO, INC. discussion Rel-18

R2-2207193 Discussion on MRO for MR-DC SCG failure scenario and fast MCG recovery failure NTT DOCOMO, INC. discussion Rel-18

R2-2207476 Data for MRO related Enhancements CATT discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2207704 MRO for inter-system handover for voice fallback Lenovo discussion Rel-18

R2-2207954 Discussion on the inter-system handover for voice fallback Huawei, HiSilicon discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2207955 Discussion on MR-DC SCG failure Huawei, HiSilicon discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2208157 Data collection for MRO for MR-DC SCG failures and inter-system handover for voice fallback Qualcomm Incorporated discussion Rel-18

R2-2208177 On Mobility Robustness Optimization Ericsson discussion NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2208436 Discussion on inter-system handover for voice fallback CMCC discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2208542 Consideration on MRO for EPS fallback via HO and MRDC SCG failure ZTE Corporation, Sanechips discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2208583 Discussion on MRO for MR-DC SCG failure and inter-system handover voice fallback Xiaomi discussion Rel-18

R2-2208610 UE reporting to enhance mobility parameter tuning Samsung R&D Institute India discussion

### 8.13.3 Miscellaneous SON MDT enhancements

Determine and consolidate RAN2 impacts for Support of SON/MDT enhancements for [RAN3, RAN2]: MR-DC CPAC, Successful PScell change report, Successful Handover Report (e.g. inter-RAT), NPN, RACH report, fast MCG recovery, NR-U (MRO and UL MLB)

R2-2207091 Discussion of SON on MR-DC CPAC OPPO discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2207092 SON on fast MCG recovery OPPO discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2207196 Discussion on SON for MR-DC CPAC NTT DOCOMO, INC. discussion Rel-18

R2-2207437 SON enhancements for NR-U Apple discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2207438 SON enhancements for RACH partitioning Apple discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2207477 General Considerations on SON MDT enhancements CATT discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2207478 Discussion on CPAC and Successful Report for Inter-RAT Handover and PSCell Change CATT discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2207705 SON enhancements for CPC and fast MCG link recovery Lenovo discussion Rel-18

R2-2207706 SON enhancements for successful PSCell change report and SHR for inter-RAT HO Lenovo discussion Rel-18

R2-2207707 MRO for handover failure or SCG failure in NR-U Lenovo discussion Rel-18

R2-2207721 Discussion on the SON/MDT enhancement for NPN and RACH report Beijing Xiaomi Software Tech discussion Rel-18

R2-2207908 SONMDT enhancements for RACH enhancements NEC discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2207909 Discussion on successful PSCell change report NEC discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2207956 Discussion on other SON enhancements Huawei, HiSilicon discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2208066 Discussion on CPAC failure information vivo discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2208067 Discussion on successful PSCell change report vivo discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2208068 Discussion on RACH report enhancement vivo discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2208159 Miscellaneous SON MDT enhancements Qualcomm Incorporated discussion Rel-18

R2-2208160 SON enhancements for NR-U Qualcomm Incorporated discussion Rel-18

R2-2208176 SON support for NPN Ericsson discussion NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2208178 Supporting NR-U in the SON/MDT framework Ericsson discussion NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2208243 On mobile IAB deployment and interference mitigation Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_mobile\_IAB-Core

R2-2208244 Impact of SNPN on MDT and MRO Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2208245 RACH report related enhancements and Fast MCG recovery optimizations Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2208246 MRO enhancements for NR-U Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2208285 SON aspects for fast MCG recovery Sharp discussion NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2208433 SONMDT enhancement for fast MCG recovery and RACH report CMCC discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2208434 Discussion on Successful PSCell change report CMCC discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2208435 SON MDT enhancement for CPA and CPC CMCC discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2208543 Consideration on miscellaneous issues on SON aspects ZTE Corporation, Sanechips discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2208544 Consideration on miscellaneous issues on MDT aspects ZTE Corporation, Sanechips discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2208572 SON/MDT enhancements for dual connectivity scenarios Samsung R&D Institute India discussion

R2-2208584 Discussion on Miscellaneous SON MDT enhancements Xiaomi discussion Rel-18

R2-2208603 Various SON/MDT Enhancements Samsung R&D Institute India discussion

R2-2208661 Discussion on UE RACH report enhancements China Telecom discussion

### 8.13.4 Other

E.g. Support of signaling based logged MDT override protection to address the scenario where the signaling based MDT is configured in E-UTRAN when [RAN2, RAN3]: UE reselects to NR while logged measurements are collected, UE reselects to NR after logged measurements are collected and before uploading the logged MDT report.

R2-2207479 Consideration on Inter-RAT Signaling Based Logged MDT Override Protection CATT discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2207480 Considerations on the signaling based logged MDT override protection for E-UTRAN Beijing Xiaomi Software Tech discussion Rel-18

R2-2207957 Discussion on the inter-system signalling based MDT override protection Huawei, HiSilicon discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2208161 Signalling based logged MDT override protection Qualcomm Incorporated discussion Rel-18

R2-2208179 inter-RAT signalling based logged MDT protection Ericsson discussion NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2208247 Signalling based logged MDT override protection in Rel-18 Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

R2-2208535 Inter-RAT signaling based logged MDT override protection Samsung R&D Institute India discussion Withdrawn

R2-2208536 Inter-RAT signaling based logged MDT override protection Samsung R&D Institute India discussion

R2-2208545 Consideration on Signalling based MDT protection ZTE Corporation, Sanechips discussion Rel-18 NR\_ENDC\_SON\_MDT\_enh2-Core

## 8.14 Enhancement on NR QoE management and optimizations for diverse services

(NR\_QoE\_enh-Core; leading WG: RAN3; REL-18; WID: [RP-221803](https://www.3gpp.org/ftp/tsg_ran/TSG_RAN/TSGR_96/Docs/RP-221803.zip))

Time budget: 0.5 TU

Tdoc Limitation: 2 tdocs

### 8.14.1 Organizational

Including LSs and any rapporteur inputs (e.g. work plan

R2-2208619 Work Plan for Rel-18 NR QoE Enhancement China Unicom Work Plan Rel-18 NR\_QoE\_enh

### 8.14.2 QoE measurements in RRC\_IDLE INACTIVE

including discussion on QoE measurements for RRC\_IDLE/INACTIVE for MBS broadcast services.

R2-2207026 QoE measurement collection for IDLE and Inactive state Qualcomm Incorporated discussion NR\_QoE\_enh-Core

R2-2207427 IDLE/INACTIVE Mode QoE Measurements and Reporting Apple discussion Rel-18 NR\_QoE\_enh-Core

R2-2207532 Considerations on QoE measurements in RRC\_IDLE and RRC\_INACTIVE Lenovo discussion Rel-18 NR\_QoE\_enh-Core

R2-2207725 Discussion on QoE for MBS Ericsson discussion Rel-17 NR\_QoE\_enh-Core

R2-2207822 Discussion on MBS broadcast services CATT discussion Rel-18 NR\_QoE\_enh-Core

R2-2207992 QoE measurements for MBS broadcast services Huawei, HiSilicon discussion Rel-18 NR\_QoE\_enh-Core

R2-2208248 QMC enhancements for NR MBS Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_QoE\_enh-Core

R2-2208391 QoE measurement in RRC\_IDLE and RRC\_INACTIVE Samsung discussion Rel-18

R2-2208423 Discussion on QoE measurement in RRC\_IDLE and RRC\_INACTIVE CMCC discussion Rel-18 NR\_QoE\_enh-Core

R2-2208615 Discussion on Rel-18 QoE measurement ZTE Corporation, Sanechips discussion Rel-18 NR\_QoE\_enh-Core

R2-2208622 Discussion on MBS configuration and reporting for NR QoE in Rel-18 China Unicom discussion Rel-18 NR\_QoE\_enh

### 8.14.3 Rel-17 leftover topics for QoE

Including discussion on Rel-17 leftover topics: Whether/how RRC should support per-slice QoE measurement configuration, RAN-visible QoE aspects, or QoE reporting for overload scenario?

R2-2207027 Discussion on Rel-17 leftover issues Qualcomm Incorporated discussion NR\_QoE\_enh-Core

R2-2207428 Views on Potential Enhancements of Existing QoE Features Apple discussion Rel-18 NR\_QoE\_enh-Core

R2-2207533 Discussion on Rel-17 leftover features for QoE Lenovo discussion Rel-18 NR\_QoE\_enh-Core

R2-2207724 Discussion on rel-17 leftovers Ericsson discussion Rel-17 NR\_QoE\_enh-Core

R2-2207823 Discussion on Rel-17 leftover issues for QoE CATT discussion Rel-18 NR\_QoE\_enh-Core

R2-2207993 Support of left-over features from Rel-17 Huawei, HiSilicon discussion Rel-18 NR\_QoE\_enh-Core

R2-2208249 QMC enhancements for RAN overload Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_QoE\_enh-Core

R2-2208392 Timing information of measured samples Samsung discussion Rel-18

R2-2208616 Discussion on Rel-17 leftover issues for QoE ZTE Corporation, Sanechips discussion Rel-18 NR\_QoE\_enh-Core

### 8.14.4 Other topics

Including any other QoE enhancement discussion (e.g. service type aspects, QoE in NR-DC, QoE continuity).

NOTE: This agenda item will not be treated in this meeting.

R2-2208613 Recommended bitrate for XR services MediaTek Beijing Inc. discussion Rel-18

R2-2208629 On RAN visible QoE parameters for new services China Telecom discussion

## 8.15 R18 Other

Misc Impacts from Other RAN WGs and TSGs (incl MC Enhancements). LS ins for Rel-18 topics that has no RAN WI.

Time budget: 0.5 TU

Tdoc Limitation: -

LS in

R2-2206962 LS on Rel-18 WI related to vehicular distributed antenna systems (S-220026; contact: LGE) S4SEM LS in Rel-18 To:RAN1 Cc:RAN, RAN2, RAN4

Chair: RAN2 is CCed.

* Noted [000]

Redcap

Offline first

* [AT119-e][024][NR18] FS\_REDCAP\_Ph2 option feasibility (Ericsson)

 Scope: Treat R2-2206967, R2-2208568, R2-2207623. Identify the points that require RAN2 reply, and identify agreeable or possible/tentative replies. Pave the way for online agreements.

 Intended outcome: Report, Draft LS out.

 Deadline: Ready for online CB W2 friday

R2-2209115 Report from [AT119-e][024][NR18] FS\_REDCAP\_Ph2 option feasibility (Ericsson) Ericsson

DISCUSSION

- VDF think R3 has sent an LS. Can send if we provide added value

- HW are ok with P2.

- QC think R2 can send LS. Agree P2.

- ZTE agree to send LS and P2 is ok, consistent with R3. Initially wanted to give more info but not possible it seems.

*Chair: in general difficult to reply in detailed way before start of a WI, but this simple reply seems agreeable.*

* send a reply LS, the following text is captured: “From RAN2 perspective, for a UE in RRC\_INACTIVE state configured with long eDRX RAN paging cycle, CN buffering solution has less RAN impact in general and is preferred”

*LS out in a post email discussion.*

* [Post119-e][024][NR18] FS\_REDCAP\_Ph2 Reply LS (Ericsson)

 Scope: Based on agreements related to [AT119-e][024], agree reply LS

 Intended outcome: Approved Reply LS out.

 Deadline: Short

[R2-2206967](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CTSGR2_119-e%5CDocs%5CR2-2206967.zip) LS On FS\_REDCAP\_Ph2 option feasibility (S2-2204989; contact: Ericsson) SA2 LS in Rel-18 FS\_REDCAP\_Ph2 To:RAN3, RAN2 Cc:CT4, CT1

* [024] Noted

[R2-2208568](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CTSGR2_119-e%5CDocs%5CR2-2208568.zip) Discussion on solutions for eDRX cycle beyond 10.24s for RedCap ZTE Corporation, Sanechips discussion Rel-18 FS\_NR\_redcap\_enh

* [024] Noted

R2-2207623 Discussion on the SA2 LS “FS\_REDCAP\_Ph2 option feasibility” for RRC\_INACTIVE eDRX Huawei, HiSilicon discussion Rel-18

* [024] Noted

Protection of SI

Offline First (modifed)

* [AT119-e][025][NR18] Protection of SI (Samsung)

 Scope: Ph1: Treat R2-2206976, R2-2207028, R2-2208460, R2-2208482, R2-2208625, Collect Comments, determine possible agreements and discussion points, progress the LS accordingly

 Ph2: Take into account online progress, agree reply LS out.

 Intended outcome: Ph1 Report, Draft LS out. Ph2 Approved LS

 Deadline: Ph2 EOM (offline only)

R2-2206976 LS out on authenticity and replay protection of system information (S3-221700; contact: CableLabs) SA3 LS in To:RAN2

Moved from 3

* Noted

R2-2208959 [AT119-e][025][NR18] Protection of SI (Samsung) Samsung

ONLINE CB

General

- Ericsson is missing a general discussion on what is best for RAN2. Proposes an alternative approach, not new SIB and not add in existing SIB, think there are alternative approaches, e.g. SI messages.

- HW think right now we just need to reply, P1-P3 sufficient, but also support P4.

P123

- vivo has issue with P1. Think that from R2 point of view we have segmentation as well.

- OPPO has concerns on P2. Is R2 really ready to introduce a new SIB? More proper to say that RAN2 need to study. Samsung think we just reply to the questions.

- Intel think that in the middle of P2, it is stated that a separate SIB is preferred .. we should remove this part. Leonovo agrees.

P4

- VDF: Last bullet need clarification, not clear what changes and not clear the last part. Samsung think there will be a validity time. VDF think then we should ask about this explicitly. Ericsson think that if SIB info is updated then sec info is updated.

- LG wonder whether we need to ask these questions. Wonder about the intention about these question. If asked then we should also explain why R2 is interested.

- QC think we should try to understand the SA3 solution better and ok to look at other solution, but try to understand.

- 2nd bullet: HW think this is too high level, can be considered the same as bullet 3.

- vivo think P4 is useful, but agree with LG and think there should be more explanation.

- MTK think P4 is important, we should not give the impression to SA3 that they can just go ahead. Think the general message that we don’t see a show stopper, but we need more info to determine R2 impact.

- TMO think there are performance impacts to evaluate as well

* Add: RAN2 expects to evaluate solutions, evaluate impacts to RRC and related performance aspects, and settle the signaling.
* Response to Q1: The physical layer imposes a limit to the maximum size a SIB can take. The maximum SIB1 or SI message, which can carry multiple SIBs, size is 2976 bits. Actual size of the existing SIBs can vary widely with configurations/deployments. SIB’s content may also evolve in the future e.g. with addition of new fields in future releases. Therefore, the available size varies per each SIB and there is no definite answer on available bytes in existing SIBs to carry security information. Currently, SIB segmentation feature is applicable to some of the SIBs and can enable larger message size (e.g. 2976 bits x 64 segments), but that may come with low performance.
* Response to Q2: RAN2 may need to define a new SIB available on demand. The new SIB could carry up to 2976 bits. It is RAN2 understanding that proposed enhancements would not be applicable to the legacy UE. At the same time, introduction/addition of security information to existing SIBs might make it difficult to introduce/deploy new features in the future.
* Response to Q3: The existing SI framework schedules SIBs by mapping SIB(s) to SI message(s). The new SIB can be mapped to a separate SI message or can be mapped together with other SIB(s) in an SI message. The existing SI framework supports flexible scheduling periodicities (which can be 80/160/320/640/1280/2560/5120 ms) for an SI message. A specific periodicity for an SI message carrying the new SIB can be selected by the network configuration. Further, network can decide when to start/stop broadcasting of the SIB by implementation. RAN2 would need a more detailed understanding of the proposed designs to form a view on what scheduling configuration would be feasible.
* RAN2 asks SA3 to provide the following information on the requirements of the security information to be broadcast

Size of the security information or feasible ranges for the size

Latency requirements for the delivery of the security information

How often and for how long the new information is expected to be sent

Whether all SI information or some part need to be protected

Whether the security information should be updated whenever any of the SIB contents change

Whether the UE should re-acquire the security information whenever it changes as well as all other SIBs

*Chair: Use the above agreements for the Reply LS, Can work on the wording of the last bullet offline. Continue in [025], offline only (offline LS approval),*

R2-2208460 Protection of system information vivo discussion Rel-18

R2-2208482 Discussion on authenticity and replay protection of system information(SA3 LS) Huawei, HiSilicon discussion Rel-17 FS\_5GFBS

Moved from 6.24.3

R2-2208625 Discussion on system information security Ericsson discussion Rel-18

* [025] 3 tdocs above are noted

R2-2207028 Draft Reply LS on authenticity and replay protection of system information Samsung LS out Rel-18 To:SA3

* [025] revised

R2-2208985 Reply LS on authenticity and replay protection of system information RAN2 LS out Rel-18 To:SA3

* [025] LS out is approved (this is the final version)

MCE – UL TX switching

Offline first

* [AT119-e][026][NR18] UL Tx Switching (NTT Docomo)

 Scope: This is an initial discussion. It may be difficult to make firm agreements, but it may be possible to converge on initial assumptions, possibilities on the table. Take into account R2-2208327, R2-2208324, R2-2208107, R2-2208481, Identify on a high level the main RAN2 impacts for the UL Tx switching schemes across up to 3 or 4 bands. Identify discussion points for future meetings, including UE capability and RRC configuration related signaling (Note: strive for RAN1/2 design agnostic with the number of bands, i.e., common design between 3 and 4 bands).

 Intended outcome: Report

 Deadline: Ready for online CB W2 Tuesday

 CLOSED

R2-2208936 Summary of [AT119-e][026][NR18] UL Tx Switching (NTT Docomo) NTT DOCOMO Inc.

DISCUSSION

- Nokia think that on P1, what does it mean, use same list, or use the capabilities. Docomo think the list would be used and also think capabilities can/may be reused. Nokia think the capabilities cannot be re-used, this is just a baseline. Ericsson agrees we attempt to reuse at least the list, and maybe even capabilities. Huawei agrees as well, will attempt to reuse but need to wait for other progress.

Chair: Good discussion, can keep the proposals as is, they are just baseline assumptions.

* As a baseline, RAN2 reuse Rel-16/17 UL Tx switching band combination list (i.e. *BandCombinationList-UplinkTxSwitch-r16*) for Rel-18 UL Tx switching capability reporting.
* As a baseline, uplink bands for Rel-18 UL Tx switching are configured as in legacy way, i.e. by *UplinkConfig*.
* RAN2 waits for RAN1/4 input and then addresses the potential issues according to RAN1/4 indication, e.g.:

– whether the switching period is configured per band pair or per band combination on UE capability reporting.

– whether the switching option (i.e. switchedUL or dualUL) is configured per band pair or per band combination on UE capability reporting.

– how RRC configures a period location for each band pair within three or four bands on RRC configuration.

– how to configure a state of Tx chains after the UL Tx switching is not unique in Rel-18 framework on RRC configuration.

R2-2208327 Work plan for Multi-carrier enhancements NTT DOCOMO INC. Work Plan Rel-18

R2-2208324 Potential issues on UL Tx switching schemes across up to 3 or 4 bands NTT DOCOMO INC. discussion Rel-18

R2-2208107 Consideration on Rel-18 UL Tx switching capability ZTE Corporation, Sanechips discussion Rel-18 NR\_MC\_enh-Core

R2-2208481 RAN2 impact to support Rel-18 UL Tx switching enhancements Huawei, HiSilicon discussion Rel-18 NR\_MC\_enh-Core

* [026] 4 tdocs above are noted

Low Latency

This topic is handled by UP breakout session (Diana)

R2-2206963 LS on RAN feedback for low latency (S2-2201767; contact: Huawei) SA2 LS in Rel-18 FS\_5TRS\_URLLC To:RAN2 Cc:RAN1, RAN3

R2-2208134 Discussion on RAN feedback for low latency Ericsson discussion Rel-18

R2-2208007 Proposed response to SA2 LS R2-2203930 on low latency Nokia, Nokia Shanghai Bell discussion Rel-18 FS\_5TRS\_URLLC

Moved from 3

R2-2207043 Draft reply LS on RAN feedback for low latency Qualcomm Incorporated discussion Rel-18 FS\_NR\_XR\_enh

*Moved from 8.5.1*

R2-2207768 Consideration on meeting very low latency requirement in TDD ZTE Corporation, Sanechips, China Southern Power Grid Co., Ltd discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core R2-2205732

Moved from 6.5.1

R2-2207775 [DRAFT] Reply LS on RAN feedback for low latency ZTE Corporation, Sanechips LS out Rel-17 NR\_IIOT\_URLLC\_enh-Core R2-2205734 To:SA2 Cc:RAN3

Moved from 6.5.1

Positioning for Remote UEs

This Topic is handled by the Positioning breakout Session (Nathan), postponed at this meeting

R2-2208314 Positioning support for remote UEs MediaTek Inc., CATT, Huawei, HiSilicon discussion Rel-18 TEI18 R2-2207287

R2-2208315 Downlink positioning support and posSIB request for L2 UE-to-network remote UE MediaTek Inc., CATT, Huawei, HiSilicon CR Rel-18 38.331 17.1.0 3245 1 C TEI18 R2-2207288

R2-2208317 Indication to LMF of operation as a L2 UE-to-network remote UE MediaTek Inc., CATT, Huawei, HiSilicon CR Rel-18 37.355 17.1.0 0357 1 C TEI18 R2-2207289

R2-2208319 Positioning method support for L2 UE-to-network remote UE MediaTek Inc., CATT, Huawei, HiSilicon CR Rel-18 38.305 17.1.0 0104 1 C TEI18 R2-2207290

Sense

Await LS

R2-2208490 Discussion on RAN Aspects of Signal Level Enhanced Network Selection Huawei, HiSilicon discussion Rel-18

New RAN2 initiated TEI

Postpone

R2-2208216 CFRA resources for Conditional Handover Nokia, Nokia Shanghai Bell discussion Rel-18

Withdrawn or revised

R2-2207287 Positioning support for remote UEs MediaTek Inc., CATT discussion Rel-18 TEI18 Revised

R2-2207288 Downlink positioning support and posSIB request for L2 UE-to-network remote UE MediaTek Inc., CATT CR Rel-18 38.331 17.1.0 3245 - C TEI18 Revised

R2-2207167 CR on 38331 for SFN-DFN offset and PosSIB request MediaTek Inc. CR Rel-17 38.331 17.1.0 3226 - B TEI18

=> Withdrawn

R2-2207168 Positioning support for remote UEs MediaTek Inc. discussion Rel-18 TEI18

=> Withdrawn

R2-2207289 Indication to LMF of operation as a L2 UE-to-network remote UE MediaTek Inc., CATT CR Rel-18 37.355 17.1.0 0357 - C TEI18 Revised

R2-2207290 Positioning method support for L2 UE-to-network remote UE MediaTek Inc., CATT CR Rel-18 38.305 17.1.0 0104 - C TEI18 Revised

# 9Breakout session reports

No documents shall be submitted to this AI or its sub-AIs. It is only for at-meeting-generated contents.

Breakout session reports will be approved by email.

## 9.1 Session on NTN, IoT NTN, RedCap and CE

[R2-2208701](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CTSGR2_119-e%5CDocs%5CR2-2208701.zip) Report from Break-Out Session on NTN, IoT NTN, RedCap and CE Vice Chairman (ZTE) Report

## 9.2 Session on LTE legacy, 71 GHz, DCCA, Multi-SIM, RAN slicing, QoE and XR

[R2-2208702](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CTSGR2_119-e%5CDocs%5CR2-2208702.zip) Report from session on LTE legacy, 71 GHz, DCCA, Multi-SIM, RAN slicing, QoE and XR Vice Chairman (Nokia) Report

## 9.3 Session on UP, Small data, URLLC/IIoT, RACH indication, NWES and UAV

[R2-2208703](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CTSGR2_119-e%5CDocs%5CR2-2208703.zip) Report from UP, Small data, URLLC/IIoT, RACH indication, NWES and UAV Session chair (InterDigital) Report

## 9.4 Session on positioning and sidelink relay

[R2-2208704](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CTSGR2_119-e%5CDocs%5CR2-2208704.zip) Report from session on positioning and sidelink relay Session chair (MediaTek) Report

## 9.5 Session on LTE V2X and NR SL

[R2-2208705](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CTSGR2_119-e%5CDocs%5CR2-2208705.zip) Report from session on LTE V2X and NR SL Session chair (Samsung) Report

## 9.6 Session on SON/MDT

[R2-2208706](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CTSGR2_119-e%5CDocs%5CR2-2208706.zip) Report from SON/MDT session Session chair (CMCC) Report

## 9.7 Session on MBS

[R2-2208707](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CTSGR2_119-e%5CDocs%5CR2-2208707.zip) Report from MBS breakout session Session chair (Huawei) Report

## 9.8 Session on IDC

[R2-2208708](file:///C%3A%5CUsers%5Cmtk65284%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2_RL2%5CTSGR2_119-e%5CDocs%5CR2-2208708.zip) Report from IDC breakout session Session chair (Intel) Report

## 9.9 Session on NC Repeater

R2-2208709 Report from NC Repeater breakout session Session chair (Apple) Report