3GPP TSG-RAN WG2 Meeting #115 electronic R2-2xxxxxx

Online, August, 2021

Source: RAN2 Chairman (MediaTek)

Title: Skeleton Notes

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

Discussions with Deadline **Schedule 1**:

A **first round** with **Deadline for comments Thursday Aug 19 1200 UTC** to settle scope what is agreeable etc

A Final round with **Final deadline Thursday Aug 26 1200 UTC.** to settle details / agree CRs etc. Additional check points etc if needed are defined by the Rapporteur. In case some parts of an email discussion need more time, doesn’t converge, need on-line treatment etc Rapporteur please contact chair.

VOLUNTEERS For NWM discussion, pl contact Chair ASAP.

* [AT115-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 Johan’s session.

Deadline: EOM

* [AT115-e][011][NR15] User plane corrections (Huawei)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat R2-2108264, R2-2108265, R2-2108600, R2-2108601, R2-2108597, R2-2108598, R2-2108599, R2-2108782, R2-2108819, R2-2107224, R2-2107616, R2-2108844, R2-2108845,

Intended outcome: Report, agreed CRs if applicable

Deadline: Schedule 1

* [AT115-e][012][NR15] Connection Control I (OPPO)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat R2-2108368, R2-2108369, R2-2108370, R2-2108636, R2-2108637, R2-2108371, R2-2108372, R2-2107373, R2-2107374, R2-2107418, R2-2107419, R2-2108187, R2-2108188,

Intended outcome: Report, agreed CRs if applicable

Deadline: Schedule 1

* [AT115-e][013][NR15] Connection Control II (vivo)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat R2-2107375, R2-2107376, R2-2108811, R2-2108812, R2-2108185, R2-2108186, R2-2107836, R2-2107837, R2-2107570,

Intended outcome: Report, agreed CRs if applicable

Deadline: Schedule 1

* [AT115-e][014][NR15] CP Other (Huawei)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat R2-2108290, R2-2108644, R2-2108645, R2-2107022, R2-2108646, R2-2108647, R2-2107377, R2-2107378, R2-2107573, R2-2108571

Intended outcome: Report, agreed CRs if applicable

Deadline: Schedule 1

* [AT115-e][015][NR15] UE Capabilties I (Ericsson)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat R2-2108379, R2-2108380, R2-2108381, R2-2108382, R2-2108581, R2-2108582, R2-2108583, R2-2108584, R2-2108676, R2-2108677, R2-2106909, R2-2107977, R2-2107978,

Intended outcome: Report, agreed CRs if applicable

Deadline: Schedule 1

* [AT115-e][016][NR15] UE Capabilties II (Huawei)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat R2-2108574, R2-2108575, R2-2107390, R2-2108578, R2-2108579, R2-2108580, R2-2106958, R2-2107980, R2-2106963, R2-2108572, R2-2108573, R2-2107130, R2-2107389,

Intended outcome: Report, agreed CRs if applicable

Deadline: Schedule 1

* [AT115-e][017][NR15] UE Capabilties III (ZTE)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat R2-2107600, R2-2107601, R2-2106908, R2-2108346, R2-2106956, R2-2108038, R2-2108039, R2-2108718, R2-2108719, R2-2108749, R2-2108751,

Intended outcome: Report, agreed CRs if applicable

Deadline: Schedule 1

* [AT115-e][018][NR15NR16] Stage-2 (Huawei)

Scope: Determine agreeable parts and agree CRs, Treat R2-2108211 (NR15), R2-2108212 (NR15), R2-2108602, R2-2106914, R2-2107165, R2-2107664, R2-2108344, R2-2108439,

Intended outcome: Report, Agreed CRs.

Deadline: Schedule 1

* [AT115-e][019][NR16] MAC I (vivo)

Scope: Take on-line outcome into account, Treat remaining aspects, determine agreeable parts and agree CRs Treat R2-2106926, R2-2106997, R2-2108232, R2-2107927, R2-2108092, R2-2108093, R2-2107198, R2-2107609, R2-2107163, R2-2107160, R2-2107161, R2-2108781.

Intended outcome: Report, Agreed CRs, LS out

Deadline: On-Line first, Schedule 1

* [AT115-e][020][NR16] MAC II (Samsung)

Scope: Determine agreeable parts and agree CRs Treat R2-2108257, R2-2107197, R2-2107610, R2-2108094, R2-2108095, R2-2108787, R2-2107735, R2-2107200, R2-2108283, R2-2108284, R2-2108285,

Intended outcome: Report, Agreed CRs.

Deadline: Schedule 1

* [AT115-e][021][NR16] MAC III (ZTE)

Scope: Determine agreeable parts and agree CRs, Treat R2-2108267, R2-2107481, R2-2107569, R2-2107199, R2-2108120, R2-2108343, R2-2107062, R2-2107656, R2-2108785, R2-2108767, R2-2107010, R2-2107782, R2-2108096, R2-2108266, R2-2108603,

Intended outcome: Report, Agreed CRs.

Deadline: Schedule 1

* [AT115-e][022][NR16] RLC & PDCP (Nokia)

Scope: Determine agreeable parts and agree CRs, Treat R2-2108248, R2-2108249, R2-2108247, R2-2107662, R2-2107665

Intended outcome: Report, Agreed CRs.

Deadline: Schedule 1

* [AT115-e][023][NR16] Connection Control I (Apple)

Scope: Determine agreeable parts and agree CRs, Treat R2-2106955, R2-2107599, R2-2108638, R2-2108473, R2-2107401, R2-2106916, R2-2108106, R2-2107588, R2-2108440, R2-2108441, R2-2107571

Intended outcome: Report, Agreed CRs.

Deadline: Schedule 1

* [AT115-e][024][NR16] DAPS & CHO (Nokia)

Scope: Await on-line, take into account online outcomes. Determine agreeable parts and agree CRs, Treat remaining parts for R2-2108090, R2-2107775, R2-2107085, R2-2107086, R2-2107087, R2-2107776, R2-2108817, R2-2106933, R2-2108164, R2-2107526, R2-2107527, R2-2108102, R2-2108103, R2-2108776, R2-2108777

Intended outcome: Report, Agreed CRs, approved LS.

Deadline: on-line first, Schedule 1

* [AT115-e][025][NR16] RRM & Measurements (Ericsson)

Scope: Determine agreeable parts and agree CRs, Treat R2-2108104, R2-2108105, R2-2108288, R2-2108289, R2-2108652, R2-2107562, R2-2107504

Intended outcome: Report, Agreed CRs.

Deadline: Schedule 1

* [AT115-e][026][NR16] System Information and Paging (ZTE)

Scope: Determine agreeable parts and agree CRs, Treat R2-2107722 – R22107728, R2-2108107, R2-2107011, R2-2107934, R2-2108615.

Intended outcome: Report, Agreed CRs.

Deadline: Schedule 1

* [AT115-e][027][NR16] CP Other & LTE (Ericsson)

Scope: Determine agreeable parts and agree CRs, For R2-2107285-7288 await on-line treat remaining part if needed, Treat R2-2108291, R2-2107129, R2-2107482, R2-2106911, R2-2108268, R2-2107485, R2-2106996, R2-2108434, R2-2108375, R2-2108189, R2-2108190, R2-2108569, R2-2108679,

Intended outcome: Report, Agreed CRs.

Deadline: Schedule 1

* [AT115-e][028][NR16] UE capabilities I (Huawei)

Scope: Determine agreeable parts and agree CRs, Treat R2-2108480, R2-2107342, R2-2108641, R2-2108468, R2-2108585, R2-2108586, R2-2108651, R2-2106952, R2-2108618, R2-2108619, R2-2108735, R2-2108736

Intended outcome: Report, Agreed CRs.

Deadline: Schedule 1

* [AT115-e][029][NR16] n77 (Nokia)

Scope: Await on-line. Take on-line outcome into account. Determine agreeable parts and agree CRs, Treat R2-2107935 – 7947, R2-2108287, R2-2108756, R2-2108332

Intended outcome: Report (identify acceptable solutions at least for CB), Agreed CRs (in the end)

Deadline: Await on-line, Schedule 1 (CB on-line for decision)

* [AT115-e][030][NR15NR16] Idle Inactive (Qualcomm)

Scope: Determine agreeable parts and agree CRs, Await on-line for R2-2106959, R2-2107088, R2-2107402, R2-2107403, R2-2108841, Treat R2-2108364, R2-2108365, R2-2108481, R2-2107263, R2-2108362

Intended outcome: Report, Agreed CRs, LS if applicable

Deadline: Schedule 1

* [AT115-e][031][NR17] MINT (Nokia)

Scope: Ph1: Treat papers under 8.22 on MINT (this section), Determine agreeable points. Closed W1

Ph2: Reply LS

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

Deadline: Ph2 Aug 26 (No online CB is planned).

* [AT115-e][032][NR17] Security protection RRC Resume (Apple)

Scope: Ph1: Treat papers under 8.22 on Security protection for RRC resume (this section), Determine agreeable points. Closed CB W1

Ph2: Reply LS and Draft CRs.

Intended outcome: Ph1: Report, Ph2 Approved LS out

Deadline: Ph2 Aug 26 (no online CB is planned)

* [AT115-e][033][NR17] BCS5/4 (Xiaomi)

Scope: Ph1: Take into account on-line progress. FOCUS first on Decision Option 1 vs 2, can also clarify rel-support for BCS5. Closed at CB W1

Ph2: LS out

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

Deadline: Ph2 Aug 26 (no online CB is planned)

* [AT115-e][034][NR17] TX diversity (CMCC)

Scope: Treat papers under 8.22 on TX diversity, Determine agreeable points, agree CRs

Intended outcome: Report, Agreed CRs, LS out if found needed.

Deadline: Schedule 1

* [AT115-e][035][NR17] TX switching (China Telecom)

Scope: Ph1: Treat papers under 8.22 on TX switching (this section), Determine agreeable points, was concluded W1.

Ph2: Discuss how to capture and progress CRs as far as possible

Intended outcome: Ph1 Report, Ph2 endosed draft CRs (and report if useful).

Deadline: Ph2 Aug 26 (no online CB planned)

* [AT115-e][036][IoT-NTN] Non continuous coverage (Mediatek)

Scope: Ph1: Treat documents under 9.2.2. Identify potential agreements (e.g. confirm agreements from SI), Open points, potential alternatives, potential further enhancements.

Ph2: LS out

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

Deadline: Ph2: Thursday W2 (CB only if needed)

* [AT115-e][037][IoT-NTN] User Plane Impact (OPPO)

Scope: Treat documents under 9.2.3. Identify potential agreements (e.g. confirm SI agreements), Open points, potential alternatives.

Intended outcome: Report

Deadline: CLOSED

* [AT115-e][038][IoT-NTN] TA and Mobility (Ericsson)

Scope: Treat documents under 9.2.4.1 Identify potential agreements (e.g. confirm SI agreements, settle expected impacts), Open points (i.e. thing that need to be addressed), potential alternatives, potential further enhancements.

Ph1: prepare for on-line CB Monday W2

Ph2: Continue discussion based on Rapporteurs proposal on what to discuss, prioritize what can be progressed now. Companies should raise discussion scope points ASAP after ph2 start.

Intended outcome: Ph1: Report, Ph2: off-line agreements (if possible), Report

Deadline: Ph2: Thursday W2 (possible short late CB Friday).

* [AT115-e][039][NR15] Connection Control III (Apple)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat R2-2107617, R2-2107618, R2-2107619, R2-2107770, R2-2107771, R2-2107772, R2-2107838, R2-2107839, R2-2108616, R2-2108617, R2-2108373, R2-2108374

Intended outcome: Report, agreed CRs if applicable

Deadline: Schedule 1

**New Aug 17:**

* [AT115-e][040][eIAB] Reply LS on reduction of service interruption for intra-donor migration (AT&T)

Scope: Reply to R2-2106948.

Intended outcome: Approved LS out

Deadline: Monday W2 (for CB if needed)

* [AT115-e][041][eIAB] Reply LS on Inter-donor migration (Samsung)

Scope: Reply to R2-2106950 (if possible).

Intended outcome: Approved LS out

Deadline: Monday W2 (for CB if needed)

* [AT115-e][042][eIAB] fairness, latency and congestion (Interdigital)

Scope: Continuing from on-line discussion, treat further P7 P8 P11 and variants thereof. Based on complexity and benefits, identify at least one agreeable or tolerable variant (if possible).

Intended outcome: Report, possible way forward.

Deadline: Tuesday W2 (for CB)

* [AT115-e][043][ePowSav] Paging Subgrouping (Nokia)

Scope: Objective is to arrive at conclusions (CB for confirm) and specify Open issues for non-concluded points. Level of detail need to be reasonable.

1) Progress the capabilities discussion and handling of non-support, 2) Progress the architecture. Produce an agreeable generic Message sequence chart. Refine aspects of AMF, gNB and UE role and tasks in more detail (what AMF and gNB shall do and may do, what UE shall do). 3) Outline the options for how to map from CN assigned subgroup to L1-indicated subgroup.

Provision of assistance information is not included for now.

Intended outcome: Report

Deadline: Tuesday W2, for on-line CB.

* [AT115-e][044][ePowSav] TRS CSIRS for RRC Idle and Inactive (Ericsson)

Scope: Treat R2-2109037. Attempt Agreements based on the proposals in the summary.

Intended outcome: Agreements, Report

Deadline: Tuesday W2 (CB only if needed).

* [AT115-e][045][QoE] QoE LS out (Ericsson)

Scope: LS out to S5 (cc R3) acc to on-line discussion, conclude max no of QoE configs per UE, and other details if needed.

Intended outcome: Approved LS out

Deadline: Tuesday W2 (CB if needed)

* [AT115-e][046][QoE] Mobility (Huawei)

Scope: Treat R2-2109036 and related proposals. For each point, attempt to agree, if agreement seems not possible, outline the options or specify a FFS to be addressed later.

Intended outcome: Agreements, Report

Deadline: Tuesday W2 (CB)

New Aug 18:

* [AT115-e][047][MBS] Service Continuity deliver mode 2 (Xiaomi)

Scope: Ph1; Continue discussion on R2-2108799. Reach agreements as far as possible, can also define FFSes when helpful.

Ph2: LS outs based on agreements and discussion.

Intended outcome: Ph1: Agreements, report, Ph2: two LS outs, a) to SA3, and b) to SA2, SA4, R3

Deadline: Ph1 Wednesday W2 (CB), Ph2 EOM (can be extended if needed for 1 week post approval)

* [AT115-e][048][MBS] Notifications (Samsung)

Scope: Ph1: Treat R2-2108847. Reach agreements as far as possible, can also define FFSes when helpful. Ph2: LS out acc to agreements

Intended outcome: Agreements, report, Approved LS out

Deadline: Ph1: Wednesday W2 (CB if needed), Ph2: EOM (extended if needed)

* [AT115-e][049][MBS] L3 Other (Huawei)

Scope: Treat R2-2109035. Attempt to reach agreements only for those points for which it seems possible to agree without on-line discussion (best effort).

Intended outcome: Agreements, brief report

Deadline: EOM, no CB

* [AT115-e][050][NPN] LS out (CMCC)

Scope: LS out acc to discussion, related to P2 in R2-2109017

Intended outcome: Approved LSout

Deadline: Tuesday W2 (CB online only if needed)

New Aug 19:

* [AT115-e][051][feMIMO] LS out (Nokia)

Scope: LS out to R1, according to on-line discussion.

Intended outcome: Approved LS out

Deadline: EOM, Can CB W2 Wed or W2 Fri to address issues on-line if needed

* [AT115-e][052][feMIMO] RRC modelling (Intel)

Scope: Objective to list the main RRC modelling options and understand related limitations / pros / cons. If possible weed out unreasonable options if any.

Intended outcome: Report (Report to be submitted also to next meeting to serve as a baseline for discussions).

Deadline: EOM, Can CB W2 Wed or W2 Fri to address issues on-line if needed

* [AT115-e][053][feMIMO] Beam Failure Handling (Samsung)

Scope: Progress P4 P5 from R2-2107007. Can discuss also alternative options.

Intended outcome: Agreements, Report.

Deadline: EOM (can CB if needed)

Modified Aug 20:

Discussions **[031], [032], [033], [035]** were updated for Ph2

New Aug 23:

* [AT115-e][054][NR15] Common Fields Dedicated Signalling (Ericsson)

Scope: Continue discussion. 1) to address specific issues, such as SUL/IAB.

2) to find an agreeable description of the behaviour, e.g. a generic statement such as: “Fields that are dedicated configurations should be subject to UE capability check (regardless IE name). Fields that are cell specific configurations, but also distributed in dedicated signalling does not need to be subject to UE capability check”; OR e.g. a list of fields and how each should be handled.

Intended outcome: Report (if possible, off-line agreements)

Deadline: EOM (can be extended if needed)

Modified Aug 23:

Discussions **[036], [038]** were updated for Ph2

Modified Aug 24:

Discussions **[047]** **[048]** was updated for Ph2 (LS out)

# 1 Opening of the meeting

**This e-Meeting**

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

- RAN2 115 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.

Additional Announcement

RAN2 115-e Announcement on FCC Quiet Period AT&T

“The FCC’s quiet period for Auction 110 (the 3.45 GHz spectrum) is currently in effect. Accordingly, no discussions or questions relating to the auction, bids, bidding strategy, or post-auction market structure will be invited or permitted today or at any time until the quiet period has ended.”

* [000] The announcements and reminders under AI 1, 1.1, 1.2 and 1.3 were distributed and it was requested that everyone pay attention. The additional announcement under 1.3 by AT&T was also presented vocally. No questions or comments were received.

# 2 General

## 2.1 Approval of the agenda

R2-2106900 Agenda for RAN2#115-e Chairman agenda Late

- [000] Fujitsu comments that the WID tdoc reference for the R17 ePower Saving WI is wrong.

- [000] Chair: Thanks for spotting this. It is now corrected in the Chair Notes / meeting minutes. Chair further think that the WID comments at each AI beyond the WI ID are mainly there as supporting information, not intended as restrictive.

* [000] The Agenda in R2-2106900 is approved

## 2.2 Approval of the report of the previous meeting

[R2-2106901](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106901.zip) RAN2#114-e Meeting Report MCC report

* [000] The meeting report in R2-2106901 is approved

## 2.3 Reporting from other meetings

### 2.3.1 TSG RAN 92e

Breif RAN2 centric Report from TSG RAN 92e:

0) RAN2 Status Report in RP-210931 received no comments.

1) RAN time plan in RP-211582 was endorsed. E.g. for RAN2 it means that the time period July 26-30 may be used for email discussions.

2) TU-plan was discussed and updated. Endorsed Multi-WG TU plan is now in RP-211604. RAN2 explicit TU allocation was added e.g. for Measurement gap enhancements WI (from Nov) and Coverage Enhancement WI (from Aug), In addition, R2 impacts of DSS was briefly discussed. RAN2 chair expects work on DSS R2 CRs can start in Q4 based on LS from RAN1.

3) Observation: There were a number of proposals for scope reduction for various R17 WIs that were not approved, with the comment that further scope reduction may be better done in 2021H2. There were proposals to further raise the bar for maintenance corrections that received significant support. RAN2 Chair: this reflects the current high load, and RAN2 work need to have sensible ambition level.

4) On Handling of TR 38.822

Agreement: For R16, the TR 38.822 is kept updated

Guidelines on updating the TR for Rel-16 features:

1) For 38822, updates to RAN1 and RAN4 features shall be initiated in the respective group and communicated to RAN2 by LS (as today).

2) For the RAN2 work: 38822 is updated following agreed changes to 38306, and received LSes with updates to RAN1 and RAN4 feature lists. CR for such updates are only initiated by the rapporteur. Any other CRs should be limited (up to RAN2 chair on how this is done) to not cause workload in RAN2.

5) Inclusive Language, Gino Mansini (Ericsson) is RAN point of contact for inclusive language issues. Discussion conclusions:

1) Include ASN.1 names when updating specifications to use more inclusive language, as formulated in RP-211363.

2) RAN WG Chairs should instruct specification Rapporteurs to include ASN.1 names in the ongoing inclusive language review.

3) Communication to SA via LS.

4) Ask for feedback from SA/CT in the LS, according to the conclusions in RP-210831.

5) LS to SA and CT in RP-211519.

6) NOTE: No consensus at this time to include Rel-16 specifications in the inclusive language review; status quo is kept

6) R17 SDT: On RRC-less solution:

RAN2 is allowed to continue the work on the prioritized solution (i.e. the RRC-based solution

for SDT) and RAN plenary to discuss the RRC-less solution as part of the Rel-17 WI scope discussion in RAN#93

7) R17 TxD: A New WID was approved for the work on UE RF requirements for Transparent Tx Diversity (TxD) for NR. R2 impact mainly UE cap. Approved WID: RP-211597, Handled for now under AI 8.22 R17 Other.

8) R17 feMimo: RAN2 scope was a major discussion point. It was decided to exclude enhancements to serving cell change. See updated WID in RP-211586

9) R17 NR up to 71GHz: The WID was revised, with e.g. the following Note: RAN2 is to prioritize protocol support of RAN1 design and not on optimizations on items not discussed in RAN1. Revised WID in RP-211584

10) R17 RedCap: The WID was revised with e.g. clarifications on RRM measurement relaxations. Revised WID in RP-211574

11) R17 IoT NTN: SI was closed, Official version approved of TR 36.763. WID was approved in RP-211601.

12) R17 eIAB: Rel-17 IAB to deprioritize discussions on ”DAPS-like” solutions for IAB.

13) R17 RF requirements enhancement for NR FR1 [RAN4 WI: NR\_RF\_FR1\_enh], on Band n77: (See RP-211587)

1. RAN4 focuses on the necessary updates to RAN4 requirements and leave signaling work, if any, to RAN2.

2. RAN2 focuses on signaling aspects, with an aim to ensure the network can properly deal with legacy n77 UEs that do not support 3.45-3.55 GHz operation in US

3. RAN tasks RAN4/2 to complete the required work in Aug. and report back to RAN#93-e

4. RAN4 chair is kindly asked to use an appropriate agenda to facilitate the work in Aug. meeting, i.e., R16 maintenance, R16 TEI, etc.

## 2.4 Others

Further instructions

- For Maintenance, please consider essential corrections only, and please explain why your proposed correction is essential, e.g. whether it resolves an IOT/IODT issue.

- As usual tdoc limitations doesn’t apply to rapporteur documents, e.g. running CRs, 1 Misc CR per release per TS for the TS rapporteur, planning documents, reports from email/offline discussions, and documents created at meeting. Furthermore for incoming LSes, the contact company can submit one tdoc (e.g. draft reply, draft CR etc) that doesn’t count in tdoc limitation. Tdoc limitations count towards the company listed first for multi-source documents.

- Please submit CRs to the Agenda item of the corrected WI, regardless if the correction is proposed only for a later release.

- For R17, it is important to now converge on high level issues, to allow proper start/progress of TS work, and initiate discussions on all not yet started multi-WG issues. As observed during RP 92e, R17 non-converged parts may be subject to plenary prioritization discussions.

- For R17 WIs, if not already done, it is recommended to start the work on running CRs with significant contents.

NWM tool

- RAN2 will RAN2 will use the ETSI NWM tool for some selected offline/email discussions during RAN2 115-e, selected by session chairs.

- Compared to updating a file on the ftp server, using NWM is somewhat more cumbersome for the moderator/rapporteur, but providing comments should be faster and easier for participants.

- The moderator/rapporteur is assumed to use NWM at least for deadline-limited comments collecting phase(s), i.e. to produce a report including companies comments, i.e. same phase as has been previously usually done by ftp/file update in Drafts folders.

- NWM is expected to be used together with email, e.g. kick-off, conclusions, and possible interactive discussion by email, and may be use together with ftp/Drafts folders (e.g. for containing Draft revisions etc).

- Instructions are available in the Invitation folder.

Rapporteur changes

Spec Former rapporteur Proposed new rapporteur

36.321 Mats Folke (Ericsson) Robert Karlsson (Ericsson)

* [000] The rapporteur change is approved

# 3 Incoming liaisons

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

Misc

On-Line

[R2-2106984](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106984.zip) LS on Bearer pre-emption rate limit issue for GBR bearer establishment in MC systems (S6-211829; contact: Motorola Solutions) SA6 LS in Rel-16 To:RAN2, RAN3 Cc:RAN

- LG wonder if DL or UL is applicable.

- LG wonder if logical channel priority would be sufficient. Intel think we need pre-empt fpor GBS but that is supported.

Chair: RAN2 think that this is a RAN3 matter, and all companies expressing opinion thought that this is likely an implementation matter (no standards impact).

* Noted

[R2-2108167](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108167.zip) Discussion on SA6 LS on Bearer pre-emption rate limit issue for GBR bearer establishment in MC systems Ericsson discussion Rel-16

- Ericsson think this is a R3 matter and R2 doesn’t need to do anything. BT agrees. Nokia agrees. Intel agrees, QC as well

- Ericsson think this can be solved by implementation. Spec change may not be needed. BT agrees. Intel agrees. Huawei agrees. QC as well

- Ericsson think there are aspects not taken into account e.g. MBMS / MBS.

* Noted

No Action

[R2-2106975](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106975.zip) Reply LS on User location identification from Carrier Aggregation secondary cell activation messages (S3-212305; contact: Huawei) SA3 LS in Rel-15 5GS\_Ph1-SEC To:GSMA FSAG Cc:RAN2

This LS is applicable to both NR and LTE. A related discussion happened at earlier meeting in the context of AI 9.3 LTE Rel-17. SA3 seems to have made the same conclusion as RAN2, no action.

* [000] noted

# 4 EUTRA corrections Rel-15 and earlier

See Appendix A for reference to Work items, work item codes and WIDs.

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

## 4.1 NB-IoT corrections Rel-15 and earlier

Documents in this agenda item will be handled in a break out session. Common NB-IoT/eMTC parts treated jointly with 4.2.

## 4.2 eMTC corrections Rel-15 and earlier

Documents in this agenda item will be handled in a break out session. Common NB-IoT/eMTC parts treated jointly with 4.1. No web conference is planned for this agenda item.

[R2-2107773](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107773.zip) Key stream reuse issue of EDT and PUR NEC discussion Rel-15 NB\_IOTenh2-Core, LTE\_eMTC4-Core

## 4.3 V2X and Sidelink corrections Rel-15 and earlier

Documents in this agenda item will be handled in a break out session.

## 4.4 Positioning corrections Rel-15 and earlier

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

[R2-2107260](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107260.zip) Further discussion on Positioning SI message scheduling for eMTC Lenovo, Motorola Mobility discussion Rel-15 LCS\_LTE\_acc\_enh-Core

[R2-2107261](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107261.zip) Addition of scheduling restrictions of positioning SI messages for eMTC Lenovo, Motorola Mobility CR Rel-15 36.331 15.14.0 4691 - F LCS\_LTE\_acc\_enh-Core

[R2-2107262](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107262.zip) Addition of scheduling restrictions of positioning SI messages for eMTC Lenovo, Motorola Mobility CR Rel-16 36.331 16.5.0 4692 - A LCS\_LTE\_acc\_enh-Core

[R2-2107784](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107784.zip) Correction on ProvideCapabilities and ProvideLocationInformation Samsung CR Rel-14 36.355 14.7.0 0258 - F TEI14

## 4.5 Other LTE corrections Rel-15 and earlier

Documents in this agenda item will be handled in a break out session.

Purely editorial corrections should be avoided, text enhancements may be deprioritized. Corrections should be taken up with the specification editor before submitting to avoid CR duplication. If this is not done, the contribution may not be treated.

[R2-2108312](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108312.zip) On T330 resetting Ericsson, ZTE Corporation, Sanechips CR Rel-15 36.331 15.14.0 4712 - F LTE\_5GCN\_connect-Core

[R2-2108634](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108634.zip) Minor changes collected by Rapporteur for Rel-15 Samsung CR Rel-15 36.331 15.14.0 4718 - F LTE\_eMTC4-Core, LTE\_sTTIandPT, LTE-L23

[R2-2108635](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108635.zip) Minor changes collected by Rapporteur for Rel-16 Samsung CR Rel-16 36.331 16.5.0 4719 - A LTE\_eMTC4-Core, LTE\_sTTIandPT, LTE-L23

# 5 Rel-15 WI: New Radio (NR) Access Technology

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

Only essential corrections. Includes all R15 NR drops and architectures.

## 5.1 Organisational

Incoming LSs, etc.

## 5.2 Stage 2 corrections

You should discuss your stage 2 CRs with the specification rapporteurs before submission.

### 5.2.1 TS 3x.300

### 5.2.2 TS 37.340

Treated by email

[R2-2108211](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108211.zip) Clarification on RACH procedure for HO with PSCell Ericsson CR Rel-15 37.340 15.13.0 0265 2 F NR\_newRAT-Core R2-2106675

* [018] Agreed

[R2-2108212](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108212.zip) Clarification on RACH procedure for HO with PSCell Ericsson CR Rel-16 37.340 16.6.0 0266 2 A NR\_newRAT-Core R2-2106676

Comment: This change was endorsed last meeting and a LS was sent.

Treated by email, in joint email discussion with R16 Stage-2 [018]

* [018] Agreed

Withdrawn

R2-2108183 Clarification on RACH procedure for HO with PSCell Ericsson CR Rel-15 37.340 15.13.0 0281 - F NR\_newRAT-Core Withdrawn

R2-2108184 Clarification on RACH procedure for HO with PSCell Ericsson CR Rel-16 37.340 16.6.0 0282 - A NR\_newRAT-Core Withdrawn

## 5.3 User Plane corrections

Treated by email

* [AT115-e][011][NR15] User plane corrections (Huawei)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat R2-2108264, R2-2108265, R2-2108600, R2-2108601, R2-2108597, R2-2108598, R2-2108599, R2-2108782, R2-2108819, R2-2107224, R2-2107616, R2-2108844, R2-2108845,

Intended outcome: Report, agreed CRs if applicable

Deadline: Schedule 1

[R2-2109097](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109097.zip) Report of [AT115-e][011][NR15] User plane corrections Huawei, HiSilicon

* [011] Noted, agreements reflected below

### 5.3.1 MAC

MAC CE initial state

[R2-2108264](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108264.zip) Correction on the term of the handover in handling of MAC CE ZTE Corporation, Nokia, Nokia Shanghai Bell CR Rel-15 38.321 15.12.0 1142 - F NR\_newRAT-Core

[R2-2108265](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108265.zip) Correction on the term of the handover in handling of MAC CE ZTE Corporation, Nokia, Nokia Shanghai Bell CR Rel-16 38.321 16.5.0 1143 - F NR\_newRAT-Core

[R2-2108600](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108600.zip) Clarification on the activation status for semi-persistent resource and indications Huawei, HiSilicon CR Rel-15 38.321 15.12.0 1151 - F NR\_newRAT-Core

[R2-2108601](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108601.zip) Clarification on the activation status for semi-persistent resource and indications Huawei, HiSilicon CR Rel-16 38.321 16.5.0 1152 - F NR\_newRAT-Core

* [011] 4 CRs above are postponed
* [011] RAN2 assumes that the corresponding radio resources/states are initially “deactivated” for SCG which are de-/activated by the following MAC CEs after a PSCell addition/change from TS 38.321.

5.18.2 de-/activation of SP CSI-RS/CSI-IM resource set MAC CE,

5.18.4 de-/activation of UE-specific PDSCH TCI state MAC CE,

5.18.6 de-/activation of SP CSI reporting on PUCCH MAC CE,

5.18.7 de-/activation of SP SRS MAC CE,

5.18.9 de-/activation of SP ZP CSI-RS resource set MAC CE,

5.18.17 de-/activation of SP SRS for positioning MAC CE.

* [011] Observation: RAN2 has no consensus on the intended UE behavior upon configuration and after PCell change and PSCell addition/change relevant to “5.18.8 de-/activation of spatial relation of PUCCH resource MAC CE” from TS 38.321.
* [011] Observation: RAN2 has no consensus on differences of UE behaviors upon initial configuration and reconfiguration by RRC relevant to above MAC CEs from TS 38.321.
* [011] RAN2 to send an LS to RAN1 (cc: RAN4) to ask the currently assumed behavior in their respective specifications for UE behaviors when PSCell addition/change, initial configuration and reconfiguration relevant to above MAC CEs.

[R2-2107224](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107224.zip) Clarification on UE behaviors for de-/activation MAC CEs Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core

* [011] Noted
* [011] RAN2 confirms that after an SCell is deactivated, all radio resources/states on that SCell which are de-/activated by MAC CEs are deactivated. They remain deactivated until network re-activate them by their respective activation MAC CEs. No change to the specifications.

[R2-2109098](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109098.zip) LS on initial state of elements controlled by MAC CEs RAN2 LS out

* [011] LS is approved

Suspended RB

[R2-2108597](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108597.zip) Discussion on MAC behavior for suspended radio bearers Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core R2-2105749

[R2-2108782](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108782.zip) Handling of suspended RB LG Electronics UK discussion NR\_newRAT-Core

[R2-2108819](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108819.zip) On BSR calculation for suspended raio bearers MediaTek Inc. discussion Rel-15

* [011] 3 tdocs noted

[R2-2108598](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108598.zip) Correction on MAC behavior for suspended radio bearers for Rel-15 Huawei, HiSilicon CR Rel-15 38.321 15.12.0 1149 - F NR\_newRAT-Core

[R2-2108599](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108599.zip) Correction on MAC behavior for suspended radio bearers for Rel-16 Huawei, HiSilicon CR Rel-16 38.321 16.5.0 1150 - F NR\_newRAT-Core

* [011] Both Not pursued
* [011] RAN2 confirms that the suspended RBs shall be considered for BSR calculation. No change to the specifications.
* [011] RAN2 confirms that all the L2 entities do not transmit/receive any data to/from lower/upper layers for suspended RBs. No change to the specifications.
* [011] RAN2 observes that there may be existing UE implementations that do not consider suspended RBs for BSR calculation

[R2-2107616](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107616.zip) Discussion on GSMA LS on SPARROW attack Apple discussion Rel-15 NR\_newRAT-Core

* [011] Noted
* [011] No need for RAN2 action for GSMA LS on SPARROW attack, can act if SA3 decides that action is needed.

### 5.3.2 RLC PDCP SDAP

R2-2107666 RLC Clean-up CR Samsung CR Rel-15 38.322 15.5.0 0041 - F NR\_newRAT-Core

=> Revised in R2-2108844

R2-2108844 RLC Clean-up CR Samsung, MediaTek CR Rel-15 38.322 15.5.0 0041 1 F NR\_newRAT-Core

R2-2107667 RLC Clean-up CR Samsung CR Rel-16 38.322 16.2.0 0042 - A NR\_newRAT-Core

=> Revised in R2-2108845

R2-2108845 RLC Clean-up CR Samsung, MediaTek CR Rel-16 38.322 16.2.0 0042 1 A NR\_newRAT-Core

- [011] Rapporteur Summary: All companies acknowledge the typos needs to be corrected, but several companies are reluctant to accept the CRs. The rapporteur think we should stick to the high bar of agreeing R15 and R16 CRs and the typos can be corrected when next RLC spec version is produced.

* [011] R2-2108844 and R2-2108845 are not pursued for Rel-15 and 16.
* [011] The changes in R2-2108844 and R2-2108845 are expected to be introduced by the RLC rapporteur when Rel-17 TS is created**.**

## 5.4 Control Plane corrections

### 5.4.1 NR RRC

#### 5.4.1.1 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.

Including outcome of [Post114-e][070][NR15] Common Fields in Dedicated Signalling (Ericsson)

Common fields in dedicated signalling

W2 Monday On-line

[R2-2108415](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108415.zip) E-mail discussion summary of [Post114-e][070][NR15] Common Fields in Dedicated Signalling Ericsson (Rapporteur) discussion Rel-15 NR\_newRAT-Core Late

DISCUSSION

P1

- Samsung wonder if for dedicated SIB1 delivery whether they really need to be the same.

- Intel think that there will be no particular checking etc in the TS and that these are just assumptions for usage when writing the TS.

- LG think that the purpose of the second part is to avoid that the network check UE capability first.

- Apple wonder about UEs in the field. We may not need to do anything as things are not broken. Ericsson think that for the first proposals there are no issues.

P2

- Conformance with UE capabilities: Agree that the requirement that the RRCReconfiguration message shall be in accordance with the UE capabilities applies also to the xxxCommon fields and IEs therein.

- Huawei think we should differentiate different IEs, think that for xxxCommon it should be same as SIB1, except BWPcommon which is UE specific and need to be set acc to UE caps. Ericsson have some sympathy for this. Dedicated BWP config contains IEs called “common”

- Nokia think it is good to not have much additional work. Nokia wonder if there is anything broken. ZTE agree with Nokia, think we can discuss case by case

- QC think SUL for IAB configuration is an example, think this part need to be set according to UE capabilities. Ericsson think we identified some cases.

- Intel think we cannot only look at the IE name but instead look at the usage, if intended as a dedicated configuration or if intended as a common configuration

- chair wonder is the following is true: IE’s that are intended top be dedicated configurations should be subject to UE capability check (regardless IE name). IE’s that are intended as common configurations, distributed in SIB etc, but distributed in dedicated signalling does not need to be subject to UE capability check.

- ZTE think that cell specific configuraitions do not need to be subject to UE cap check

- QC wonder if “cell specific” really is clear, e.g. regarding the SUL.

- Peraton labs wonder how this works with non-signalled UE caps. Chair think that if the network need to know, we need to define signalling (and we do).

* Fields that are present in *ServingCellConfigCommon* delivered by dedicated signalling shall have the same value as the corresponding field in SIB1.
* Confirm that *dedicatedSIB1-Delivery* shall have the same fields and values as the broadcasted SIB1.

Continue offline in a separate discussion, can start now, possibly extended either short-post or to next meeting if needed in order to check details.

1) to address specific problems, such as the one QC brings up.

2) to find an agreeable description of the behaviour, e.g. a generic statement such as: “Fields that are dedicated configurations should be subject to UE capability check (regardless IE name). Fields that are cell specific configurations, but also distributed in dedicated signalling does not need to be subject to UE capability check”; OR e.g. a list of fields and how each should be handled.

* [AT115-e][054][NR15] Common Fields Dedicated Signalling (Ericsson)

Scope: Continue discussion. 1) to address specific issues, such as SUL/IAB.

2) to find an agreeable description of the behaviour, e.g. a generic statement such as: “Fields that are dedicated configurations should be subject to UE capability check (regardless IE name). Fields that are cell specific configurations, but also distributed in dedicated signalling does not need to be subject to UE capability check”; OR e.g. a list of fields and how each should be handled.

Intended outcome: Report (if possible, off-line agreements)

Deadline: EOM (can be extended if needed)

Changed into a long post meeting email discussion

* [Post115-e][054][NR15] Common Fields Dedicated Signalling (Ericsson)

Scope: Continue discussion from baseline at R2 115-e.   
1) to address specific issues, such as SUL/IAB.

2) to find an agreeable description of the desired behaviour, e.g. a generic statement such as: “Fields that are dedicated configurations should be subject to UE capability check (regardless IE name). Fields that are cell specific configurations, but also distributed in dedicated signalling does not need to be subject to UE capability check”; OR e.g. a list of fields and how each should be handled, OR both/combination.

Intended outcome: Report

Deadline: Long

* [AT115-e][012][NR15] Connection Control I (OPPO)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat R2-2108368, R2-2108369, R2-2108370, R2-2108636, R2-2108637, R2-2108371, R2-2108372, R2-2107373, R2-2107374, R2-2107418, R2-2107419, R2-2108187, R2-2108188,

Intended outcome: Report, agreed CRs if applicable

Deadline: Schedule 1

[R2-2109067](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109067.zip) Report of [AT115-e][012][NR15] Connection Control I (OPPO) OPPO

* [012] Noted, agreements reflected below

L1 Parameters

[R2-2108368](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108368.zip) Discussion on BWP switch for TDD ZTE Corporation, Sanechips discussion Rel-15 38.331 NR\_newRAT-Core

* [012] Noted

[R2-2108369](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108369.zip) Correction on firstActiveBWP-Id for TDD ZTE Corporation, Sanechips CR Rel-15 38.331 15.14.0 2768 - F NR\_newRAT-Core

[R2-2108370](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108370.zip) Correction on firstActiveBWP-Id for TDD(R16) ZTE Corporation, Sanechips CR Rel-16 38.331 16.5.0 2769 - A NR\_newRAT-Core

* [012] For TDD, when NW wants to switch the DL BWP and/or UL BWP by RRC, NW shall include the fields firstActiveDownlinkBWP-Id and firstActiveUplinkBWP-Id simultaneously (with the same BWP-Id) in same RRC message.
* [012] not clear whether TS need to updated. Both postponed

[R2-2108636](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108636.zip) Corrections on the absent condition of csi-ReportingBand Samsung CR Rel-15 38.331 15.14.0 2787 - F NR\_newRAT-Core

[R2-2108637](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108637.zip) Corrections on the absent condition of csi-ReportingBand Samsung CR Rel-16 38.331 16.5.0 2788 - A NR\_newRAT-Core

* [012] Both not pursued
* [012] The changes a) to remove “the number of sub bands can be from 3 (24 PRBs, sub band size 8) to 18 (72 PRBs, sub band size 4)” and b) add “(see TS 38.214 [19], clause 5.2.1.4)” as reference are agreed, and shall be captured in the rapporteur CRs. Other changes are not agreed.

L2 Parameters

[R2-2108371](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108371.zip) Correction on rach-ConfigBFR ZTE Corporation, Sanechips CR Rel-15 38.331 15.14.0 2770 - F NR\_newRAT-Core

[R2-2108372](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108372.zip) Correction on rach-ConfigBFR(R16) ZTE Corporation, Sanechips CR Rel-16 38.331 16.5.0 2771 - A NR\_newRAT-Core

* [012] Both not pursued
* [012] The Change of “Configuration of contention free random access occasions for BFR” into “Configuration of random access parameters for BFR” is agreed and to be merged into the Rapporteur CRs.

Radio Bearer Config

[R2-2107373](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107373.zip) 38331 Clarifications on securityConfig in RadioBearerConfig-R15 OPPO CR Rel-15 38.331 15.14.0 2717 - F LTE\_NR\_DC\_CA\_enh-Core

[R2-2107374](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107374.zip) 38331 Clarifications on securityConfig in RadioBearerConfig-R16 OPPO CR Rel-16 38.331 16.5.0 2718 - A NR\_newRAT-Core

* [012] Both not pursued

[R2-2107418](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107418.zip) 38331 Clarifications on RadioBearerConfig-R15 OPPO CR Rel-15 38.331 15.14.0 2724 - F LTE\_NR\_DC\_CA\_enh-Core

[R2-2107419](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107419.zip) 38331 Clarifications on RadioBearerConfig-R16 OPPO CR Rel-16 38.331 16.5.0 2725 - A NR\_newRAT-Core

* [012] Both: Contents is agreeable, merged into Rapporteur CR(s)

[R2-2108187](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108187.zip) Release of RadioBearerConfig during MR-DC release Ericsson CR Rel-15 38.331 15.14.0 2756 - F NR\_newRAT-Core

[R2-2108188](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108188.zip) Release of RadioBearerConfig during MR-DC release Ericsson CR Rel-16 38.331 16.5.0 2757 - A NR\_newRAT-Core

* [012] Both not pursued
* [012] When the UE performs MR-DC release, the UE shall not release the RadioBearerConfig autonomously. (no need for TS update)
* [AT115-e][013][NR15] Connection Control II (vivo)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat R2-2107375, R2-2107376, R2-2108811, R2-2108812, R2-2108185, R2-2108186, R2-2107836, R2-2107837, R2-2107570,

Intended outcome: Report, agreed CRs if applicable

Deadline: Schedule 1

[R2-2109179](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109179.zip) Summary of [AT115-e][013][NR15] Connection Control II (vivo) vivo

* [013] Noted, agreements reflected below

Full Configuration

[R2-2107375](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107375.zip) 38331 Clarifications on full configuration-R15 OPPO CR Rel-15 38.331 15.14.0 2719 - F NR\_newRAT-Core

[R2-2107376](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107376.zip) 38331 Clarifications on full configuration-R16 OPPO CR Rel-16 38.331 16.5.0 2720 - A NR\_newRAT-Core

* [013] both not pursued
* [013] DRB-ToAddModList shall be present in the case of RRCResume with full configuration. gNB implementation is expected to ensure this. No TS change needed.

Reconfiguration With Sync

[R2-2107570](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107570.zip) Clarification on LTE HO without SCG Configuration Change Apple discussion Rel-16 NR\_newRAT-Core

Moved from 6.1.4.1.1

* [013] Noted
* [013] NR SCG reconfigurationWithSync configuration is mandatory present for (NG)EN-DC handover

[R2-2108811](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108811.zip) Correction on reconfigurationWithSync Huawei, HiSilicon CR Rel-15 38.331 15.14.0 2798 - F NR\_newRAT-Core

[R2-2108812](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108812.zip) Correction on reconfigurationWithSync Huawei, HiSilicon CR Rel-16 38.331 16.5.0 2799 - A NR\_newRAT-Core

* [013] Both revised

[R2-2109211](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109211.zip) Correction on reconfigurationWithSync Huawei, HiSilicon, Apple CR Rel-15 38.331 15.14.0 2798 1 F NR\_newRAT-Core

[R2-210](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108812.zip)9212 Correction on reconfigurationWithSync Huawei, HiSilicon, Apple CR Rel-16 38.331 16.5.0 2799 1 A NR\_newRAT-Core

* [013] Both Agreed

[R2-2108185](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108185.zip) Clarification on NR SCG reconfiguration with sync in LTE Ericsson CR Rel-15 36.331 15.14.0 4707 - F NR\_newRAT-Core

[R2-2108186](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108186.zip) Clarification on NR SCG reconfiguration with sync in LTE Ericsson CR Rel-16 36.331 16.5.0 4708 - A NR\_newRAT-Core

[R2-2107836](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107836.zip) Correction on the Need for SCG Reconfiguration with Sync in (NG)EN-DC vivo CR Rel-15 36.331 15.14.0 4698 - F NR\_newRAT-Core

[R2-2107837](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107837.zip) Correction on the Need for SCG Reconfiguration with Sync in (NG)EN-DC vivo CR Rel-16 36.331 16.5.0 4699 - A NR\_newRAT-Core

* [013] 4 CRs above not pursued
* [AT115-e][039][NR15] Connection Control III (Apple)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat R2-2107617, R2-2107618, R2-2107619, R2-2107770, R2-2107771, R2-2107772, R2-2107838, R2-2107839, R2-2108616, R2-2108617, R2-2108373, R2-2108374

Intended outcome: Report, agreed CRs if applicable

Deadline: Schedule 1

[R2-2109075](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109075.zip) Report of [AT115-e][039][NR15] Connection Control III (Apple) Apple

* [039] Noted, agreements reflected below

RRC Release

[R2-2107617](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107617.zip) Discussion on RRC handling of NAS triggers not subject to UAC Apple discussion Rel-15 NR\_newRAT-Core

* [039] Noted
* [039] RAN2 send a LS to CT1 to check whether there is any NAS procedure may trigger RRC resume without providing Access Category/Access Identity (i.e., not requesting access barring check).

[R2-2107618](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107618.zip) T302 check when NAS triggers RRC connection resume Apple CR Rel-15 38.331 15.14.0 2734 - F NR\_newRAT-Core

[R2-2107619](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107619.zip) T302 check when NAS triggers RRC connection resume Apple CR Rel-16 38.331 16.5.0 2735 - A NR\_newRAT-Core

* [039] Both Postponed

[R2-2109153](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109153.zip) [Draft] LS on NAS procedure not subject to UAC Apple

* [039] LS is approved. Final version in R2-2109205.

[R2-2107770](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107770.zip) Discussion on timer expiry after RRCRelease reception NEC discussion Rel-15 NR\_newRAT-Core

* [039] Noted
* [039] RAN2 confirms that during the reception and processing of RRCRelease message, it is left to UE implementation to avoid the race conditions caused by T319/T316 expiry (e.g., stop timer(s) or not initiate corresponding procedure(s) upon expiry).

[R2-2107771](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107771.zip) Clarification on timer expiry after RRCRelease reception NEC CR Rel-15 38.331 15.14.0 2737 - F NR\_newRAT-Core

[R2-2107772](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107772.zip) Clarification on timer expiry after RRCRelease reception NEC CR Rel-16 38.331 16.5.0 2738 - F NR\_newRAT-Core, LTE\_NR\_DC\_CA\_enh-Core

* [039] Both not pursued

[R2-2107838](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107838.zip) Correction on the Release Cause for RRC\_INACTVE UE vivo CR Rel-15 36.331 15.14.0 4700 - F NR\_newRAT-Core

[R2-2107839](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107839.zip) Correction on the Release Cause for RRC\_INACTVE UE vivo CR Rel-16 36.331 16.5.0 4701 - A NR\_newRAT-Core

* [039] Both revised

[R2-2109180](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109180.zip) Correction on the Release Cause for RRC\_INACTVE UE vivo CR Rel-15 36.331 15.14.0 4700 1 F NR\_newRAT-Core

[R2-2109181](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109181.zip) Correction on the Release Cause for RRC\_INACTVE UE vivo CR Rel-16 36.331 16.5.0 4701 1 A NR\_newRAT-Core

* [039] Both Agreed

Other

[R2-2108616](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108616.zip) Adding RRC processing delay for HO from E-UTRA to NR Huawei, HiSilicon CR Rel-15 38.331 15.14.0 2784 - F NR\_newRAT-Core

[R2-2108617](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108617.zip) Adding RRC processing delay for HO from E-UTRA to NR Huawei, HiSilicon CR Rel-16 38.331 16.5.0 2785 - A NR\_newRAT-Core

* [039] Both Revised

[R2-2109086](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109086.zip) Adding RRC processing delay for HO from E-UTRA to NR Huawei, HiSilicon CR Rel-15 38.331 15.14.0 2784 1 F NR\_newRAT-Core

[R2-2109087](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109087.zip) Adding RRC processing delay for HO from E-UTRA to NR Huawei, HiSilicon CR Rel-16 38.331 16.5.0 2785 1 A NR\_newRAT-Core

* [039] Both Agreed

[R2-2108373](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108373.zip) Correction on plmn-IdentityList ZTE Corporation, Sanechips CR Rel-15 38.331 15.14.0 2772 - F NR\_newRAT-Core

[R2-2108374](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108374.zip) Correction on plmn-IdentityList(R16) ZTE Corporation, Sanechips CR Rel-16 38.331 16.5.0 2773 - A NR\_newRAT-Core

* [039] Both: contents is agreeable, merged with Rapporteur CR(s)

#### 5.4.1.2 Inter-Node RRC messages

#### 5.4.1.3 Other

Including e.g. System Information, RRM and Measurements

* [AT115-e][014][NR15] CP Other (Huawei)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat R2-2108290, R2-2108644, R2-2108645, R2-2107022, R2-2108646, R2-2108647, R2-2107377, R2-2107378, R2-2107573, R2-2108571

Intended outcome: Report, agreed CRs if applicable

Deadline: Schedule 1

[R2-2109210](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109210.zip) [AT115-e][014][NR15] CP Other (Huawei)-Phase 2 Huawei, HiSilicon

* [014] Noted, agreements reflected below

Rapporteur CR

[R2-2108290](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108290.zip) Miscellaneous non-controversial corrections Set XI Ericsson CR Rel-15 38.331 15.14.0 2762 - F NR\_newRAT-Core

* [014] revised, for short email approval together with revision of R2-2108291

SearchSpaceSIB1

[R2-2108644](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108644.zip) Clarification of search space configuration for SIB1 Huawei, HiSilicon CR Rel-15 38.331 15.14.0 2790 - F NR\_newRAT-Core

Moved from 5.4.1.1

[R2-2108645](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108645.zip) Clarification of search space configuration for SIB1 Huawei, HiSilicon CR Rel-16 38.331 16.5.0 2791 - A NR\_newRAT-Core

Moved from 5.4.1.1

* [014] Both Postponed

[R2-2107022](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107022.zip) Discussion on RMSI and OSI reception based on non-zero search space OPPO discussion Rel-15 NR\_newRAT-Core

* [014] Noted, topic is Postponed
* [014] Send an LS to RAN1

[R2-2109221](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109221.zip) LS on RMSI reception based on non-zero search space RAN2 LS out

* [014] LS out is approved

Measurements

[R2-2108646](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108646.zip) Correction on inter-RAT measurement report triggering Huawei, HiSilicon CR Rel-15 38.331 15.14.0 2792 - F NR\_newRAT-Core

[R2-2108647](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108647.zip) Correction on inter-RAT measurement report triggering Huawei, HiSilicon CR Rel-16 38.331 16.5.0 2793 - A NR\_newRAT-Core

* [014] Both agreed

[R2-2107377](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107377.zip) 38331 Corrections on MeasObjectEUTRA-R15 OPPO CR Rel-15 38.331 15.14.0 2721 - F LTE\_NR\_DC\_CA\_enh-Core

Moved from 5.4.1.1

[R2-2107378](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107378.zip) 38331Corrections on MeasObjectEUTRA-R16 OPPO CR Rel-16 38.331 16.5.0 2722 - A NR\_newRAT-Core

Moved from 5.4.1.1

* [014] Both not Pursued
* [014] The wording on “whitelisted cells” can be removed and the changes are merged to the rapporteur CR (as it is editorial).

[R2-2107573](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107573.zip) Clarification on L3 filtering configuration (filterCoefficient) Apple discussion Rel-16 NR\_newRAT-Core

Moved from 6.1.4.1.2

[014] Rap final proposals:

Proposal 2a: the gNB configuration of k should be based on the assumed sample rate X (as defined in TS 38.133), and it is up to gNB implementation.

Proposal 2b: the UE should adapt the filter to the sample rate X ms (which is defined in TS 38.133) and apply the configured filterCoefficient k for filtering, and it is up to UE implementation.

Proposal 2c: the UE and the gNB have the same understanding on the sample rate X when the gNB configuring k and the UE adapting the filter.

- [014] Chair Comment: There is no consensus to change the TS. The rapporteur-proposed R2 confirmations are not clear, E.g. 2b seems to use the wording “adapt the filter” which is also in the TS but for a slightly different adaptation, and some other parts seems to be redundant/unclear (if we for clarification say something is up to UE or gNB implementation it should be clear what), so in order to not introduce confusion neither of 2a, 2b, 2c are captured as agreements.

- [014] Chair Comment: The current situation could probably be clarified like this: For NR L3 filtering, the nominal sample rate X applicable for a measurement object is specified in TS 38.133. Both UE and NB need to have the same understanding of X in order for L3 filtering to work predictably. The actual sample rate in the UE may be different than X depending on UE implementation. Providing correct and consistent measurement object and measurement quantity configurations is the responsibility of the network (but that should be obvious).

* [014] Noted

Overheating assistance

[R2-2108571](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108571.zip) Clarification for overheating assistance information reporting Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

* [014] Noted
* [014] If the UE sent the first overheating assistance information with preference on reduced parameter A, and then the UE sends the second overheating assistance information without including the preference on reduced parameter A, the absence of parameter A means that the UE does not have any preference on reducing configuration for parameter A.
* [014] For overheating, the UE may report the reduced value larger than its current active configuration (when the overheating problem alleviates). It is up to gNB how to react to this report.

### 5.4.2 LTE changes

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

### 5.4.3 UE capabilities

* [AT115-e][015][NR15] UE Capabilties I (Ericsson)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat R2-2108379, R2-2108380, R2-2108381, R2-2108382, R2-2108581, R2-2108582, R2-2108583, R2-2108584, R2-2108676, R2-2108677, R2-2106909, R2-2107977, R2-2107978,

Intended outcome: Report, agreed CRs if applicable

Deadline: Schedule 1

[R2-2109138](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109138.zip) Summary of offline 015 Rel-15 UE caps I Ericsson

* [015] Noted, agreements reflected below

Fallback BC

[R2-2108379](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108379.zip) Resolving unclarity in fallback band combination definition Ericsson CR Rel-15 38.306 15.14.0 0623 - F NR\_newRAT-Core

[R2-2108381](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108381.zip) Resolving unclarity in fallback band combination definition Ericsson CR Rel-16 38.306 16.5.0 0624 - F NR\_newRAT-Core

[R2-2108380](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108380.zip) Resolving unclarity in fallback band combination definition Ericsson CR Rel-15 38.331 15.14.0 2774 - F NR\_newRAT-Core

[R2-2108382](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108382.zip) Resolving unclarity in fallback band combination definition Ericsson CR Rel-16 38.331 16.5.0 2775 - A NR\_newRAT-Core

* [015] 4 CRs above not pursued

[R2-2108581](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108581.zip) Correction on fallback band combination for SUL Huawei, HiSilicon CR Rel-15 38.331 15.14.0 2779 - F NR\_newRAT-Core

[R2-2108582](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108582.zip) Correction on fallback band combination for SUL Huawei, HiSilicon CR Rel-16 38.331 16.5.0 2780 - A NR\_newRAT-Core

[R2-2108583](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108583.zip) Correction on fallback band combination for SUL Huawei, HiSilicon CR Rel-15 38.306 15.14.0 0632 - F NR\_newRAT-Core

[R2-2108584](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108584.zip) Correction on fallback band combination for SUL Huawei, HiSilicon CR Rel-16 38.306 16.5.0 0633 - A NR\_newRAT-Core

* [015] 4 CRs above Agreed

[R2-2108576](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108576.zip) Clarifcation on BC fallback and spCellPlacement Huawei, HiSilicon CR Rel-15 38.306 15.14.0 0628 - F NR\_newRAT-Core

[R2-2108577](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108577.zip) Clarifcation on BC fallback and spCellPlacement Huawei, HiSilicon CR Rel-16 38.306 16.5.0 0629 - A NR\_newRAT-Core

* [015] 2 CRs above not pursued
* [015] RAN2 confirms that when releasing an SCell the UE should also support its remaining configuration, including the PCell which is configured according to the UE supported CarrierAggregationVariant (if applicable)

Fallback for Feture set per CC

[R2-2106909](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106909.zip) Reply LS on fallback applicability for FeatureSetDownLinkPerCC capability fields (R1-2106133; contact: ZTE) RAN1 LS in Rel-16 NR\_eMIMO-Core To:RAN2 Cc:RAN4

Moved from 6.1

* [015] Noted

[R2-2107977](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107977.zip) Definition of fallback per CC feature set Ericsson, ZTE Corporation, Sanechips CR Rel-15 38.306 15.14.0 0618 - F NR\_newRAT-Core

[R2-2107978](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107978.zip) Definition of fallback per CC feature set Ericsson, ZTE Corporation, Sanechips CR Rel-16 38.306 16.5.0 0619 - A NR\_newRAT-Core

* [015] Both revised

[R2-2109139](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109139.zip) Definition of fallback per CC feature set Ericsson, ZTE Corporation, Sanechips, Nokia, Nokia Shanghai Bell CR Rel-15 38.306 15.14.0 0618 1 F NR\_newRAT-Core

[R2-2109140](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109140.zip) Definition of fallback per CC feature set Ericsson, ZTE Corporation, Sanechips, Nokia, Nokia Shanghai Bell CR Rel-16 38.306 16.5.0 0619 1 A NR\_newRAT-Core

* [015] both Agreed
* [AT115-e][016][NR15] UE Capabilties II (Huawei)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat R2-2108574, R2-2108575, R2-2107390, R2-2108578, R2-2108579, R2-2108580, R2-2106958, R2-2107980, R2-2106963, R2-2108572, R2-2108573, R2-2107130, R2-2107389,

Intended outcome: Report, agreed CRs if applicable

Deadline: Schedule 1

[R2-2109162](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109162.zip) Summary of [AT115-e][016][NR15] UE Capabilities II Huawei, HiSilicon

* [016] Noted, agreements reflected below

BW handling

[R2-2108574](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108574.zip) Introduction of NR channel bandwidth capability for LTE-to-NR HO case Huawei, HiSilicon CR Rel-15 36.331 15.14.0 4716 - F NR\_newRAT-Core

[R2-2108575](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108575.zip) Introduction of NR channel bandwidth capability for LTE-to-NR HO case Huawei, HiSilicon CR Rel-16 36.331 16.5.0 4717 - A NR\_newRAT-Core

* [016] Both Not Pursued for Rel-15

[R2-2107390](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107390.zip) UE Capability filtering solution for EN-DC BC selection issue NTT DOCOMO, Inc. discussion Rel-17 TEI17

Moved here from 8.21

- [016] Chair: Can still consider whether to make a change for Rel-17.

* [016] Noted, proposals not agreed for Rel-15

[R2-2108578](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108578.zip) Support of newly introuduced 100M bandwidth for band n40 Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

* [016] Noted
* [016] Proposal 1 is agreed
* [Post115-e][060][NR15] Support of 100M bandwidth for band n40 (Huawei)

Scope: CR covering P1 in R2-2108578, as discussed in [AT115-e][016]

Intended outcome: Agreed CR(s)

Deadline: Short (for RP)

[R2-2107980](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107980.zip) Allowed bandwidth in BWP configuration Ericsson discussion

* [016] noted
* [016] R2 Confirms the following understanding:

When configuring a UE with a dedicated BWP that is not within the channel bandwidth that the UE applied when acquiring SIB1, the network configures the downlinkChannelBW-PerSCS-List and/or uplinkChannelBW-PerSCS-List and firstActiveBWPID so that the channel bandwidth covers at least the active BWP. UE behaviour is not specified when channel bandwidth doesn't contain active BWP size.

The network avoids DCI- and timer-based BWP switching to BWPs that are not within current channel bandwidth

SimultaneousRxTx

[R2-2106958](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2106958.zip) Reply LS on simultaneous Rx/Tx capability (R4-2108003; contact: Qualcomm) RAN4 LS in Rel-15 NR\_newRAT To:RAN2

Moved from 5.1

[R2-2106963](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2106963.zip) Reply LS on simultaneous Rx/Tx capability (R4-2111452; contact: Huawei) RAN4 LS in Rel-15 NR\_newRAT To:RAN2

Moved from 5.1

* [016] Both Noted

[R2-2107130](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107130.zip) Simultaneous Rx/Tx UE capability Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core

[R2-2107389](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107389.zip) Considerations on simultaneous Rx/Tx capability per band pair NTT DOCOMO, Inc. discussion Rel-15

* [016] Both Noted
* [016] The solution in R2-2107389 is pursued as the baseline signalling of introducing the new capability signalling to support simultaneous Rx/Tx capability in a finer granularity for a band combination.
* [016] Confirm the following interpretation of simultaneousRxTxInterBandCA that does not cause any interoperability issue.

1: The UE indicating the support for simultaneousRxTxInterBandCA for an NR-DC band combination is considered to support simultaneous Rx/Tx for any pair of TDD-FDD / TDD-TDD bands, including intra-CG and inter-CG.

2: The UE not indicating the support for simultaneousRxTxInterBandCA for an NR-DC band combination is considered not to support simultaneous Rx/Tx for any pair of TDD-FDD / TDD-TDD bands, including intra-CG and inter-CG.

3: In case 2, the legacy network would not configure the UE with NR-DC due to the lack of inter-node resource coordination mechanism, or shall avoid simultaneous Rx/Tx across CGs (e.g. via an implementation specific solution).

* [Post115-e][087][NR15] Simultaneous Rx/Tx cap finer granularity (NTT DOCOMO)

Scope: Aim to conclude in Q4. Progress based on R2-2107389. Consider also using the selectedBandEntriesMNList field to check the per-band-pair simultaneous Rx/Tx capability in NR-DC, (NG)EN-DC, and NE-DC. Consider also Inter-Node Coordination. If needed, can also disucss the scope in the beginning of the email discussion.

Intended outcome: Report, CRs Agreeable to the extent possible / reasonable.

Deadline: Long

[R2-2108572](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108572.zip) Clarification on the simultaneousRxTxInterBandCA capability in NR-DC Huawei, HiSilicon, Ericsson CR Rel-15 38.306 15.14.0 0561 2 F NR\_newRAT-Core R2-2106128

[R2-2108573](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108573.zip) Clarification on the simultaneousRxTxInterBandCA capability in NR-DC Huawei, HiSilicon, Ericsson CR Rel-16 38.306 16.5.0 0562 2 A NR\_newRAT-Core R2-2106129

* [016] Both revised
* [016] Using the selectedBandEntriesMNList field to check the per-band-pair simultaneous Rx/Tx capability in NR-DC, (NG)EN-DC, and NE-DC is is considered in CR discussion for R2-2107389.

[R2-2109166](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109166.zip) Clarification on the simultaneousRxTxInterBandCA capability in NR-DC Huawei, HiSilicon, Ericsson CR Rel-15 38.306 15.14.0 0561 3 F NR\_newRAT-Core R2-2106128

[R2-2109167](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109167.zip) Clarification on the simultaneousRxTxInterBandCA capability in NR-DC Huawei, HiSilicon, Ericsson CR Rel-16 38.306 16.5.0 0562 3 A NR\_newRAT-Core R2-2106129

* [016] Both agreed
* [AT115-e][017][NR15] UE Capabilties III (ZTE)

Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat R2-2107600, R2-2107601, R2-2106908, R2-2108346, R2-2106956, R2-2108038, R2-2108039, R2-2108718, R2-2108719, R2-2108749, R2-2108751,

Intended outcome: Report, agreed CRs if applicable

Deadline: Schedule 1

[R2-2109062](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109062.zip) Summary of offline [AT115-e][017][NR15] UE Capabilties III (ZTE) ZTE Corporation, Sanechips

* [017] noted, agreements reflected below

Mimo

[R2-2107600](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107600.zip) Correction to the description of additionalActiveTCI-StatePDCCH Apple CR Rel-15 38.306 15.14.0 0612 - F NR\_newRAT-Core

Moved from 6.1.4.3

[R2-2107601](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107601.zip) Correction to the description of additionalActiveTCI-StatePDCCH Apple CR Rel-16 38.306 16.5.0 0613 - A NR\_newRAT-Core

* [017] Both revised

[R2-2109048](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109048.zip) Correction to the description of additionalActiveTCI-StatePDCCH Apple CR Rel-15 38.306 15.14.0 0612 1 F NR\_newRAT-Core

[R2-2109049](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109049.zip) Correction to the description of additionalActiveTCI-StatePDCCH Apple CR Rel-16 38.306 16.5.0 0613 1 A NR\_newRAT-Core

* [017] Both Agreed

RI bit in EN-DC

[R2-2106908](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106908.zip) Reply LS on RI bit width for Cat5 UE in EN-DC mode (R1-2106108; contact: Nokia) RAN1 LS in Rel-15 NR\_newRAT-Core To:RAN2

Moved from 5.1

[R2-2108346](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108346.zip) Clarification to RI bit width for Cat5 in EN-DC Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

* [017] 2 tdocs above noted
* [017] Capture the below NOTE 1 in the field description of fourLayerTM3-TM4-r15 in (Rel-16) 36.306 about the RI bit width for Cat5 UEs. (Proponent can prepare the CR in the phase 2)

NOTE 1: Cat5 UE supporting only 2-layer spatial multiplexing for EN-DC will still determine the RI bit width according TS36.212 [22], which means it may still use 2-bit RI bit width despite not supporting more than 2-layer spatial multiplexing.

[R2-2109161](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109161.zip) Clarification to RI bit width for Cat5 Nokia, Nokia Shanghai Bell CR Rel-16 36.306 16.5.0 1823 1 F NR\_newRAT-Core

* [017] Agreed

Intra-band and Inter-band UE capability

[R2-2106956](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2106956.zip) Reply LS on the Intra-band and Inter-band (NG)EN-DC/NE-DC Capabilities (R4-2107907; contact: ZTE) RAN4 LS in Rel-15 NR\_newRAT-Core To:RAN2 Cc:RAN1

Moved from 5.1

* [017] Noted

[R2-2108038](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108038.zip) CR on the Intra-band and Inter-band EN-DC Capabilities - R15 ZTE Corporation, Sanechips CR Rel-15 38.306 15.14.0 0517 3 F NR\_newRAT-Core R2-2105182

[R2-2108039](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108039.zip) CR on the Intra-band and Inter-band EN-DC Capabilities - R16 ZTE Corporation, Sanechips CR Rel-16 38.306 16.5.0 0518 3 A NR\_newRAT-Core R2-2105183

* [017] revised

R2-2109063 CR on the Intra-band and Inter-band EN-DC Capabilities - R15 ZTE Corporation, Sanechips CR Rel-15 38.306 15.14.0 0517 4 F NR\_newRAT-Core R2-2105182

R2-2109064 CR on the Intra-band and Inter-band EN-DC Capabilities - R16 ZTE Corporation, Sanechips CR Rel-16 38.306 16.5.0 0518 4 A NR\_newRAT-Core R2-2105183

* [017] Agreed

IMS Capability

[R2-2108718](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108718.zip) Clarification on IMS video over split bearer in (NG)EN-DC Google Inc. CR Rel-15 36.306 15.10.0 1811 1 F NR\_newRAT-Core R2-2105188

[R2-2108719](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108719.zip) Clarification on IMS video over split bearer in (NG)EN-DC Google Inc. CR Rel-16 36.306 16.5.0 1812 1 A NR\_newRAT-Core R2-2105189

[R2-2108749](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108749.zip) Clarification on IMS video over split bearer in NR-DC and NE-DC Google Inc. CR Rel-15 38.306 15.14.0 0581 1 F NR\_newRAT-Core R2-2105190

[R2-2108751](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108751.zip) Clarification on IMS video over split bearer in NR-DC and NE-DC Google Inc. CR Rel-16 38.306 16.5.0 0582 1 A NR\_newRAT-Core R2-2105191

* [017] 4 CRs above are not pursued

### 5.4.4 Idle/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 (5.4.1.x)

Treated by email together with NR16 in [030]

[R2-2108364](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108364.zip) Clarification of barring when TAC is missing in RAN sharing Qualcomm Incorporated CR Rel-15 38.304 15.7.0 0216 - F NR\_newRAT-Core

[R2-2108365](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108365.zip) Clarification of barring when TAC is missing in RAN sharing Qualcomm Incorporated CR Rel-16 38.304 16.5.0 0217 - A NR\_newRAT-Core

* [030] Both revised

[R2-2109110](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109110.zip) Clarification of barring when TAC is missing in RAN sharing Qualcomm Incorporated, Ericsson CR Rel-15 38.304 15.7.0 0216 1 F NR\_newRAT-Core

R2-2109111 Clarification of barring when TAC is missing in RAN sharing Qualcomm Incorporated, Ericsson CR Rel-16 38.304 16.5.0 0217 1 A NR\_newRAT-Core

* [030] Both agreed

[R2-2107263](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107263.zip) Corrections to intra-frequency cell reselection for MIB, SIB1 acquisition failure and TAC absence in SIB1 Lenovo, Motorola Mobility CR Rel-16 38.331 16.5.0 2716 - F NR\_unlic-Core, NG\_RAN\_PRN-Core

Moved from 6.1.4.1.3

* [030] Agreed

[R2-2108481](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108481.zip) Cell barring due to SIB1 acquisition failure Lenovo, Motorola Mobility discussion Rel-15 NR\_newRAT-Core

* [030] If the UE is unable to acquire the *SIB1* for a cell, the UE may exclude this cell as a candidate for cell selection/reselection for up to 300 seconds. The UE shall follow MIB IFRI for other cells on the same frequency.
* [030] Update the CR in R2-2108481 according to agreement above by a short post-meeting email discussion.
* [Post115-e][061][NR15] Cell barring due to SIB1 acquisition failure (Lenovo)

Scope: CR(s) based on R2-2108481, related agreements and comments.

Intended outcome: Agreed CRs

Deadline: Short (for RP)

## 5.5 Positioning corrections

Corrections to both the stage 2 and stage 3 aspects related to positioning. Stage 2 CRs 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.

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

[R2-2106928](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106928.zip) Reply LS on E-CID LTE measurement in Rel-15 measurements (R3-212802; contact: Huawei) RAN3 LS in Rel-15 NR\_pos-Core To:RAN2

[R2-2107329](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107329.zip) Correction to E-CID-R15 Huawei, HiSilicon CR Rel-15 38.305 15.8.0 0063 2 F NR\_newRAT-Core R2-2105052

[R2-2107330](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107330.zip) Correction to E-CID-R16 Huawei, HiSilicon CR Rel-16 38.305 16.5.0 0064 2 F NR\_newRAT-Core R2-2105053

[R2-2107785](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107785.zip) Correction on ProvideCapabilities and ProvideLocationInformation Samsung CR Rel-15 37.355 15.2.0 0316 - A TEI14

R2-2107786 Correction on ProvideCapabilities and ProvideLocationInformation Samsung CR Rel-16 37.355 16.5.0 0317 - A TEI14

[R2-2108407](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108407.zip) Correction for Roles of gNB and ng-eNB for positioning in release-15 Ericsson CR Rel-15 38.305 15.8.0 0079 - F NR\_newRAT-Core

# 6 Rel-16 NR Work Items

Essential corrections. While high maintenance intensity is expected, Rel-16 corrections are treated separately per WI.

Tdoc Limitation: 25 tdocs in total for all sub agenda items, or the restriction for each sub-AI, whichever is more restrictive.

## 6.1 Common

NOTE that the merge of many WIs into a common R16 maintenance AI is new.

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

(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 6.1.X. LTE-only corrections, see AI 7.

### 6.1.1 Organisational

Incoming LSs, etc.

No Action

[R2-2106943](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106943.zip) Reply LS on LS Reply on QoS Monitoring for URLLC (R3-212937; contact: Huawei) RAN3 LS in Rel-16 To:SA5 Cc:RAN2, SA2

No Action. Proposed Noted [000]

* [000] Noted

CLI

[R2-2106937](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106937.zip) Response LS on Exchange of information related to SRS-RSRP measurement resource configuration for UE-CLI (R3-212889; contact: ZTE) RAN3 LS in Rel-16 NR\_CLI\_RIM To:RAN2 Cc:RAN1

There is no related input at current meeting. Proposed to be Noted [000]

* [000] Noted

### 6.1.2 Stage 2 corrections

You should discuss your stage 2 CRs with the specification rapporteurs before submission.

* [AT115-e][018][NR15NR16] Stage-2 (Huawei)

Scope: Determine agreeable parts and agree CRs, Treat R2-2108211 (NR15), R2-2108212 (NR15), R2-2108602, R2-2106914, R2-2107165, R2-2107664, R2-2108344, R2-2108439,

Intended outcome: Report, Agreed CRs.

Deadline: Schedule 1

[R2-2109099](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109099.zip) Report of [AT115-e][018][NR15NR16] Stage-2 (Huawei) Huawei, HiSilicon

* [018] noted, agreements reflected below and in subclause 5.2.2

#### 6.1.2.1 TS 3x.300

[R2-2108602](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108602.zip) Miscellaneous corrections to eURLLC for 38.300 Huawei, HiSilicon, Nokia, Nokia Shanghai Bell, OPPO CR Rel-16 38.300 16.6.0 0387 - F NR\_L1enh\_URLLC-Core

* [018] revised

[R2-2109100](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109100.zip) Miscellaneous corrections to eURLLC for 38.300 Huawei, HiSilicon, Nokia, Nokia Shanghai Bell, OPPO, CATT CR Rel-16 38.300 16.6.0 0387 1 F NR\_L1enh\_URLLC-Core

* [018] Agreed

[R2-2106914](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106914.zip) LS on correction to Rel-16 HARQ description in TS38.300 (R1-2106205; contact: Huawei) RAN1 LS in Rel-16 NR\_unlic-Core To:RAN2

* [018] Noted

[R2-2107165](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107165.zip) Correction to Rel-16 HARQ description Huawei, HiSilicon CR Rel-16 38.300 16.6.0 0381 - F NR\_unlic-Core

- [018] Rap: Changes in R2-2107165 are agreed with revisions to CR coversheet where “NR-NSA” should be changed to “NR-DC, (NG)EN-DC, NE-DC” in “impacted 5G architecture options”.

* [018] revised

[R2-2109069](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109069.zip) Correction to Rel-16 HARQ description Huawei, HiSilicon CR Rel-16 38.300 16.6.0 0381 1 F NR\_unlic-Core

* [018] Agreed

[R2-2107664](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107664.zip) CR for duplication deactivation Samsung CR Rel-16 38.300 16.6.0 0382 - F NR\_IIOT-Core

* [018] not pursued

[R2-2108344](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108344.zip) Clarification of PNI-NPN and NE-DC Qualcomm Incorporated CR Rel-16 38.300 16.6.0 0386 - F NG\_RAN\_PRN-Core

* [018] not pursued

#### 6.1.2.2 TS 37.340

[R2-2108439](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108439.zip) Corrections for fast MCG link recovery Huawei, HiSilicon CR Rel-16 37.340 16.6.0 0283 - F LTE\_NR\_DC\_CA\_enh-Core

* [018] not pursued

### 6.1.3 User Plane corrections

* [AT115-e][019][NR16] MAC I (vivo)

Scope: Take on-line outcome into account, Treat remaining aspects, determine agreeable parts and agree CRs Treat R2-2106926, R2-2106997, R2-2108232, R2-2107927, R2-2108092, R2-2108093, R2-2107198, R2-2107609, R2-2107163, R2-2107160, R2-2107161, R2-2108781.

Intended outcome: Report, Agreed CRs, LS out

Deadline: On-Line first, Schedule 1

[R2-2109084](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109084.zip) Report of [AT114-e][019][NR16] MAC I (vivo) vivo

* [019] Noted, agreements reflected below

UL skip

Treat online first

[R2-2106926](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106926.zip) LS on UL skipping for PUSCH in Rel-16 (R1-2106370; contact: vivo) RAN1 LS in Rel-16 NR\_newRAT-Core, TEI16 To:RAN2

* Noted

[R2-2108092](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108092.zip) Corrections to R16 UL skipping with repetitions    Ericsson, NTT DOCOMO INC.    discussion

* Noted

[R2-2108093](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108093.zip) Corrections to R16 UL skipping with repetitions    Ericsson, NTT DOCOMO INC.    CR    Rel-16    38.321    16.5.0    1135    -    F    NR\_IIOT-Core

* Not Pursued

DISCUSSION

- Huawei think both RRC or MAC based impl could work.

- HW Think that the condition on LCH prioritization is not nessecarily valid, there are proposals to remove it. LG agrees. ZTE think this is still under discussion in R1, Oppo also think this need to be confirmed in R1.

- LG prefer to specify in RRC think this is natural. Samsung also think RRC is better and think that was the intention by R1, but think the RRC CR can be simpler, e.g. acc to Oppo or MTK CR, prefer these.

- Apple think that MAC impl is more complex think RRC could be better.

- MTK think that as late in the release it is better to modify RRC.

- QC think we should stick to RRC, and this was the intention in R1.

- ZTE also prefer RRC. Lenovo and Oppo prefer RRC.

- Nokia support MAC but agrees R1 intention was RRC.

- Chair: We go with an RRC solution, and as there was support to go for simpler text as in MTK, and OPPO papers below, suggest a multi-sourced joint CR.

* We go with a RRC solution.

[R2-2108232](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108232.zip) On enhanced UL skipping and PUSCH repetitions    MediaTek Inc.    discussion    Rel-16    TEI16

* Noted, Proposal is merged

[R2-2107198](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107198.zip) Correction on UL skipping with lch-basedPrioritization    CATT, Samsung    CR    Rel-16    38.321    16.5.0    1098    1    F    NR\_IIOT-Core    [R2-2104896](file:///C:\3GPP%20meetings\RAN2\2021\TSGR2_115-e\docs\R2-2104896.zip)

- Ericsson think this is not decided yet in R1 what should be the behaiovur is both LCH based prio and L1 prio is configured at the same time. QC think we should wait for R1, thin kwe could make a WA as there is a lot fo support, can also send an LS to R1. Xiaomi agree with this.

- CATT want to consider majority of cases, there is one grant, and you’d have the same behaviour independent of whether both are configured or not.

- vivo support this CR. Huawei also support and support the explanation by CATT. Huawei think we stated that if R1 found issues they would come back, we should not wait for R1.

- Oppo think there is still some discussion in R1 on simultanours configuration.

- Apple support to have this and the explanations for it.

- Nokia agrees with the CR. Samsung as well and think LCH based prio is a R2 feature and think R1 may not care about it.

- MTK are ok with the CR. Lenovo and LG support.

* Agree to remove the condition as proposed in this CR, send an LS to R1.

Monday W2

* Agreed

Monday W2 on-line

[R2-2109085](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109085.zip) LS to RAN1 on UL skipping with LCH-based prioritization RAN2 LSout Rel-16 NR\_IIOT-Core

- [019] LS prepared

* LS is approved (this is the final version)

[R2-2107927](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107927.zip) CR on the enabling restriction on R16 PUSCH skipping and PUSCH repetitions    OPPO    CR    Rel-16    38.331    16.5.0    2745    -    F    TEI16

* Merged

[R2-2106997](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106997.zip) Correction on UL Skipping for PUSCH in Rel-16    vivo, ZTE corporation, Xiaomi Communications    CR    Rel-16    38.331    16.5.0    2708    -    F    TEI16

Moved from 6.1.4.1.1

* Revised

[R2-2109214](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109214.zip) Correction on UL Skipping for PUSCH in Rel-16    vivo, ZTE corporation, Xiaomi Communications, MediaTek Inc., OPPO    CR    Rel-16    38.331    16.5.0    2708    1    F    TEI16

* [019] Agreed

[R2-2107160](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107160.zip) Discussion about a loophole for R16 uplink skipping procedure    Huawei, HiSilicon    discussion    Rel-16    TEI16

* [019] noted

[R2-2107161](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107161.zip) Correction on R16 uplink skipping procedure    Huawei, HiSilicon    CR    Rel-16    38.321    16.5.0    1122    -    F    TEI16

* [019] revised

[R2-2109068](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109068.zip) Correction on R16 uplink skipping procedure    Huawei, HiSilicon, vivo, Samsung    CR    Rel-16    38.321    16.5.0    1122    1    F    TEI16

* [019] Agreed

[R2-2108781](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108781.zip) Stopping configuredGrantTimer upon ignored or skipped uplink grant    LG Electronics UK CR Rel-16    38.321    16.5.0    1156    -    F    TEI16

* [019] Not pursued

[R2-2107609](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107609.zip) Enhanced UL skipping with intra-UE prioritization    Apple    CR    Rel-16    38.321    16.5.0    1131    -    F    NR\_newRAT-Core

* [019] Not pursued

[R2-2107163](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107163.zip) Discussion on R16 uplink skipping with TB repetitions    Huawei, HiSilicon    discussion    Rel-16    TEI16

* [019] noted

UCI PDU handling

* [AT115-e][020][NR16] MAC II (Samsung)

Scope: Determine agreeable parts and agree CRs Treat R2-2108257, R2-2107197, R2-2107610, R2-2108094, R2-2108095, R2-2108787, R2-2107735, R2-2107200, R2-2108283, R2-2108284, R2-2108285,

Intended outcome: Report, Agreed CRs.

Deadline: Schedule 1

[R2-2109057](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109057.zip) Report of Offline 020: MAC II Samsung

* [020] Noted, agreements reflected below

[R2-2107610](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107610.zip) UCI multiplexing and overlapped SR/PUSCH    Apple    CR    Rel-16    38.321    16.5.0    1132    -    F    NR\_newRAT-Core

* [020] Agreeable, Merged with R2-2108257

[R2-2107197](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107197.zip) Overlapping UCI and PUSCH    CATT    discussion    NR\_IIOT-Core

* [020] Noted, agreeable part captured in revision of R2-2108257

[R2-2108257](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108257.zip) Clarification of PUCCH resource in LCH-based Prioritization    Samsung    CR    Rel-16    38.321    16.5.0    1141    -    F    NR\_IIOT-Core

* [020] Revised
* [020] Add the following NOTE in 5.4.1 of TS 38.321.

NOTE X: If the MAC entity is configured with lch-basedPrioritization, the MAC entity does not take UCI multiplexing according to the procedure specified in TS 38.213 [6] into account when determining whether the PUSCH duration of an uplink grant overlaps with the PUCCH resource for an SR transmission.

* [020] Add the following NOTE in 5.4.4 of TS 38.321.

NOTE Y: If the MAC entity is configured with lch-basedPrioritization, the MAC entity does not take UCI multiplexing according to the procedure specified in TS 38.213 [6] into account when determining whether the valid PUCCH resource for the SR transmission can be signalled by the physical layer and occasion overlaps with the PUSCH duration of an uplink grant or a MSGA payload.

[R2-2109156](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109156.zip) Clarification of PUCCH resource in LCH-based Prioritization    Samsung, CATT, Apple    CR    Rel-16    38.321    16.5.0    1141    1    F    NR\_IIOT-Core

* [020] Agreed

[R2-2108094](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108094.zip) Corrections to retransmission of configured grant with empty buffer    Ericsson, MediaTek Inc.    discussion

[R2-2108787](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108787.zip) UCI on retransmission uplink grant    LG Electronics UK    discussion    TEI16

[R2-2107735](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107735.zip) Ignoring the retransmission grant overlapped with UCI    OPPO    discussion    Rel-16    TEI16

* [020] 3 tdocs above Noted
* [020] RAN2 confirms in Rel-16 to follow the legacy Rel-15 handling of UL grant addressed to C-RNTI/CS-RNTI with empty HARQ buffer: ignore grant if addressed to CS-RNTI with empty HARQ buffer; obtain new MAC PDU to transmit if addressed to C-RNTI with empty HARQ buffer. (No specification change)

[R2-2108095](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108095.zip) Corrections to retransmission of configured grant with empty buffer    Ericsson, MediaTek Inc.    CR    Rel-16    38.321    16.5.0    1136    -    F    NR\_IIOT-Core

* [020] Not Pursued

[R2-2107200](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107200.zip) Handling of pending empty PDUs after UCI multiplexing    CATT    discussion    NR\_IIOT-Core

[R2-2108283](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108283.zip) Autonomous Transmission of MAC PDU with only Padding or Periodic BSR    Nokia, Nokia Shanghai Bell    discussion    Rel-16    NR\_IIOT-Core

* [020] 2 tdocs above Noted
* [020] RAN2 will not introduce a mechanism to avoid autonomous transmission of a MAC PDU that includes only padding BSR or periodic BSR indicating no data, in Rel-16. (No specification change)

[R2-2108284](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108284.zip) Avoiding autonomous transmission of MAC PDU with only Padding BSR or unuseful Periodic BSR – Option 1    Nokia, Nokia Shanghai Bell    CR    Rel-16    38.321    16.5.0    1146    -    F    NR\_IIOT-Core

[R2-2108285](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108285.zip) Avoiding autonomous transmission of MAC PDU with only Padding BSR or unuseful Periodic BSR – Option 2    Nokia, Nokia Shanghai Bell    CR    Rel-16    38.321    16.5.0    1147    -    F    NR\_IIOT-Core

* [020] Both Not Pursued

* [AT115-e][021][NR16] MAC III (ZTE)

Scope: Determine agreeable parts and agree CRs, Treat R2-2108267, R2-2107481, R2-2107569, R2-2107199, R2-2108120, R2-2108343, R2-2107062, R2-2107656, R2-2108785, R2-2108767, R2-2107010, R2-2107782, R2-2108096, R2-2108266, R2-2108603,

Intended outcome: Report, Agreed CRs.

Deadline: Schedule 1

[R2-2109192](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109192.zip) [AT115-e][021][NR16] MAC III (ZTE) ZTE (Rapporteur)

* [021] Noted, agreements reflected below

IIOT URLLC

[R2-2108267](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108267.zip) Correction to 38.321 on priority handling about the UL grant addressed to TC-RNTI    ZTE Corporation, Sanechips    CR    Rel-16    38.321    16.5.0    1145    -    F    NR\_IIOT-Core

* [021] revised

[R2-2109193](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109193.zip) Correction to 38.321 on priority handling about the UL grant addressed to TC-RNTI    ZTE Corporation, Sanechips    CR    Rel-16    38.321    16.5.0    1145    1    F    NR\_IIOT-Core

* [021] agreed

[R2-2108266](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108266.zip) Correction to 38.321 on application of the information element for extension    ZTE Corporation, Samsung    CR    Rel-16    38.321    16.5.0    1144    -    F    NR\_IIOT-Core, NR\_eMIMO-Core

* [021] Not pursued

[R2-2108096](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108096.zip) Corrections to pdsch-HARQ-ACK-CodeBookList    Ericsson    CR    Rel-16    38.321    16.5.0    1137    -    F    NR\_L1enh\_URLLC-Core

- [021] Rap Ph1: CR is agreeable, can be revised. Check in ph2 if a LS to R1 is needed.

- [021] Chair: it seems however that the CR containing updates is not a revision of this one, but a new CR instead.

* [021] withdrawn

[R2-2109045](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109045.zip)  Corrections to pdsch-HARQ-ACK-CodeBookList    Ericsson    CR    Rel-16    38.331    16.5.0    2801    -    F    NR\_L1enh\_URLLC-Core

* [021] agreed

eMIMO

[R2-2107010](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107010.zip) Corrections to SCell BFR    Samsung Electronics Co., Ltd    CR    Rel-16    38.321    16.5.0    1121    -    F    NR\_eMIMO-Core

- [021] Rap ph1: check in phase-2 whether companies agree that UE can terminate the evaluation period once it finds a candidate beam

* [021] Not Pursued

Power Saving

[R2-2107062](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107062.zip) Discussion on reporting multiplexed CSI on PUCCH    OPPO    discussion    Rel-16    NR\_UE\_pow\_sav-Core

[R2-2108785](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108785.zip) Periodic CSI reporting with DCP    LG Electronics UK    discussion    TEI16

* [021] 2 tdocs Noted

[R2-2107656](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107656.zip) Clarification on reporting multiplexed CSI on PUCCH    OPPO, Nokia, ZTE    CR    Rel-16    38.321    16.5.0    1133    -    F    NR\_UE\_pow\_sav-Core

[R2-2108767](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108767.zip) 38.321\_CRxxxx\_(Rel-16)\_R2-210xxxx Periodic CSI report with DCP    LG Electronics UK    CR    Rel-16    38.321    16.5.0    1155    -    F    TEI16

* [021] 2 CRs not pursued

NR-U

[R2-2107481](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107481.zip) Correction on starting of RetransmissionTimerDL    ZTE Corporation, Sanechips    CR    Rel-16    38.321    16.5.0    1129    -    F    NR\_unlic-Core

* [021] Agreed

[R2-2108343](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108343.zip) Start of DRX RTT timer for one-shot HARQ feedback    Qualcomm Incorporated    CR    Rel-16    38.321    16.5.0    1148    -    F    NR\_unlic-Core

- [021] Rap: further discussion is needed to clarify whether something is needed (e.g. for the case of LBT failure, in case of numerical K1 etc) and decide whether the CR can be accepted or not.

* [021] Postponed

[R2-2107199](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107199.zip) Handling of Multi-TB CGs in MAC    CATT    discussion    NR\_IIOT-Core

- [021] Rap: The following Note was proposed to be captured in Chair notes: “RAN2 confirms the understanding that, in Rel-16 unlicensed band operations, for multi-TB CG configurations, MAC delivers the CG repetitions of a repetition bundle to the HARQ entity as a whole, but treats each repetition bundle opportunity independently as another group of CG transmissions delivered to the HARQ entity.”. There was no consensus.

- [021] Rapporteur suggests to mark discussion on the Note and whether to in any way clarify (e.g. in chair notes) to be postponed.

* [021] Noted

[R2-2107569](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107569.zip) Clarification on ConfigurationGrantTimer operation with the repetition transmission    Apple    CR    Rel-16    38.321    16.5.0    1130    -    F    NR\_newRAT-Core

* [021] Not pursued

[R2-2108120](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108120.zip) Condition for setting LBT\_COUNTER to Zero    ZTE Wistron Telecom AB    CR    Rel-16    38.321    16.5.0    1138    -    F    NR\_unlic-Core

* [021] Not pursued

PHR handling for E-UTRA MAC entity

[R2-2107782](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107782.zip) Clarification on E-UTRA MAC entity in PHR    Samsung    CR    Rel-16    38.321    16.5.0    1134    -    F    NR\_newRAT-Core

* [021] revised

R2-2109158 Clarification on E-UTRA MAC entity in PHR    Samsung    CR    Rel-16    38.321    16.5.0    1134    1   F    NR\_newRAT-Core

* [021] Agreed

2-step RACH

[R2-2108603](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108603.zip) Correction to MsgA grant overlapping with another UL grant for a HARQ process    Huawei, HiSilicon    CR    Rel-16    38.321    16.5.0    1153    -    F    NR\_2step\_RACH-Core

* [021] Postponed

Withdrawn

[R2-2107162](file:///C:\3GPP%20meetings\RAN2\2021\TSGR2_115-e\docs\R2-2107162.zip) Discussion on the condition of lch-basedPrioritization for UL skipping    Huawei, HiSilicon    discussion    Rel-16    TEI16    Withdrawn

[R2-2107164](file:///C:\3GPP%20meetings\RAN2\2021\TSGR2_115-e\docs\R2-2107164.zip) Discussion on reporting multiplexed CSI on PUCCH    Huawei, HiSilicon    discussion    Rel-16    TEI16    Withdrawn

#### 6.1.3.2 RLC

* [AT115-e][022][NR16] RLC & PDCP (Nokia)

Scope: Determine agreeable parts and agree CRs, Treat R2-2108248, R2-2108249, R2-2108247, R2-2107662, R2-2107665

Intended outcome: Report, Agreed CRs.

Deadline: Schedule 1

[R2-2109149](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109149.zip) Report of [AT115-e][022][NR16] RLC & PDCP (Nokia) Nokia, Nokia Shanghai Bell

* [022] Noted, agreements reflected below

[R2-2108248](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108248.zip) Conditions for incrementing RETX\_COUNT Nokia, Nokia Shanghai Bell CR Rel-16 38.322 16.2.0 0043 - F TEI16

* [022] Not Pursued

[R2-2108249](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108249.zip) Retransmission conditions upon expiry of t-PollRetransmit Nokia, Nokia Shanghai Bell CR Rel-16 38.322 16.2.0 0044 - F TEI16

* [022] Not Pursued

[R2-2108247](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108247.zip) Retransmission conditions upon expiry of t-PollRetransmit Nokia, Nokia Shanghai Bell CR Rel-16 36.322 16.0.0 0147 - F TEI16

* [022] Not Pursued

#### 6.1.3.3 PDCP

[R2-2107662](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107662.zip) CR for LTE PDCP operation after DAPS release Samsung CR Rel-16 36.323 16.3.0 0296 - F NR\_Mob\_enh-Core

* [022] revised

R2-2109076 CR for LTE PDCP operation after DAPS release Samsung CR Rel-16 36.323 16.3.0 0296 1 F NR\_Mob\_enh-Core

* [022] Agreed

R2-2107665 CR for the ciphering of EHC header Samsung CR Rel-16 38.323 16.4.0 0080 - F NR\_IIOT-Core

- [022] Rap: revised to add a generic note into PDCP: “NOTE: All fields other than PDCP PDU header and MAC-I belong to Data field”.

- [022] LG: Should also update LTE PDPC. Can be discussed next meeting.

* [022] revised

[R2-2109160](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109160.zip) CR for the ciphering of EHC header Samsung, LG Electronics CR Rel-16 38.323 16.4.0 0080 1 F NR\_IIOT-Core

* [022] Agreed

#### 6.1.3.4 SDAP

#### 6.1.3.5 BAP

### 6.1.4 Control Plane corrections

#### 6.1.4.1 NR RRC

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

##### 6.1.4.1.1 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.

* [AT115-e][023][NR16] Connection Control I (Apple)

Scope: Determine agreeable parts and agree CRs, Treat R2-2106955, R2-2107599, R2-2108638, R2-2108473, R2-2107401, R2-2106916, R2-2108106, R2-2107588, R2-2108440, R2-2108441, R2-2107571

Intended outcome: Report, Agreed CRs.

Deadline: Schedule 1

[R2-2109154](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109154.zip) Summary of [AT115-e][023][NR16] Connection Control I (Apple) Apple

* [023] Noted, agreements reflected below.

DC location reporting

[R2-2106955](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2106955.zip) Reply LS DC location reporting for intra-band UL CA (R4-2107903; contact: Huawei) RAN4 LS in Rel-16 NR\_RF\_FR1-Core To:RAN2

* [023] Noted

[R2-2107599](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107599.zip) Correction to uplink Tx DC location reporting for UL CA 2PA case Apple CR Rel-16 38.331 16.5.0 2733 - F NR\_RF\_FR1-Core

* [023] Partially merged, the correction on field description of singlePA-TxDirectCurrent included in revision of R2-2108638

[R2-2108638](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108638.zip) UE reporting of Tx DC location info for the second PA Huawei, HiSilicon CR Rel-16 38.331 16.5.0 2789 - F NR\_RF\_FR1-Core

* [023] revised

[R2-2109090](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109090.zip) UE reporting of Tx DC location info for the second PA Huawei, HiSilicon CR Rel-16 38.331 16.5.0 2789 1 F NR\_RF\_FR1-Core

* [023] Agreed

eMIMO

[R2-2108473](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108473.zip) Correction on RepetitionSchemeConfig for eMIMO Huawei, HiSilicon CR Rel-16 38.331 16.5.0 2777 - F NR\_eMIMO-Core

* [023] agreed

[R2-2107401](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107401.zip) Correction on TCI configuration for DCI format 1\_2 vivo CR Rel-16 38.331 16.5.0 2723 - F NR\_eMIMO-Core

* [023] revised

[R2-2109155](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109155.zip)   Correction on TCI configuration for DCI format 1\_2  vivo, Nokia, Nokia Shanghai Bell CR  Rel-16 38.331    16.5.0     2723       1      F     NR\_eMIMO-Core

* [023] Agreed

NR-U

[R2-2106916](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2106916.zip) Reply LS on random value generation for RMTC-SubframeOffset (R1-2106264; contact: Apple) RAN1 LS in Rel-16 NR\_unlic-Core, TEI16 To:RAN2

* [023] noted

[R2-2108106](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108106.zip) Clarification on RMTC subframe offset Ericsson CR Rel-16 38.331 16.5.0 2753 - F NR\_unlic-Core

* [023] not pursued
* [023] if the rmtc-SubframeOffset is not configured, the generation method for the random offset value is up to UE’s implementation whenever the UE chooses a random value as rmtc-SubframeOffset for measDurationSymbols (no TS change required)

[R2-2107588](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107588.zip) RSSI/CO reporting in MCG/SCGfailureinformation Apple CR Rel-16 38.331 16.5.0 2732 - F NR\_unlic-Core

* [023] not pursued

DCCA

[R2-2108440](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108440.zip) Corrections on RRC reconfiguration for fast MCG link recovery Huawei, HiSilicon CR Rel-16 38.331 16.5.0 2776 - F LTE\_NR\_DC\_CA\_enh-Core

* [023] revised

R2-2109080 Corrections on RRC reconfiguration for fast MCG link recovery Huawei, HiSilicon CR Rel-16 38.331 16.5.0 2776 1 F LTE\_NR\_DC\_CA\_enh-Core

* [023] Agreed

[R2-2108441](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108441.zip) Corrections on RRC reconfiguration for fast MCG link recovery Huawei, HiSilicon CR Rel-16 36.331 16.5.0 4715 - F LTE\_NR\_DC\_CA\_enh-Core

Moved from 6.1.4.2

* [023] revised

R2-2109066 Corrections on RRC reconfiguration for fast MCG link recovery Huawei, HiSilicon CR Rel-16 36.331 16.5.0 4715 1 F LTE\_NR\_DC\_CA\_enh-Core

* [023] Agreed

RRC Processing time

[R2-2107571](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107571.zip) RRC Processing Delay for SCell Modification Apple discussion Rel-16 NR\_newRAT-Core

Postponed last meeting

* [023] Noted, not agreed. Keep the current RRC processing delay for SCell modification as specified in RRC
* [AT115-e][024][NR16] DAPS & CHO (Nokia)

Scope: Await on-line, take into account online outcomes. Determine agreeable parts and agree CRs, Treat remaining parts for R2-2108090, R2-2107775, R2-2107085, R2-2107086, R2-2107087, R2-2107776, R2-2108817, R2-2106933, R2-2108164, R2-2107526, R2-2107527, R2-2108102, R2-2108103, R2-2108776, R2-2108777

Intended outcome: Report, Agreed CRs, approved LS.

Deadline: on-line first, Schedule 1

W2 Thursday on-ine CB

[R2-2109053](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109053.zip) Report from [AT115-e][024][NR16] DAPS & CHO (Nokia) Nokia, Nokia Shanghai Bell

* Noted, agreements reflected below, online CB for P2 and P8

DAPS

W2 Thursday on-ine CB

[R2-2107775](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107775.zip) Correction on fallback to source SDAP configuration in case of DAPS failure NEC CR Rel-16 38.331 16.5.0 2739 - F NR\_Mob\_enh-Core

- NEC indicate that 10 companies support, 4 against, and think that the line is incorrect.

- Intel thikn this line is useless, and think such CR should ony be handled by the Rapporteur.

- Ericsson (Rapporteur) are ok to have such change.

* This change is merged with the Rapporteur CR

[024]

[R2-2108817](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108817.zip) Correction to DAPS handover Google Inc. CR Rel-16 38.331 16.5.0 2800 - F NR\_Mob\_enh-Core

* [024] revised

[R2-2109144](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109144.zip) Correction to DAPS handover Google Inc. CR Rel-16 38.331 16.5.0 2800 1 F NR\_Mob\_enh-Core

* [024] Agreed

[R2-2108090](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108090.zip) On bearer release handling for DAPS HO Nokia, Nokia Shanghai Bell discussion Rel-16

* [024] Noted, no agreements

[R2-2107085](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107085.zip) Discussion on T301 issue for DAPS HO OPPO discussion Rel-16 NR\_Mob\_enh-Core

* [024] Noted, no agreements

[R2-2107086](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107086.zip) Correction on T301 for DAPS HO (alternative 1) OPPO CR Rel-16 38.331 16.5.0 2711 - F NR\_Mob\_enh-Core

[R2-2107087](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107087.zip) Correction on T301 for DAPS HO (alternative 2) OPPO CR Rel-16 38.331 16.5.0 2712 - F NR\_Mob\_enh-Core

* [024] Both not pursued

[R2-2107776](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107776.zip) Correction on SRB handling for DAPS NEC CR Rel-16 38.331 16.5.0 2740 - F NR\_Mob\_enh-Core

* [024] Changes 2, 3 and 4 from R2-2107776 are agreed and merged with NR RRC Rapporteur’s CR

CHO with SCG

Treat on-line first W1

[R2-2106933](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106933.zip) Response LS on Conditional Handover with SCG configuration scenarios (R3-212848; contact: Nokia) RAN3 LS in Rel-16 NR\_Mob\_enh-Core, LTE\_feMob-Core To:RAN2

* Noted

[R2-2107526](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107526.zip) On supporting CHO with SCG configuration Nokia, Nokia Shanghai Bell discussion Rel-16 NR\_Mob\_enh-Core

* Noted

[R2-2108164](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108164.zip) Discussion on CHO with SCG configuration ZTE Corporation, Sanechips discussion Rel-16 NR\_Mob\_enh-Core

* Noted

DISCUSSION on-line on the three tdocs above

- Ericsson think the agreement was to do the R2 part but not the R3 part in R16, which would be ok, i.e. do nothing now.

- QC see no issue from R2 support, but think we should have a capability for it, e.g. for non-colocated cells.

- MTK aligned with ZTE, think the use case is for blind handling i.e. to handle SCG without measurments.

- LG support ZTE, think there is the case when the UE is configured with multiple SCG configs and we need to discuss how this works.

- vivo also support ZTE, think this is in R17, but anyway agrees that there may be a need to have UE cap.

- Apple support ZTE. Samsung as well. Huawei as well. Intel too.

* CHO with SCG configuration is not supported in Rel-16. R2 assumes this will be supported in Rel-17.
* Offline: agree reply LS and determine R2 TS impact, if any (Nokia).

[024]

* [024] Capture in Stage-3 specification (TS 38.331, TS 36.331) that CHO with SCG configuration is not supported in Rel-16.

[R2-2109170](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109170.zip) No support for CHO with SCG configuration Nokia, Nokia Shanghai Bell, ZTE Corporation, Sanechips CR Rel-16 38.331 16.5.0 2803 - F NR\_Mob\_enh-Core

* [024] Agreed

[R2-2109171](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109171.zip) No support for CHO with SCG configuration Nokia, Nokia Shanghai Bell, ZTE Corporation, Sanechips CR Rel-16 36.331 16.5.0 4721 - F LTE\_feMob-Core

* [024] Agreed

[R2-2107527](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107527.zip) Response LS on CHO with SCG configuration Nokia, Nokia Shanghai Bell LS out Rel-16 NR\_Mob\_enh-Core To:RAN3

* [024] revised

[R2-2109172](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109172.zip) Response LS on CHO with SCG configuration RAN2 LS out Rel-16 NR\_Mob\_enh-Core To:RAN3

* [024] LS out is approved

**CHO**

W2 Thursday on-ine CB

[R2-2108102](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108102.zip) RRC connection re-establishment with CPC configuration Ericsson CR Rel-16 38.331 16.5.0 2751 - F NR\_Mob\_enh-Core

- Oppo think the behaviour is correct already now, as CHO and CPC will not be configured at the same time. Think that MR-DC will be released in any case for CPC before the reestablishment request is sent.

- LG Nokia Lenovo Samsung agree with Oppo.

- QC wonder if the TS now says that the UE need to keep monitoring at cell selection. Ericsson believes yes, and this is the reason to change. QC think it is ok, and makes it future proof.

- Chair: Change seems correct but the end result seems to be ok also without this. Not much support.

- Companies believe that during cell selection for reestablishment the UE shall not be required to monitor for CPC. Chair think that monitoring is not really a R2 thing, as it is also up to impl and R4 requirements, but there is likely leeway for such interpretation as cell selection is normally short.

* Not Pursued

[R2-2108103](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108103.zip) RRC connection re-establishment with CPC configuration Ericsson CR Rel-16 36.331 16.5.0 4705 - F LTE\_feMob-Core

* Not Pursued

##### 6.1.4.1.4 Inter-Node RRC messages

Included in offline discussion above

[R2-2108776](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108776.zip) Signalling of HOReqACK msg upon serving cell configuration update Samsung Electronics discussion NR\_Mob\_enh-Core, LTE\_feMob-Core

* [024] Noted, no agreements

Not treated

[R2-2108777](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108777.zip) [Draft] LS on reflecting source cell configuration update in Conditional Handover Samsung Electronics LS out Rel-16 NR\_Mob\_enh-Core, LTE\_feMob-Core To:RAN3

##### 6.1.4.1.2 RRM and Measurements

* [AT115-e][025][NR16] RRM & Measurements (Ericsson)

Scope: Determine agreeable parts and agree CRs, Treat R2-2108104, R2-2108105, R2-2108288, R2-2108289, R2-2108652, R2-2107562, R2-2107504

Intended outcome: Report, Agreed CRs.

Deadline: Schedule 1

[R2-2109055](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109055.zip) Report of [AT115-e][025][NR16] RRM & Measurements (Ericsson) Ericsson

* [025] Noted, agreements reflected below

CHO

[R2-2108104](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108104.zip) Modification of measId for conditional reconfiguration Ericsson CR Rel-16 38.331 16.5.0 2752 - F NR\_Mob\_enh-Core

* [025] revised

R2-2109150 Modification of measId for conditional reconfiguration Ericsson CR Rel-16 38.331 16.5.0 2752 1 F NR\_Mob\_enh-Core

* [025] Agreed

[R2-2108105](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108105.zip) Modification of measId for conditional reconfiguration Ericsson CR Rel-16 36.331 16.5.0 4706 - F LTE\_feMob-Core

* [025] revised

R2-2109151 Modification of measId for conditional reconfiguration Ericsson CR Rel-16 36.331 16.5.0 4706 1 F LTE\_feMob-Core

* [025] Agreed

NeedForGap

[R2-2108288](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108288.zip) Measurement and gap configuration for Need for Gaps Ericsson discussion Rel-16 TEI16

* [025] Noted
* [025] RAN2 confirms that configuration of measurement objects without setup of corresponding measurement gap configuration (if needed by UE) will be accepted by UE (i.e. not consider inability to comply with the RRCReconfiguration and trigger re-establishment), but measurements may not be performed.

[R2-2108289](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108289.zip) Clarification on measurement and measurement gap configuration Ericsson CR Rel-16 38.331 16.5.0 2761 - F TEI16

* [025] Not pursued

[R2-2108652](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108652.zip) NeedForGap Clarification Qualcomm Incorporated CR Rel-16 38.331 16.5.0 2794 - F TEI16

* [025] Not pursued

SNPN+DCCA

[R2-2107462](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107462.zip) Impact of SNPN Access Mode to Idle/inactive measurement FGI, Asia Pacific Telecom discussion

Moved from 6.1.4.1

* [025] Noted, no agreements

[R2-2107504](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107504.zip) Corrections of Idle/inactive measurement under SNPN Access Mode FGI, Asia Pacific Telecom CR Rel-16 38.331 16.5.0 2729 - A NG\_RAN\_PRN-Core

Moved from 6.1.4.1

* [025] Not pursued

##### 6.1.4.1.3 System Information and Paging

* [AT115-e][026][NR16] System Information and Paging (ZTE)

Scope: Determine agreeable parts and agree CRs, Treat R2-2107722 – R22107728, R2-2108107, R2-2107011, R2-2107934, R2-2108615.

Intended outcome: Report, Agreed CRs.

Deadline: Schedule 1

W2 Monday on-line:

[R2-2109077](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109077.zip) Report of [AT115-e] [026] [NR16] System Information and Paging (ZTE) – Phase 1 ZTE Corporation, Sanschips

DISCUSSION only on P1 P2 (other proposals decided offine).

P1 P2

- ZTE point out that the solution was agreed for eMTC

- Xiaomi are ok, as for Solution 1 results in more UE power consumption.

- Chair think only the [do nothing, solution 2] options are on the table.

- Apple think this is not needed, can be handled by the network, can leave to network impl.

- LG has similar understanding as Apple, cannot see any benefits with Solution 2, as this also requires to handle legacy UEs.

- vivo think this go beyond optimization.

- SOH shows 9 company support.

- Chair: The support is clearly significant and the opponent comments seems not to be the blocking kind, and wonder whether P1P2 can be accepted: Seems acceptable.

- Apple think this solution by these proposals is not so good, think that they bring certain issues. Chair think we can assume the majority view to be the baseline and we apply it unless we change our mind at next meeting.

* For R16, we assume similar as R15, that the network implementation need to ensure that there are no issues.
* We introduce a solution, from R17, where the following is the baseline:
  + - R2-2109077 Solution 2 (i.e. UE in RRC \_INACTIVE should use the same i\_s to determine PO as for RRC \_IDLE) is supported to address the RAN and CN paging PO non-overlap problem.
    - UE capability should be introduced to indicate support for using the same i\_s in PO determination in RRC \_INACTIVE state as in RRC \_IDLE state.

CR discussion is postponed to next meeting. If needed can also further discuss variants of Solutions based on raised issues.

PO in INACTIVE

[R2-2107722](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107722.zip) PO determination in RRC\_INACTIVE for Rel-16 and later releases ZTE corporation, Ericsson,CMCC, China Telecom, China Unicom,vivo, Sanechips discussion Rel-16 NR\_newRAT-Core, LTE\_5GCN\_connect-Core

* [026] Noted

[R2-2107723](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107723.zip) Correction on PO determination for UE in inactive state-38.331 ZTE corporation, Ericsson,CMCC, China Telecom, China Unicom,vivo, Sanechips CR Rel-16 38.331 16.5.0 2736 - F NR\_newRAT-Core

[R2-2107724](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107724.zip) Correction on PO determination for UE in inactive state-38.304 ZTE corporation, Ericsson,CMCC, China Telecom, China Unicom,vivo, Sanechips CR Rel-16 38.304 16.5.0 0213 - F NR\_newRAT-Core

[R2-2107725](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107725.zip) Correction on PO determination for UE in inactive state-38.306 ZTE corporation, Ericsson,CMCC, China Telecom, China Unicom,vivo, Sanechips CR Rel-16 38.306 16.5.0 0614 - F NR\_newRAT-Core

[R2-2107726](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107726.zip) Correction on PO determination for UE in inactive state-36.331 ZTE corporation, Ericsson,CMCC, China Telecom, China Unicom,vivo, Sanechips CR Rel-16 36.331 16.5.0 4695 - F LTE\_5GCN\_connect-Core

[R2-2107727](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107727.zip) Correction on PO determination for UE in inactive state-36.304 ZTE corporation, Ericsson,CMCC, China Telecom, China Unicom,vivo, Sanechips CR Rel-16 36.304 16.4.0 0831 - F LTE\_5GCN\_connect-Core

[R2-2107728](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107728.zip) Correction on PO determination for UE in inactive state-36.306 ZTE corporation, Ericsson,CMCC, China Telecom, China Unicom,vivo, Sanechips CR Rel-16 36.306 16.5.0 1819 - F LTE\_5GCN\_connect-Core

* 6 CRs above are postponed

**NR-U**

[R2-2108107](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108107.zip) MIB correction on subCarrierSpacingCommon Ericsson CR Rel-16 38.331 16.5.0 2754 - F NR\_unlic-Core

* [026] revised

R2-2109169 MIB correction on subCarrierSpacingCommon Ericsson CR Rel-16 38.331 16.5.0 2754 1 F NR\_unlic-Core

* [026] agreed

**NPN**

[R2-2107011](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107011.zip) Corrections to SIB validity for NPN only cell Samsung Electronics Co., Ltd CR Rel-16 38.331 16.5.0 2709 - F NG\_RAN\_PRN-Core

* [026] revised

[R2-2109074](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109074.zip) Corrections to SIB validity for NPN only cell Samsung Electronics Co., Ltd CR Rel-16 38.331 16.5.0 2709 1 F NG\_RAN\_PRN-Core

* [026] agreed

[R2-2107934](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107934.zip) Clarification on the NPN-IdentityInfoList Samsung Electronics Co., Ltd CR Rel-16 38.331 16.5.0 2746 - F NG\_RAN\_PRN-Core

* [026] agreed

[R2-2108615](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108615.zip) Clarification on encoding format for HRNN Huawei, HiSilicon CR Rel-16 38.331 16.5.0 2783 - F NG\_RAN\_PRN-Core

* [026] revised

R2-2109116 Clarification on encoding format for HRNN Huawei, HiSilicon CR Rel-16 38.331 16.5.0 2783 1 F NG\_RAN\_PRN-Core

* [026] Merged with the rapporteur CR
* [AT115-e][027][NR16] CP Other & LTE (Ericsson)

Scope: Determine agreeable parts and agree CRs, For R2-2107285-7288 await on-line treat remaining part if needed, Treat R2-2108291, R2-2107129, R2-2107482, R2-2106911, R2-2108268, R2-2107485, R2-2106996, R2-2108434, R2-2108375, R2-2108189, R2-2108190, R2-2108569, R2-2108679,

Intended outcome: Report, Agreed CRs.

Deadline: Schedule 1

W2 Tuesday On-Line

[R2-2109095](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109095.zip) [AT115-e][027][NR16] CP Other & LTE (Ericsson) Ericsson

- P1 (CandidateBeamRSList) and P15 (CandidateBeamRSList) discussed on-line (see below, at respective tdocs) the rest for offline decision.

* Noted, agreements reflected below

[R2-2109096](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109096.zip) [AT115-e][027][NR16] CP Other & LTE (Ericsson) Ericsson

- [027] ph2 revision of report

* [027] Noted, agreements reflected below

##### 6.1.4.1.5 Other

Including outcome of [Post114-e][071][NR16] CandidateBeamRSList set to release (MediaTek)

W1 On-Line

[R2-2107285](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107285.zip) Report of email discussion [Post114-e][071][NR16] CandidateBeamRSList set to release (MediaTek) MediaTek Inc. discussion Rel-16 NR\_eMIMO-Core Late

Treat on-line

* Noted

DISCUSSION

- Oppo think a significant input is whether this has been deployed or not, e.g. Option C has no imp on UE impl.

- Apple prefer option C, to put restritions on the network, at least for this release, and then no one would be impacted.

- ZTE prefer Option A1 think it is clean, think there is still chance to support Option A1. Samsung support option C but could accept also the Options A and B.

- Intel think that C is a fallback, but is not really a good option going forward. B is good (or combination of C and B), A1 is acceptable. QC agrees that C is the least preferred option, between A and B prefer b but A is acceptable,

- Nokia agres that C should be excluded if possible, has some preference for A2 but could go with majority between A and B.

- Huawei UE has implemented A1 and is not compatible with B, Chair wonder if this means it is impossible to change. Huawei would need to check, but think also B is not so good for the future..

- MTK prefer A1, think maybe we can downselect between A1 and B.

- Oppo think B follow general pricnciples, but think A is also a clean solution and prefer A.

- Intel think we have captured B in the TS (almost at least), think A1 and A2 are quire different. A1 is acceptable, A2 is the least preferred option.

- QC think that we should then exclude B as it doesn’t work with Huawei implementation.

- Oppo the wonder if we go with C, what to do then for the future.

* We go for option A1 (for this and future rel, for this field)

- MTK wonder if this is now the principle for the future (for other fields). Samsung think it is only for this case and current principle in RRC can be kept. Ericsson think we just discuss case by case, right now we don’t need to discuss the future. Chair: seems that the interest to change/discuss principle is limited. Can disucss at later time, if found to be a general issue.

CRs by email

W2 Tuedsay On-Line

CONTINUED DISCUSSION

- Ericsson: clarifications for earlier agreements are needed.

- Nokia think that if we use this kind of lists in the future then we should use the same principle as for CandidateBeamRSList but see no specific case right now. ZTE agrees with Nokia.

- Intel think that we need to update the existing general text e.g. add “unless otherwise specified” etc. MTK think this is included in the current CRs. Huawei wonder which general text this is.

- OPPO wonder if we are allowed to use such construct in the future. Hope this is not used in the future.

- Chair: added “for this field” to the agreement above. No conclusion here and now to change a principle in general, for the future (but the general text need update acc to comment above). Previous discussion and agreements seems to be applicable.

[R2-2107286](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107286.zip) Handling of candidateBeamRSListExt-v1610 (option A1) MediaTek Inc. draftCR Rel-16 38.331 16.5.0 F NR\_eMIMO-Core Late

* [027] revised and reflected in a CR

[R2-2109202](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109202.zip) Handling of candidateBeamRSListExt-v1610 (option A1) MediaTek Inc. CR Rel-16 38.331 16.5.0 2807 F NR\_eMIMO-Core

* [027] agreed

[R2-2107287](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107287.zip) Handling of candidateBeamRSListExt-v1610 (option B) MediaTek Inc. draftCR Rel-16 38.331 16.5.0 F NR\_eMIMO-Core Late

[R2-2107288](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107288.zip) Handling of candidateBeamRSListExt-v1610 (option C) MediaTek Inc. draftCR Rel-16 38.331 16.5.0 F NR\_eMIMO-Core Late

* [027] Both not pursued

Misc Corrections

[R2-2108291](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108291.zip) Miscellaneous non-controversial corrections Set XI Ericsson CR Rel-16 38.331 16.5.0 2763 - F NR\_newRAT-Core, TEI16

* [027] revised, for email approval
* [Post115-e][062][NR15 NR16] RRC Misc corrections (Ericsson)

Scope: Revision of R2-2108291, R2-2108291, R15 and R16 RRC Rapporteur CRs, including merged parts from all applicable discussions.

Intended outcome: Agreed CRs

Deadline: Short (for RP)

[R2-2108587](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108587.zip) Correction on RRC multiplicity and type constraint definitions Huawei, HiSilicon CR Rel-16 38.331 16.5.0 2782 - F NR\_newRAT-Core

* [027] Not pursued

**eCall over IMS**

[R2-2107129](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107129.zip) Early implementation of eCall over IMS in NR Qualcomm Incorporated, Ericsson, Vodafone CR Rel-16 38.331 16.5.0 2714 - F TEI16

* [027] Agreed

NR-U

[R2-2107482](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107482.zip) Correction on description of lbt-FailureInstanceMaxCount in LBT-FailureRecoveryConfig ZTE Corporation, Sanechips CR Rel-16 38.331 16.5.0 2727 - F NR\_unlic-Core

* [027] Merge the Correction on description of lbt-FailureInstanceMaxCount with the 38331 Rapporteur CR
* [027] Not pursued

2-step RACH

[R2-2106911](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2106911.zip) LS on the description of RRC parameter p0-AlphaSets (R1-2106168; contact: ZTE) RAN1 LS in Rel-16 NR\_2step\_RACH-Core To:RAN2

* [027] Noted

[R2-2108268](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108268.zip) Correction to 38.331 on field description of the MsgA-TransMax ZTE Corporation, vivo, LG Electronic, OPPO, Samsung CR Rel-16 38.331 16.5.0 2760 - F NR\_2step\_RACH-Core

* [027] agreed

[R2-2107485](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107485.zip) Correction to description of po-AlfphaSets ZTE Corporation, Sanechips CR Rel-16 38.331 16.5.0 2728 - F NR\_2step\_RACH-Core

* [027] revised

R2-2109071 Correction to description of po-AlfphaSets ZTE Corporation, Sanechips CR Rel-16 38.331 16.5.0 2728 1 F NR\_2step\_RACH-Core

* [027] agreed

[R2-2106996](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2106996.zip) Correction on msg1-SubcarrierSpacing and msgA-SubcarrierSpacing vivo CR Rel-16 38.331 16.5.0 2707 - F NR\_2step\_RACH-Core

Moved from 6.1.4.1.1

- [027] Rap: Companies are asked to check open parts with their RAN1 colleagues.

* [027] Postponed

Redirection with MPS indication

[R2-2108434](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108434.zip) Correction on Redirection with MPS Indication Peraton Labs, CISA ECD, T-Mobile US, Ericsson , Qualcomm, NTT DoCoMo, AT&T, Verizon CR Rel-16 36.331 16.5.0 4714 - F NR\_newRAT-Core, TEI16

* [027] Agreed

#### 6.1.4.2 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.

Mobility

[R2-2108375](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108375.zip) Correction on ULInformationTransferMRDC(R16) ZTE Corporation, Sanechips CR Rel-16 36.331 16.5.0 4713 - F TEI16

* [027] revised

R2-2109083 Correction on ULInformationTransferMRDC(R16) ZTE Corporation, Sanechips CR Rel-16 36.331 16.5.0 4713 1 F TEI16

* [027] Agreed

SCG Failure report

[R2-2108569](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108569.zip) Discussion on compatibility issue and solutions for Rel-15 failure type definition Huawei, HiSilicon discussion Rel-16 TEI16

[R2-2108679](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108679.zip) Discussion on compatibility issue on failure type for NR SCG failure CATT discussion Rel-15

* [027] Both Noted

W2 Tuedsay On-Line

DISCUSSION

*R2-2109095 Proposal 15 Discuss online way forward on alternative solutions (both are NBC) that code point other-16 does not exist in in 36.331 Rel-15 SCGFailureInformationNR:*

*A. Introduce new ASN.1 field for ”other”*

*B. Introduce specification text that avoids the use of code point other-16.*

- LG think B is best, avoid ASN.1 impact

- Lenovo think that this was not really done by mistake, surprised of the discussion. Lenovo thikn it was expected that the network can handle the current Other code point.

- Ericsson think we decided the pricnciple for NR but didn’t notice that there was no spare value for LTE. Agree in principle that the network could handle it. Think there is also a third solution  
*C. Introduce a new parent IE*.

- Intel prefer B. ZTE as well.

- Chair thikn we then need B in any case. Then the question is whether we add something more.

- OPPO wonder then what the UE shall do, acc to current TS the UE need to indicate something, and A resolves that.

- Huawei are open for solution C.

- ZTE think B is inevitable, and C doesn’t work well.

- MTK think the problem is the unknown code point in R16, think we need to dummify this code point. Think the option C may be ok.

- Chair think there is a) an ASN.1 compatibility issue and b) a functional issue, where we need to resolve ASN.1 compatibility first.

- CATT has seen issues.

- MTK think there are no R16 UEs nor any R16 gNB in the field.

- Intel think the issue is about R16 UEs and R15 gNB, so maybe a UE fix is indeed a practical thing. C is a critical extension and doesn’t really resolve the issue for R15 gNB. Huawei and ZTE agrees.

- Chair: so we go with option B, then we can discuss whether we do something in addition.

- Ericsson would like to see CRs for options B and C.

* Introduce specification change that avoids the use of current code point *other-16*.

We continue offline: for further discussion, draft CRs to be considered (e.g. for option C that seems missing, Option B described in TP of R2-2108569).

* [Post115-e][063][NR16] SCG failure information (Huawei)

Scope: CRs for failure type in SCG failure information NR

Intended outcome: Agreed CRs

Deadline: Short (for RP)

[R2-2108189](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108189.zip) ASN.1 misalignment for the SCGFailureInformationNR message Ericsson CR Rel-16 36.331 16.5.0 4709 - F LTE\_NR\_DC\_CA\_enh-Core, NR\_unlic-Core, NR\_IAB-Core, NR\_Mob\_enh-Core

Moved from 6.1.4.1.1

[R2-2108190](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108190.zip) ASN.1 misalignment for the SCGFailureInformationNR message Ericsson CR Rel-16 38.331 16.5.0 2758 - F LTE\_NR\_DC\_CA\_enh-Core, NR\_unlic-Core, NR\_IAB-Core, NR\_Mob\_enh-Core

Moved from 6.1.4.1.1

#### 6.1.4.3 UE capabilities

UE Feature list

[R2-2106925](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2106925.zip) LS on updated Rel-16 RAN1 UE features lists for NR after RAN1#105-e (R1-2106345; contact: NTT DOCOMO, AT&T) RAN1 LS in Rel-16 NR\_2step\_RACH-Core, NR\_unlic-Core, NR\_IAB-Core, 5G\_V2X\_NRSL-Core, NR\_L1enh\_URLLC-Core, NR\_IIOT-Core, NR\_eMIMO-Core, NR\_UE\_pow\_sav-Core, NR\_pos-Core, NR\_Mob\_enh-Core, LTE\_NR\_DC\_CA\_enh-Core, TEI16, NR\_CLI\_RIM-Core To:RAN2, RAN4

Already taken into account, propose noted [000]

* [000] Noted

[R2-2106960](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2106960.zip) LS on Rel-16 updated RAN4 UE features lists for LTE and NR (R4-2108333; contact: CMCC) RAN4 LS in Rel-16 To:RAN2 Cc:RAN1

Already taken into account, propose noted [000]

* [000] Noted
* [AT115-e][028][NR16] UE capabilities I (Huawei)

Scope: Determine agreeable parts and agree CRs, Treat R2-2108480, R2-2107342, R2-2108641, R2-2108468, R2-2108585, R2-2108586, R2-2108651, R2-2106952, R2-2108618, R2-2108619, R2-2108735, R2-2108736

Intended outcome: Report, Agreed CRs.

Deadline: Schedule 1

[R2-2109163](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109163.zip) Summary of [AT115-e][028][NR16] UE capabilities I Huawei, HiSilicon

* [028] Noted, agreements reflected below

**Misc Corrections**

[R2-2108480](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108480.zip) Miscellaneous corrections to UE capability descriptions Lenovo, Motorola Mobility CR Rel-16 38.306 16.5.0 0626 - F NR\_unlic-Core, TEI16

* [028] revised

[R2-2109178](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109178.zip) Miscellaneous corrections to UE capability descriptions Lenovo, Motorola Mobility CR Rel-16 38.306 16.5.0 0626 1 F NR\_unlic-Core, TEI16

* [028] Agreed

DAPS

[R2-2107342](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107342.zip) Correction on the capability field DiffSCS-DAPS Huawei, HiSilicon discussion Rel-16 NR\_Mob\_enh-Core

* [028] noted, topic is postponed

[R2-2108641](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108641.zip) Correction on the capability field DiffSCS-DAPS Huawei, HiSilicon CR Rel-16 38.306 16.5.0 0636 - F NR\_Mob\_enh-Core

* [028] postponed

eMIMO

[R2-2108468](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108468.zip) Correction to ul-FullPwrMode capability Sequans Communications CR Rel-16 38.306 16.5.0 0625 - F NR\_eMIMO-Core

* [028] Not pursued, instead change the reference and capture that in R2-2108480

IIOT

[R2-2108585](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108585.zip) Correction on PDCCH Blind Detection in CA Huawei, HiSilicon CR Rel-16 38.331 16.5.0 2781 - F NR\_IIOT-Core

[R2-2108586](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108586.zip) Correction on PDCCH Blind Detection in CA Huawei, HiSilicon CR Rel-16 38.306 16.5.0 0634 - F NR\_IIOT-Core

* [028] Both Postponed
* [028] Send LS to RAN1 to ask questions for PDCCH Blind Detection in CA

[R2-2109168](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109168.zip) LS on PDCCH Blind Detection in CA RAN2 LS out

* [028] LS out is approved

UL Skipping

[R2-2108651](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108651.zip) FR1FR2 differentiation for enhanced UL grant skipping capabilities Qualcomm Incorporated, Nokia, Nokia Shanghai Bell discussion Rel-16 TEI16

W2 Thu unplanned On-line

- QC thikn there is consensus that if it was agreeable then A is selected.

- Huawei indicate that support has grown and it is now marked as postponed.

- Chair: ok we may attempt to agree in a short post email discussion whether to agree a CR for Option A or not (can also decide to finally postpone), but should conclude the discussion [028] first.

- Huawei think we should decide to agree first in option A.

- [028] Chair: I am a little worried that interested people were not present during the on-line session. I would like email thread [028] to confirm whether we attempt to agree R2-2108651 CR or a revision at this meeting or not. If not then we just postpone to next meeting.

* [028] The Option A in R2-2108651 is pursued, a short post email discussion to finalize the CR.
* [Post115-e][064][NR16] FR1FR2 differentiation for enhanced UL grant skipping capabilities (Qualcomm)

Scope: CR based on option A in R2-2108651.

Intended outcome: Agreed CR

Deadline: Short (for RP)

UL TX Switching

[R2-2106952](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2106952.zip) LS on UL MIMO coherence for Tx switching between two carriers (R4-2107765; contact: China Telecom) RAN4 LS in Rel-16 NR\_RF\_FR1-Core To:RAN2, RAN1

* [028] noted

[R2-2108618](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108618.zip) Adding UE capability of UL MIMO coherence for UL Tx switching Huawei, HiSilicon, China Telecom, Apple CR Rel-16 38.306 16.5.0 0635 - F NR\_RF\_FR1-Core

[R2-2108619](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108619.zip) Adding UE capability of UL MIMO coherence for UL Tx switching Huawei, HiSilicon, China Telecom, Apple CR Rel-16 38.331 16.5.0 2786 - F NR\_RF\_FR1-Core

[R2-2108735](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108735.zip) Introducing UL MIMO coherence capability for Tx switching ZTE Corporation, Sanechips CR Rel-16 38.306 16.5.0 0638 - F NR\_RF\_FR1-Core

[R2-2108736](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108736.zip) Introducing UL MIMO coherence capability for Tx switching ZTE Corporation, Sanechips CR Rel-16 38.331 16.5.0 2796 - F NR\_RF\_FR1-Core

* [028] 4 CRs above are Postponed

Extended band n77

Treat on-line first

* [AT115-e][029][NR16] n77 (Nokia)

Scope: Await on-line. Take on-line outcome into account. Determine agreeable parts and agree CRs, Treat R2-2107935 – 7947, R2-2108287, R2-2108756, R2-2108332

Intended outcome: Report (identify acceptable solutions at least for CB), Agreed CRs (in the end)

Deadline: Await on-line, Schedule 1 (CB on-line for decision)

[R2-2107935](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107935.zip) Inter-operability of band n77 extension in US Nokia, Nokia Shanghai Bell discussion Rel-16 NR\_RF\_FR1-Core

- Nokia think all papers propose to add signalling, which was an issue in the initial approach.

- TMO US think there need to be differnentiation legacy new, and a solution is needed now regardless signalling or not.

- Huawei think if we use new band indicator and then we need no new signalling. Nokia think that if we go this way, all impact is in R4. Intel think that introduction of a new band has not been considered in R4 and we should follow that. Apple agrees.

- Apple think signalling is indeed needed.

- QC think this is urgent, and may not be able to agree on a “clean” solution, e.g. solutions using MPR signalling is not clear but require no ASN.1 change. Apple also prefer MPR.

- AT&T support per UE capability.

- Ericsson think that forgein UE (non US) will camp on the DoD band but they cannot connect as they cannot indicate capability, so a new band would be preferable. Apple think UEs shall comply to regulation.

- Oppo doesn’t understand why R4 didn’t introduce a new band.

* Will have signalling for this (new or reused)

W2 Tuesday On-Line CB

DISCUSSION

- A new cap signalling + new NS value

- B new frequency band replace n77 in the US including the DoD part.

- Huawei has preference for B. Huawei think that A doesn't cover all cases.

- TMO could accept any of these. Think there are CRs in R4 that resolves this. Just want a solution by RP. For A it need to be resolved what the new bit means and whether it refers to R4 TS.

- Apple don’t like the B approach, but agrees that with A there is also some R4 impact. Apple thikn that as soon as there is a change we cannot add new bands. Prefer A. QC agrees with Apple. Are concerned about the increased no of bands, think A resolves all the issues. AT&T agrees with Apple and QC, think this situation may occur again.

- Oppo think that for NS value there is questions on access in Idle, not celar whether legacy UEs need to be prevented access. If not, then A is the cleanset solution.

- Nokia think R4 doesn’t support new bands. Nokia think that the issue stems from a mistake in R4 so this isn’t a template for the future, just a specific case. TMO agrees.

- MTK are ok with either, somewhat prefer B.

- QC think NS value is specified by R4.

- Chair think we can have the two options open:

- TMO think R2 need to inform R4 that barring is required.

- KDDI think we have similar discussion in the past and then we introduced new band. Will we have the same discussion in the future? Nokia think it is difficult to know, can raise this. Apple think we can raise this even in the LS.

- Ericsson think the UE cap size is not relevant, the network will just request UE cap for one of the bands. Apple don’t agree with this. Nokia as well.

- TMO think we need to indicate differentiation legacy / new UEs.

- Intel wonder for the new NS value, what is the proponents understanding why we need it. Nokia think it is to differentiate legacy and new UEs. Intel wonder if this is needed if RF requirements are the same.

- QC think RF requirements are the same but we want to avoid acces by legacy UEs.

- Huawei think this solution with NS value need to be checked by R4.

* Shall have techncially endorsed CRs for A
* LS out (to R4 and RP) where R2 indicates both solutions A and B above and indicate that barring is required (with A), explain differentiation legacy / new UEs, attach endorsed CRs (for A). Solutions need to be described to sufficient level. Can include some text on future changes if agreeable.

[R2-2109186](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109186.zip)  [Draft] LS on inter-operability of band n77 extension in US     Nokia   LS out  Rel-16  NR\_RF\_FR1-Core  To:RAN4, RAN

* [029] The LS is approved in R2-2109223

[R2-2108287](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108287.zip) Band n77 issues in the US Ericsson discussion Rel-17 TEI17

[R2-2108756](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108756.zip) Discussion on n77 issue MediaTek Inc. discussion

[R2-2108332](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108332.zip) UE capability signalling for Band n77 Ues DENSO CORPORATION discussion Rel-16 NR\_RF\_FR1\_enh

* [029] 3 tdocs noted

[R2-2107936](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107936.zip) Distinguishing support of extended band n77 for EN-DC, Alt.1 (R16, 36306) Nokia, Nokia Shanghai Bell CR Rel-16 36.306 16.5.0 1820 - C NR\_RF\_FR1-Core

[R2-2107937](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107937.zip) Distinguishing support of extended band n77 for EN-DC, Alt.1 (R16, 36331) Nokia, Nokia Shanghai Bell CR Rel-16 36.331 16.5.0 4702 - C NR\_RF\_FR1-Core

[R2-2107938](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107938.zip) Distinguishing support of extended band n77 for NR, Alt.1 (R16, 38306) Nokia, Nokia Shanghai Bell CR Rel-16 38.306 16.5.0 0615 - C NR\_RF\_FR1-Core

[R2-2107939](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107939.zip) Distinguishing support of extended band n77 for NR, Alt.1 (R16, 38331) Nokia, Nokia Shanghai Bell CR Rel-16 38.331 16.5.0 2747 - C NR\_RF\_FR1-Core

* [029] 4 CRs are revised

[R2-2109182](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109182.zip) Distinguishing support of extended band n77     Nokia, Nokia Shanghai Bell      CR      Rel-16  36.306  16.5.0  1820    1       C       NR\_RF\_FR1-Core  R2-2107936

[R2-2109183](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109183.zip) Distinguishing support of extended band n77     Nokia, Nokia Shanghai Bell      CR      Rel-16  36.331  16.5.0  4702    1       C       NR\_RF\_FR1-Core  R2-2107937

[R2-2109184](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109184.zip) Distinguishing support of extended band n77     Nokia, Nokia Shanghai Bell      CR      Rel-16  38.306  16.5.0  0615    1       C       NR\_RF\_FR1-Core  R2-2107938

[R2-2109185](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109185.zip) Distinguishing support of extended band n77     Nokia, Nokia Shanghai Bell      CR      Rel-16  38.331  16.5.0  2747    1       C       NR\_RF\_FR1-Core  R2-2107939

* [029] The CRs in R2-2109182, R2-2109183, R2-2109184 and R2-2109185 are technically endorsed (for RP).

[R2-2107940](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107940.zip) Distinguishing support of extended band n77 for EN-DC, Alt.2 (R15, 36306) Nokia, Nokia Shanghai Bell CR Rel-15 36.306 15.10.0 1821 - C NR\_RF\_FR1-Core

[R2-2107941](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107941.zip) Distinguishing support of extended band n77 for EN-DC, Alt.2 (R16, 36306) Nokia, Nokia Shanghai Bell CR Rel-16 36.306 16.5.0 1822 - A NR\_RF\_FR1-Core

[R2-2107942](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107942.zip) Distinguishing support of extended band n77 for EN-DC, Alt.2 (R15, 36331) Nokia, Nokia Shanghai Bell CR Rel-15 36.331 15.14.0 4703 - C NR\_RF\_FR1-Core

[R2-2107943](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107943.zip) Distinguishing support of extended band n77 for EN-DC, Alt.2 (R16, 36331) Nokia, Nokia Shanghai Bell CR Rel-16 36.331 16.5.0 4704 - A NR\_RF\_FR1-Core

[R2-2107944](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107944.zip) Distinguishing support of extended band n77 for NR, Alt.2 (R15, 38306) Nokia, Nokia Shanghai Bell CR Rel-15 38.306 15.14.0 0616 - C NR\_RF\_FR1-Core

[R2-2107945](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107945.zip) Distinguishing support of extended band n77 for NR, Alt.2 (R16, 38306) Nokia, Nokia Shanghai Bell CR Rel-16 38.306 16.5.0 0617 - A NR\_RF\_FR1-Core

[R2-2107946](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107946.zip) Distinguishing support of extended band n77 for NR, Alt.2 (R15, 38331) Nokia, Nokia Shanghai Bell CR Rel-15 38.331 15.14.0 2748 - C NR\_RF\_FR1-Core

[R2-2107947](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107947.zip) Distinguishing support of extended band n77 for NR, Alt.2 (R16, 38331) Nokia, Nokia Shanghai Bell CR Rel-16 38.331 16.5.0 2749 - A NR\_RF\_FR1-Core

* [029] 8 CRs above not pursued

#### 6.1.4.4 Idle/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

* [AT115-e][030][NR15NR16] Idle Inactive (Qualcomm)

Scope: Determine agreeable parts and agree CRs, Await on-line for R2-2106959, R2-2107088, R2-2107402, R2-2107403, R2-2108841, Treat R2-2108364, R2-2108365, R2-2108481, R2-2107263, R2-2108362

Intended outcome: Report, Agreed CRs, LS if applicable

Deadline: Schedule 1

[R2-2109109](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109109.zip) [AT115-e][030][NR15NR16] Idle Inactive (Qualcomm) Qualcomm

* [030] noted, agreements reflected below and in subclause 5.4.4

RRM Relaxation

On-line

[R2-2106959](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106959.zip) LS on RRM relaxation in power saving (R4-2108230; contact: CATT, Ericsson) RAN4 LS in Rel-16 NR\_UE\_pow\_sav-Core To:RAN2

* Noted

[R2-2107402](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107402.zip) Discussion on LS from RAN4 on RRM relaxation in power saving vivo, Huawei, HiSilicon, Qualcomm discussion Rel-16 NR\_UE\_pow\_sav-Core

* Noted

DISCUSSION

- MTK agree with vivo and think 1h is long enough. Samsung also support vivo. Huawei think that this just follows how it was done for NB-IoT (24h). ZTE support vivo technically but tend to agree that this is R4 domain. LG support vivo view, think we need to understand reason for R4 LS.

- CATT think this is in R4 domain it is not R2 domain to decide whether 1h is enough.

- Oppo think R4 has discussed this for two meetings, and think R2 need to follow R4.

- Apple support Ericsson/CATT,

- Xiaomi think R2 may need to change.

- Nokia think the LS is straightforward.

- Chair proposes that R2 follow the request from R4.

- vivo cannot accept this. Ericsson think that vivo should discuss 1h or not this should be changed in R4.

* R2 to follow the request from R4
* Progress the CRs offline, and reply LS if agreeable.

[030]

* [030] Send an LS to RAN4 with the following points:

RAN2 will follow the request from RAN4 for the change to 38.304 on RRM relaxation

Ask RAN4 whether this change (from 1 hour to referring to clause 4.2.2.10.2 in 38.133) should also be made when low mobility and non-at-cell-edge criterion is fulfilled and that otherwise there might be inconsistency in the UE behavior.

* Have a short post-meeting email discussion (led by Ericsson or CATT) to draft the LS.
* [Post115-e][030][NR16] Reply LS on RRM relaxation in power saving (CATT, Ericsson)

Scope: Reply LS acc to agreements and discussion, see [AT115-e][030]

Intended outcome: Approved LS out

Deadline: Short (not for RP)

[R2-2108236](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108236.zip) Addressing inconsistency for RRM measurement rules Ericsson CR Rel-16 38.304 16.5.0 0214 - F NR\_UE\_pow\_sav-Core

=> Revised in R2-2108841

[R2-2108841](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108841.zip) Addressing inconsistency for RRM measurement rules Ericsson, CATT CR Rel-16 38.304 16.5.0 0214 1 F NR\_UE\_pow\_sav-Core

[R2-2107088](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107088.zip) Correction on RRM relaxation of higher priority frequencies OPPO CR Rel-16 38.304 16.5.0 0212 - F NR\_UE\_pow\_sav-Core

* [030] CRs are postponed

[R2-2107403](file:///D:/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107403.zip) [Draft] Reply LS to RAN4 on RRM relaxation in power saving vivo LS out Rel-16 NR\_UE\_pow\_sav-Core To:RAN4

* [030] noted

Reselection

[R2-2108362](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108362.zip) Clarification of access restrictions during cell re-selection Qualcomm Incorporated CR Rel-16 38.304 16.5.0 0215 - F NR\_newRAT-Core, NG\_RAN\_PRN-Core

* [030] revised

[R2-2109112](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109112.zip) Clarification of access restrictions during cell re-selection Qualcomm Incorporated CR Rel-16 38.304 16.5.0 0215 1 F NR\_newRAT-Core, NG\_RAN\_PRN-Core

* [030] agreed

## 6.2 NR V2X

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

Documents in this agenda item will be handled in a break out session

Tdoc Limitation: 5 tdocs. See also tdoc limitation for Agenda Item 6

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.).

### 6.2.1 General and Stage-2 corrections

Including incoming LSs, rapporteur inputs, etc.

[R2-2106912](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106912.zip) LS on RRC parameter for PSFCH RB set (R1-2106192; contact: LGE) RAN1 LS in Rel-16 5G\_V2X\_NRSL-Core To:RAN2

### 6.2.2 Control plane corrections

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

[R2-2107012](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107012.zip) Corrections to usage of dynamic SL grants when T310 is running Samsung Electronics Co., Ltd CR Rel-16 38.331 16.5.0 2710 - F 5G\_V2X\_NRSL-Core

[R2-2107166](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107166.zip) Miscelleneous CR on 38.331 Huawei, HiSilicon CR Rel-16 38.331 16.5.0 2715 - F 5G\_V2X\_NRSL-Core

[R2-2107167](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107167.zip) Miscelleneous CR on 36.331 Huawei, HiSilicon CR Rel-16 36.331 16.5.0 4690 - F 5G\_V2X\_NRSL-Core

[R2-2107437](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107437.zip) Correction on TS 38.331 from the latest RAN1 decisions ZTE Corporation, Sanechips CR Rel-16 38.331 16.5.0 2726 - F 5G\_V2X\_NRSL-Core

[R2-2108178](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108178.zip) Corrections on RRC parameter PSFCH RB set CATT CR Rel-16 38.331 16.5.0 2755 - F 5G\_V2X\_NRSL-Core

[R2-2108218](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108218.zip) Discussion on SL PDCP out-of-order delivery configuration vivo discussion

[R2-2108219](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108219.zip) CR on SL-SRB1 integrity check failure vivo, Ericsson CR Rel-16 38.331 16.5.0 2759 - F 5G\_V2X\_NRSL-Core

[R2-2108741](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108741.zip) Correction on SL PDCP out-of-order delivery configuration vivo CR Rel-16 38.331 16.5.0 2797 - F 5G\_V2X\_NRSL-Core

### 6.2.3 User plane corrections

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

[R2-2107168](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107168.zip) Corrections on the dynamic sidelink grants Huawei, HiSilicon CR Rel-16 38.321 16.5.0 1123 - F 5G\_V2X\_NRSL-Core

[R2-2107185](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107185.zip) Correction on UL-SL prioritization OPPO, Apple CR Rel-16 38.321 16.5.0 1124 - F 5G\_V2X\_NRSL-Core

[R2-2107186](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107186.zip) Correction on UL-SL prioritization OPPO, Apple CR Rel-16 36.321 16.5.0 1526 - F 5G\_V2X\_NRSL-Core

[R2-2107187](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107187.zip) Correct on priority of MAC PDU for SL-SCH OPPO CR Rel-16 38.321 16.5.0 1125 - F 5G\_V2X\_NRSL-Core

[R2-2107188](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107188.zip) Correction on random selection OPPO CR Rel-16 38.321 16.5.0 1126 - F 5G\_V2X\_NRSL-Core

[R2-2107189](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107189.zip) Left issue on maxTransNum OPPO discussion Rel-16 5G\_V2X\_NRSL-Core

[R2-2107302](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107302.zip) Correction on condition of setting the resource reservation interval for mode 2 Sharp, ZTE Corporation, Sanechips, OPPO CR Rel-16 38.321 16.5.0 1127 - F 5G\_V2X\_NRSL-Core

[R2-2107436](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107436.zip) Correction on HARQ reporting on Uu ZTE Corporation, Sanechips CR Rel-16 38.321 16.5.0 1128 - F 5G\_V2X\_NRSL-Core

R2-2108161 Review Report on MAC CRs LG Electronics Inc. discussion Rel-16 5G\_V2X\_NRSL-Core Late

[R2-2108177](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108177.zip) Corrections on MCS selection when UE performing TX resource (re-)selection check CATT CR Rel-16 38.321 16.5.0 1139 - F 5G\_V2X\_NRSL-Core

[R2-2108220](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108220.zip) Correction on SR procedure for SL-CSI reporting vivo, ZTE corporation CR Rel-16 38.321 16.5.0 1140 - F 5G\_V2X\_NRSL-Core

[R2-2108221](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108221.zip) Remaining issues on sl-MaxTransNum configuration and UE behaviour vivo discussion

[R2-2108707](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108707.zip) Corrections for SR configuration for SL ASUSTeK CR Rel-16 38.321 16.5.0 1154 - F 5G\_V2X\_NRSL-Core

## 6.3 NR Positioning Support

(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 in a break out session

Tdoc Limitation: 6 tdocs, See also tdoc limitation for Agenda Item 6

### 6.3.1 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).

[R2-2107331](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107331.zip) Correction to NRPPa PDU transfer for uplink positioning Huawei, HiSilicon CR Rel-16 38.305 16.5.0 0073 1 F NR\_pos-Core R2-2105055

[R2-2107333](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107333.zip) Correciton to NB-IoT positioning Huawei, HiSilicon CR Rel-16 38.305 16.5.0 0076 - F NR\_pos-Core

[R2-2107334](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107334.zip) Correction to 38.305 on NG-RAN positioning operations Huawei, HiSilicon CR Rel-16 38.305 16.5.0 0077 - F NR\_pos-Core

[R2-2107958](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107958.zip) Correction on user-plane positioning support by SUPL Samsung, Qualcomm Incorporated CR Rel-16 38.305 16.5.0 0078 - F NR\_pos-Core

[R2-2108410](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108410.zip) PRS only TP for NR Ericsson CR Rel-16 38.305 16.5.0 0080 - F NR\_pos-Core

### 6.3.2 RRC corrections

Including impact to 36.331, 38.331, and 38.306.

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

[R2-2107960](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107960.zip) Misalignment between RRC and NRPPa in SRS configuration Samsung discussion Rel-16

[R2-2107961](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107961.zip) Relation between pathlossReference and spatialRelationInfo Samsung discussion Rel-16

### 6.3.3 LPP corrections

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

[R2-2107121](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107121.zip) Correction for LPP assistance information ROHDE & SCHWARZ CR Rel-16 37.355 16.5.0 0312 - F NR\_pos-Core

[R2-2107227](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107227.zip) Discussion on the presence tag for Uplink LPP message CATT discussion Rel-16 NR\_pos-Core

[R2-2107228](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107228.zip) Corrections on the conditional presence tag clarification for Uplink LPP message CATT CR Rel-16 37.355 16.5.0 0313 - A NR\_pos-Core

[R2-2107229](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107229.zip) Corrections on the conditional presence tag clarification for Uplink LPP message CATT CR Rel-15 37.355 15.2.0 0314 - F NR\_pos-Core

R2-2107230 Miscellaneous correction on the description of RequestedMeasurements CATT CR Rel-16 37.355 16.5.0 0315 - F NR\_pos-Core Withdrawn

[R2-2107332](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107332.zip) Correction to PRS-only TP Huawei, HiSilicon CR Rel-16 37.355 16.5.0 0305 1 F NR\_pos-Core R2-2105054

[R2-2108363](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108363.zip) Correction to the need code in NR-SelectedDL-PRS-IndexList Qualcomm Incorporated CR Rel-16 37.355 16.5.0 0318 - F NR\_pos-Core

[R2-2108404](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108404.zip) on Need codes and PRS-only TP Ericsson discussion

[R2-2108405](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108405.zip) Correction of Need code for UE signalling of NR-TimeStamp Ericsson CR Rel-16 37.355 16.5.0 0319 - F NR\_pos-Core

[R2-2108406](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108406.zip) Addition of PRS only TP Ericsson CR Rel-16 37.355 16.5.0 0320 - B NR\_pos-Core

R2-2108808 Summary of agenda item 6.3.3 - REL-16 LPP Corrections Nokia, Nokia Shanghai Bell discussion Rel-16 NR\_pos-Core Late

### 6.3.4 MAC corrections

## 6.4 SON/MDT support for NR

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

Documents in this agenda item will be handled in a break out session

Tdoc Limitation: 5 tdocs. See also tdoc limitation for Agenda Item 6

### 6.4.1 General and stage-2 corrections

Including incoming LSs, TS 37.320 corrections

[R2-2106979](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106979.zip) LS Reply on QoS Monitoring for URLLC (S5-211350; contact: Intel) SA5 LS in Rel-16 NR\_SON\_MDT-Core To:RAN3 Cc:SA2, RAN2

[R2-2108299](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108299.zip) On UL delay configuration in LTE Ericsson CR Rel-16 37.320 16.5.0 0110 - F NR\_SON\_MDT-Core

[R2-2108314](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108314.zip) [Draft] Reply LS on MDT Stage 2 and Stage 3 alignment Ericsson LS out Rel-16 NR\_SON\_MDT-Core To:RAN3 Cc:SA5

### 6.4.2 TS 38.314 corrections

[R2-2108304](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108304.zip) On corrections to packet loss rate measurements Ericsson CR Rel-16 38.314 16.3.0 0017 - F NR\_SON\_MDT-Core

### 6.4.3 RRC corrections

[R2-2107586](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107586.zip) CSI-RS reporting for RA in RLF Apple CR Rel-16 38.331 16.5.0 2730 - F NR\_SON\_MDT-Core

[R2-2107587](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107587.zip) Correction on clearing VarRA-Report Apple CR Rel-16 38.331 16.5.0 2731 - F NR\_SON\_MDT-Core

[R2-2107819](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107819.zip) Corrections on RLF Report Storage in 36.331 CATT, Huawei, HiSilicon CR Rel-16 36.331 16.5.0 4697 - F NR\_SON\_MDT-Core

[R2-2107820](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107820.zip) Corrections on RLF Report Storage in 38.331 CATT, Huawei, HiSilicon CR Rel-16 38.331 16.5.0 2741 - F NR\_SON\_MDT-Core

[R2-2107854](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107854.zip) Clarification on CGI-EUTRALogging Samsung Electronics Co., Ltd CR Rel-16 38.331 16.5.0 2742 - F NR\_SON\_MDT-Core

[R2-2107863](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107863.zip) Correction on logging for outOfCoverage event Samsung, Ericsson CR Rel-16 38.331 16.5.0 2743 - F NR\_SON\_MDT-Core

[R2-2107864](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107864.zip) Correction on inclusion of the set of availability indicators during RRC reconfiguration Samsung Electronics Co., Ltd CR Rel-16 38.331 16.5.0 2744 - F NR\_SON\_MDT-Core

[R2-2108308](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108308.zip) On OutOfCoverage related logging Ericsson CR Rel-16 38.331 16.5.0 2765 - F NR\_SON\_MDT-Core

[R2-2108309](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108309.zip) On PDCP queuing delay value measurement Ericsson CR Rel-16 36.331 16.5.0 4711 - F NR\_SON\_MDT-Core

[R2-2108321](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108321.zip) Correction to RLF reporting QUALCOMM INCORPORATED CR Rel-16 38.331 16.5.0 2766 - F NR\_SON\_MDT-Core

[R2-2108358](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108358.zip) Correction to 38331 on OOC event triggered logged MDT ZTE Corporation, Sanechips CR Rel-16 38.331 16.5.0 2767 - F NR\_SON\_MDT-Core

[R2-2108359](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108359.zip) Consideration on event triggered logged MDT ZTE Corporation, Sanechips discussion Rel-16

[R2-2108420](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108420.zip) Corrections to previousPCellID and timeConnFailure handling Ericsson discussion NR\_SON\_MDT-Core

[R2-2108561](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108561.zip) Discussion on uplink delay value reporting Huawei, HiSilicon discussion Rel-16 NR\_SON\_MDT-Core

[R2-2108562](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108562.zip) Draft Reply LS on QoS Monitoring for URLLC Huawei LS out Rel-16 NR\_SON\_MDT-Core To:RAN3, SA5 Cc:SA2

[R2-2108563](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108563.zip) Discussion on the user consent for trace reporting Huawei, HiSilicon discussion Rel-16 NR\_SON\_MDT-Core

# 7 Rel-16 EUTRA Work Items

Essential corrections

## 7.1 EUTRA Rel-16 General

No documents should be submitted to 7.1. Please submit to.7.1.x

Purely editorial corrections should be taken up with the specification editor before submitting to avoid CR duplication. If this is not done, the contribution may not be treated.

### 7.1.1 Cross WI RRC corrections

Including RRC corrections that impact multiple WIs and require discussion in the common session.

[R2-2107774](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107774.zip) Correction on early security reactivation upon reception of RRCConnectionReject NEC CR Rel-16 36.331 16.5.0 4696 - F TEI16, LTE\_eMTC5-Core

### 7.1.2 Feature Lists and UE capabilities

Corrections to UE capabilities should be taken up with the 36.331 and 36.306 specification editors before submitting to avoid CR duplication. If this is not done, the contribution may not be treated.

## 7.2 Additional MTC enhancements for LTE

(LTE\_eMTC5-Core; LTE\_eMTC5-Core; leading WG: RAN1; REL-16; started: Jun 18; Completed: June 20; WID: RP192875;)

Documents in this agenda item will be handled in a break out session.

Some sub-items in 7.2 and 7.3 may be treated jointly.

### 7.2.1 General and Stage-2 corrections

Including incoming LSs

[R2-2106906](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106906.zip) Reply LS on timing of neighbor cell RSS-based measurements (R1-2104033; contact: Qualcomm) RAN1 LS in Rel-16 LTE\_eMTC5-Core To:RAN4 Cc:RAN2

[R2-2106915](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106915.zip) Reply LS on RSS based RSRQ for LTE-MTC (R1-2106215; contact: Huawei) RAN1 LS in Rel-16 LTE\_eMTC5-Core To:RAN4 Cc:RAN2

### 7.2.2 Connection to 5GC corrections

Connection to 5GC for MTC and NB-IoT is treated jointly under this AI.

R2-2107428 Introduction of an indication of RRC\_INACTIVE support in SIB1 Huawei, HiSilicon CR Rel-17 36.331 16.5.0 4693 - F LTE\_eMTC5-Core Withdrawn

[R2-2107454](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107454.zip) Introduction of an indication of RRC\_INACTIVE support in SIB1 Huawei, HiSilicon CR Rel-16 36.331 16.5.0 4694 - F LTE\_eMTC5-Core

[R2-2107769](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107769.zip) 36304\_Correction on paging resource determination ZTE Corporation, Sanechips, Qualcomm Incorporated CR Rel-16 36.304 16.4.0 0832 - F LTE\_eMTC5-Core

### 7.2.3 Other corrections

Including corrections related to Mobile-terminated early data transmission (MT-EDT), Scheduling multiple DL/UL transport blocks, Quality report in Msg3, MPDCCH performance improvement using CRS, Improvements for non-BL UEs, Stand-alone deployment, Mobility enhancements, coexistence with NR and MTC specific topics. Corrections related to mobile-terminated early data transmission, scheduling multiple DL/UL transport blocks and coexistence with NR are treated jointly for MTC and NB-IoT under this AI.

## 7.3 Additional enhancements for NB-IoT

(NB\_IOTenh3-Core; leading WG: RAN1; REL-16; started: Jun 18; Completed: June 20; WID: RP-200293)

Documents in this agenda item will be handled in a break out session

Some sub-items in 7.2 and 7.3 may be treated jointly.

### 7.3.1 General and Stage-2 Corrections

Including incoming LSs etc

### 7.3.2 UE-group wake-up signal (WUS) Corrections

UE group wake Up signal for MTC and NB-IoT is treated jointly under this Agenda Item.

### 7.3.3 Transmission in preconfigured resources corrections

Transmission in preconfigured resources for MTC and NB-IoT is treated jointly under this Agenda Item.

### 7.3.4 Other NB-IoT Specific corrections

NB-IoT specific topics

## 7.4 LTE Other WIs

(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 corrections and issues that do not fit under any other topic.

Purely editorial corrections should be taken up with the specification editor before submitting to avoid CR duplication. If this is not done, the contribution may not be treated.

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 6.1.X instead.

[R2-2108701](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108701.zip) 36.331 Correction on ReportConfigEUTRA for CHO/CPAC CATT CR Rel-16 36.331 16.5.0 4720 - F LTE\_feMob-Core

## 7.5 LTE Positioning

(NavIC, LTE TEI16 Positioning)

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

[R2-2107959](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107959.zip) Correction on user-plane positioning support by SUPL Samsung, Qualcomm Incorporated CR Rel-16 36.305 16.3.0 0105 - F LCS\_LTE

# 8 Rel-17 NR Work Items

## 8.1 NR Multicast

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

Time budget: 2 TU

Tdoc Limitation: 7 tdocs

Email max expectation: 4-7 threads

### 8.1.1 Organizational, Requirements, Scope and Architecture

Including stage-2 proposals. Incomimg LSes, Rapporteur docs. Running CRs.   
including the outcome of [Post114-e][074][MBS] RRC running CR (Huawei)

CRs

[R2-2108204](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108204.zip) Summary of e-mail discussion “[Post114-e][074][MBS] RRC running CR” and RRC open issues list Huawei, HiSilicon discussion Rel-17 NR\_MBS-Core Late

DISCUSSION

P1

- Ericsson don’t have a strong opinion, but indeed it could help, less additions etc, if we reuse DRB for MRB.

- ZTE think that reconfiguration between MRB to DRB could be “soft” and support to reuse DRB, and have a common concept. LG has some doubts, would be different sessions on the CN PDU session nvs the MB session.

- Xiaomi think that MRB will not support all things of DRB, so it is clearer if MRB can be specifically defined.

- QC see some complexity e.g. in UE capability if common, clear if we keep different.

- Nokia agrees with Xiaomi and QC.

- Samsung also prefer to keep seprate as there will be many differences.

- CATT also prefer separate. Think data loss can be avoiaded also using separate configuration.

- Sony think both options can work, prefer separate

- Chair think that P1 doesn’t preclude service continuity, although specification of this aspect may become more complex.

* MRB configuration and procedures in RRC are separated from DRB configuration and procedures (as in current CR).
* MRB is defined as MBS Radio Bearer, which denotes radio bearers carrying both multicast and broadcast sessions.

[R2-2108205](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108205.zip) 38.331 running CR for NR MBS Huawei, HiSilicon draftCR Rel-17 38.331 16.5.0 NR\_MBS-Core Late

* Endorsed (baseline for further updates), will be updated after this meeting to take agrements into account
* [Post115-e][069][MBS] 38300 Running CR (CMCC)

Scope: Update the Stage-2 running CR. Capture R2 115-e agreements.

Intended outcome: Endorsed CR

Deadline: Short 2 (not for RP)

* [Post115-e][070][MBS] 38331 running CR (Huawei)

Scope: Update the RRC running CR. Capture the applicable R2 115-e agreements. Points that cannot be agreed within this time-frame can be captured in Editor’s notes.

Intended outcome: Endorsed CR

Deadline: Short 2 (not for RP)

* [Post115-e][071][MBS] 38321 running CR (OPPO)

Scope: Create a first MAC running CR. Capture the applicable R2 115-e agreements. Points that cannot be agreed within this time-frame can be captured in Editor’s notes (maybe most points)

Intended outcome: Endorsed CR

Deadline: Short 2 (not for RP)

* [Post115-e][072][MBS] 38304 running CR (CATT)

Scope: Create a first 38304 running CR. Capture the applicable R2 115-e agreements. Points that cannot be agreed within this time-frame can be captured in Editor’s notes.

Intended outcome: Endorsed CR

Deadline: Short 2 (not for RP)

SDAP Running CR (Samsung), Rapporteur should submit a first draft to next meeting.

LS outs

* [Post115-e][065][MBS] LS outs (Xiaomi, Huawei)

Scope: a) LS out to SA3 to check whether the MBS interest information can be reported by the UE before security activation. b) LS out to SA2, SA4 and RAN3 to check with all of them whether an ID (e.g. SAI) of MBS services can be provided in SIB and USD, as LTE SC-PTM, and to check with SA2 and SA4 whether the mapping between frequency and MBS service ID (e.g. SAI) is provided in the upper layer signalling (e.g. USD), as LTE SC-PTM, and consult with SA2 on whether TMGI is sufficient for MBS session identification or some additional parameter is required (such as sessionID in LTE).

Intended outcome: Approved LSes x 2

Deadline: Short (not for RP)

General

[R2-2107547](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107547.zip) NR Multicast and Broadcast Radio Bearer Architecture aspects Qualcomm Inc discussion Rel-17 NR\_MBS-Core R2-2105015

[R2-2108796](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108796.zip) Discussion on MBS support on MRDC Xiaomi Communications discussion Rel-17 NR\_MBS-Core R2-2105726

[R2-2108037](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108037.zip) General aspects for NR MBS CHENGDU TD TECH LTD. discussion Rel-17

[R2-2107335](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107335.zip) Discussion on lossless mobility support for NR MBS ZTE, Sanechips discussion Rel-17 NR\_MBS-Core

### 8.1.2 L2 Centric

#### 8.1.2.1 Multicast Service Continuity

Includes Mobility and PTM PTP switch, e.g. whether to have a PDCP SR with a new trigger, PDCP functionality for PTMPTP switch and for mobility procedures. Can also include related CP enablers and assupmtions, those directly applicable. Activationdeactivation PTMPTP.   
Including the outcome of [Post114-e][072][MBS] Delivery Mode 1 PTM PTP operation (OPPO).

[R2-2107206](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107206.zip) [Post114-e][072][MBS] Delivery Mode 1 PTM PTP operation (OPPO) OPPO discussion Rel-17 NR\_MBS-Core

DISCUSSION

P1

- Ericsson think PTP only can be discussed later. Ericsson think MRB is connected to an MBS session.

- IDT wonder if the MRB is always a split bearer.

P2

- CMCC think there is no need for the FFS. vivo agree with CMCC

- Chair: FFS seems to be for the UL PTP as we don’t know if ROHC Feddback is needed ot whether there will be PDCP SR when configuring RLC UM. QC comment that in DAPs HPO we allow PDCP SR as well.

- Chair: Many companies want to remove the FFS, a cpl of companies want to keep it ..

P4

- Lenovo think activation is also needed. CMCC support.

- Ericsson think this is not needed. Ericsson think that e.g. DRX can be used for power saving, and think that PUCCH feedback is good as the feedback is a good trigger to turn back to PTM ..

- Samsung think deactivation is the same as bearer type change, and think MAC CE can be lost. Don’t support p4.

- Nokia had hoped for investigation of the need. Have not shown power consumption gains. R1 have agreed that feedback can be controlled by DCI and RRC.

- FW think this is not needed. Can use RRC reconfiguration instead.

P7

- vivo has a concern on HFN part, think we need more input from SA3.

- CMCC think SN can be set by the UE as for SL

- IDT think that if it is set to the first packet received then there could be packet loss.

- CATT think that HFN anyway need to be indicated as count value is included in PDCP status report. Lenovo agrees.

- TD tech agree wit this proposal

- Samsung think there is no need for any initial reordering issues, as we can set the SN explicitly.

- QC also think that if this is set by the UE to a smaller value than the first packet received then there is no loss.

- ZTE think HFN is not needed.

- ZTE think that if also HFN is configured then also SN need to be configured.

* In RRC signalling, one MRB can be configured with PTM only or PTP only or both PTM and PTP. Whether PTM, PTM+PTP or PTP-only can be changed from one to other via RRC signaling.
* In RRC signalling, Support DL only UM RLC configuiration for PTM, both DL and UL AM RLC configuiration for PTP, DL only UM RLC configuiration for PTP, FFS both DL and UL UM RLC configuiration for PTP.
* FFS whether PDCP SR can be triggered due to bearer type change in RRC signaling and FFS how to tigger PDCP SR if need.
* Will not support PTM deactivation/activation beyond RRC reconfiguration acc to first agreement above (and whatever R1 decides).
* For PTM PDCP state variables setting while configured, the SN part of COUNT values of these variables are set according to the SN of the first received packet (by the UE) and the HFN indicated by the gNB, if needed.
* Initialize the PTM RLC entity for an MRB configuration, the value of RX\_Next\_Highest and RX\_Next\_Reassembly are set according to the SN of the first received packet containing an SN.
* RLC state variables of PTP RLC reception window can be set to initial value, i.e. 0, due to MRB configuration.

[R2-2107032](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107032.zip) Open Issues on Mobility of Delivery Mode 1 CATT, CBN discussion Rel-17 NR\_MBS-Core

[R2-2107033](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107033.zip) PTM/PTP Switch CATT discussion Rel-17 NR\_MBS-Core

[R2-2107048](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107048.zip) Mobility and Service continuity for NR Multicast MediaTek Inc. discussion Rel-17

[R2-2107119](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107119.zip) PTM PTP switch and reliability MediaTek Inc. discussion Rel-17

[R2-2107204](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107204.zip) Service continuity for MBS due to handover OPPO discussion Rel-17 NR\_MBS-Core

[R2-2107336](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107336.zip) Multicast Service Continuity ZTE, Sanechips discussion Rel-17 NR\_MBS-Core

[R2-2107363](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107363.zip) Discussion on Multicast service continuity during mobility Spreadtrum Communications discussion Rel-17

[R2-2107539](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107539.zip) L2 ARQ by PDCP for PTM Futurewei, Qualcomm Inc., Intel, UIC, Kyocera, NEC, Samsung, Ericsson discussion Rel-17 NR\_MBS-Core

[R2-2107544](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107544.zip) PDCP Functionality during Mobility and PTM-PTP Switch Futurewei discussion Rel-17

[R2-2107576](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107576.zip) PTM and PTP switch with MBS service continuity Apple discussion Rel-17 NR\_MBS-Core

[R2-2107657](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107657.zip) PTP UM RLC configuration Fujitsu discussion Rel-17 NR\_MBS-Core

[R2-2107685](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107685.zip) Dynamic PTM PTP Switch TCL Communication Ltd. Discussion

[R2-2107690](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107690.zip) MBS Reliability Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_MBS-Core R2-2105265

[R2-2107692](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107692.zip) MBS Mobility Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_MBS-Core

[R2-2107693](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107693.zip) Draft LS on MBS mobility Nokia, Nokia Shanghai Bell LS out Rel-17 NR\_MBS-Core To:RAN3

[R2-2107702](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107702.zip) MBS L2 reliability NEC discussion Rel-17 NR\_MBS-Core

[R2-2107703](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107703.zip) Service Continuity for Connected mode UE NEC discussion Rel-17 NR\_MBS-Core

[R2-2107793](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107793.zip) Service Continuity during Inter-cell mobility vivo discussion Rel-17 NR\_MBS-Core

[R2-2107794](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107794.zip) CHO and DAPS for NR MBS vivo discussion Rel-17 NR\_MBS-Core

[R2-2107795](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107795.zip) Discussion on PTP PTM Switch vivo discussion Rel-17 NR\_MBS-Core

[R2-2107919](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107919.zip) Discussion on MRB type change and PTM/PTP switch Lenovo, Motorola Mobility discussion Rel-17

[R2-2107921](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107921.zip) Service Continuity for handover from MBS Supporting Node to MBS non-Supporting Node Lenovo, Motorola Mobility discussion Rel-17

[R2-2107932](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107932.zip) Service Continuity for Multicast Samsung discussion Rel-17 NR\_MBS-Core

[R2-2108000](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108000.zip) Remaining issues of dynamic PTM - PTP switching and mobility for NR MBS Kyocera discussion Rel-17 R2-2105512

[R2-2108032](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108032.zip) Service continuity for delivery mode 1 CHENGDU TD TECH LTD. discussion Rel-17

[R2-2108050](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108050.zip) Need for L2 ARQ for PTM to PTP switch Sony discussion Rel-17 NR\_MBS-Core

[R2-2108080](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108080.zip) Reliability for Multicast and for Multicast Service Continuity Ericsson discussion Rel-17 NR\_MBS-Core R2-2105757

[R2-2108124](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108124.zip) Inter-cell mobility for MBS Huawei, HiSilicon discussion Rel-17 NR\_MBS-Core

=> Revised in R2-2109022

[R2-2109022](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109022.zip) Inter-cell mobility for MBS Huawei, HiSilicon discussion Rel-17 NR\_MBS-Core R2-2108124

[R2-2108485](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108485.zip) Lossless PTM/PTP switching InterDigital discussion Rel-17 NR\_MBS-Core

[R2-2108519](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108519.zip) Discussion on dynamic PTP/PTM switch CMCC discussion Rel-17 NR\_MBS-Core

[R2-2108550](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108550.zip) Discussion on multicast service continuity LG Electronics Inc. discussion Rel-17 NR\_MBS-Core

[R2-2108676](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108676.zip) Multicast service continuity in mobility and PTM/PTP switching Intel Corporation discussion Rel-17 NR\_MBS-Core

[R2-2108708](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108708.zip) UE stay in RRC\_CONNECTED when no MBS data ongoing ASUSTeK discussion Rel-17 NR\_MBS-Core R2-2105373

[R2-2108754](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108754.zip) Activation and Deactivation of PTM/PTP leg Convida Wireless discussion Rel-17 R2-2106356

Withdrawn

R2-2107697 Reliability of NR MBS NEC discussion Rel-17 NR\_MBS-Core Withdrawn

#### 8.1.2.2 Scheduling and power saving

Includes Broadcast Scheuling and Multicast Scheduling, Group scheduling, DRX, SPS.. Can also include CP enablers and assumptions, only those directly applicable. Further discussion on, e.g. wether there is a need for PTM deactivation.

[R2-2108846](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108846.zip) [Pre115-e][001][MBS] Summary 8.1.2.2 L2 Centric Scheduling and PowSav (Qualcomm) Qualcomm discussion Rel-17 NR\_MBS-Core

DISCUSSION

P1

- CATT think this is for a rare case and think this should notmally not be used for power consumption reasons.

- TD tech think this makes sense.

- Huawei think R1 has decided that UE shall be able to receive multiple sessions.

- BT think that emergency services may receive several service in the normal case.

- ZTE object to P1, think it is not needed as there are several ways to achieve this.

- ZTE, MTK are objecting to P1

- Chair: OK we don't decide this now

P2

- Ericsson [propose the second part to be FFS

P3

- LG think separation is needed, bec Mcast LCID are used by many UEs, and unicast are dedicated.

- QC think there are no issues with separation.

- Samsung support separation, think the 2nd part is wrong.

- Huawei think separate LCID doesn’t work as PTP and PTM will interwork. HARQ will not combine PTP and PTM PDUs.

- Chair think that PTP retransmission of PTM will of course retransmit same PDU.

- LG think that HARQ process id is different for retransmissions of PTM and DTCH, so MTCH and DTCH can anyway be discriminated, even if LCID is the same.

P5

- Huawei think this is not just a single LCID. QC think there can be different RNTIs and can be the same LCID.

- Huawei think that different QoS flows may be carried by different RBs with differnet LCIDs.

P89

- CATT agree with P8, but think that P9 doesn’t work, 1-1 mapping

- Huawei think that we should wait for R1 decisions.

- QC think P1 is the R1 baseline.

- Chair: we wait for R1.

* Single bearer ID is used for each Multicast RB. FFS whether DRB ID space can be shared with MRB ID.
* FFS whether to share common LCID space for Multicast PTM and Unicast DTCH. FFS How many PTM LCIDs to be reserved if separate space is used.
* Multicast PTP and Unicast DTCH/DRB share common LCID space.
* Broadcast PTM/MTCH uses reserved LCID(s), which is different than Unicast DTCH/DRB LCID space.
* Broadcast MCCH uses reserved LCID .
* Multiplexing/de-multiplexing of different logical channels associated with the same G-CS-RNTI is supported for NR MBS.
* If Data Inactivity timer is configured, data monitoring is applied both for unicast and MBS multicast (i.e. both PTM and PTP data) (but not MBS broadcast)

W2 Tuesday on-line Continue

P12

- Huawei think this is a signalling enhancement can be discussed later.

- Clarified Proposal 12: Per network configuration, multiple G-RNTI can be associated with one Multicast DRX state-machine.

- Chair: Postpone

P13

- TD tech agres with this

P15

- Ericsson wonder about WUS?

P16

- Lenovo wonder if this means that UE will receive unicast as well? QC think this is anyway received in the Mcast search space so it is for PTM retransmissions.

- LG agrees question above, and think there is some ambiguity on PTM transmissions CRNTI or GRNTI.

- Nokia agrees to this proposals.

- Ericsson think this cannot be agreed, and thikn that PTM retransmissions is only possible is we also have a PTP leg. Chair think that logically there may be two PTP legs (one for PTM retx one for split bearer). Futurewei share the concerns of Ericsson.

- Chair: Postpone this, urge companies to check RAN1 agreements for PTM retransmissions.

P17

- Ericsson would prefer to check and postpone this.

- Samsung think there may be other scenarios, and would prefer a common approach that would work for all scenarios, also when no feedback is used, e.g. start timer when PDCCH is received.

- Nokai CATT LG prefer Option1

- Chair: P17 is postponed, for furher checking.

P18

- Ericsson prefer to postpone

- Nokia think this is very R1 related. Oppo like to wait for R1 LS.

P19

- TD tech think the second part can be deleted.

- Huawei agree with the first part.

- CMCC support.

- Chair: Whether Multiple NR Broadcast services can share common DRX pattern can be further discussed.

P21

- LG doesn’t support this. Think it is too early to discuss R17 Power saving features. CATT agrees.

- Oppo wonder fir there is TS impact. QC think there is no TS impact.

- Samsung think this brings alignment between PTP and unicast, otherwise we ned different beh.

- ZTE think this is transparent and no agreement is needed. Huawei and Ericsson agrees with ZTE.

- Chair: if there is no TS impact it is also not urgent. Can allow checking. Postpone.

* For multicast PTM transmission, Multicast DRX pattern is configured on a per G-RNTI basis (i.e. independent of legacy UE-specific DRX for unicast transmission).
* Legacy UE-specific DRX pattern for unicast is reused for PTP transmission of NR MBS, which means the UE specific DRX pattern are for both unicast services and the MBS PTP bearer of UE
* Multicast long DRX support is baseline for PTM. FFS whether to support optional short DRX or not.
* The Multicast Long DRX operation has to support the following parameters which are similar to the UE-specific DRX for unicast, where the last two parameters are needed if the HARQ- feedback is enabled:

- drx-onDurationTimerPTM

- drx-InactivityTimerPTM

- drx-LongCycleStartOffsetPTM

- drx-SlotOffsetPTM

- drx-HARQ-RTT-TimerDLPTM

- drx-RetransmissionTimerDLPTM

* For NR Broadcast, the DRX pattern is configured per G-RNTI.
* For NR Broadcast, DRX configuration includes: drx-onDurationTimerPTM, drx-SlotOffsetPTM, drx-InactivityTimerPTM, drx-CycleStartOffsetPTM.

[R2-2107034](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107034.zip) Discussion on Scheduling and Power Saving of MBS CATT discussion Rel-17 NR\_MBS-Core

[R2-2107049](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107049.zip) DRX scheme for NR MBS MediaTek Inc. discussion Rel-17

[R2-2107205](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107205.zip) Discussion on group-based scheduling for MBS OPPO discussion Rel-17 NR\_MBS-Core

[R2-2107233](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107233.zip) MBS Power Saving and Scheduling Aspects Samsung discussion

[R2-2107337](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107337.zip) Group scheduling and power saving for NR MBS ZTE, Sanechips discussion Rel-17 NR\_MBS-Core

[R2-2107438](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107438.zip) Consideration on dynamic PTM and PTP switching for NR MBS Shanghai Jiao Tong University discussion

[R2-2107439](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107439.zip) Deactivation and reactivation of MBS reception Shanghai Jiao Tong University discussion

[R2-2107446](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107446.zip) MBS group scheduling and power saving Intel Corporation discussion Rel-17 NR\_MBS-Core

[R2-2107467](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107467.zip) Determination of HARQ retransmission for PTM FGI, Asia Pacific Telecom discussion

[R2-2107545](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107545.zip) NR Multicast DRX aspects Qualcomm India Pvt Ltd discussion Rel-17 NR\_MBS-Core

[R2-2107577](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107577.zip) DRX mechanism for MBS PTM reception Apple discussion Rel-17 NR\_MBS-Core

[R2-2107682](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107682.zip) DRX for PTM and PTP TCL Communication Ltd. discussion

[R2-2107694](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107694.zip) DRX for Multicast Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_MBS-Core Late

[R2-2107787](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107787.zip) Notification of the Activation/Deactivation of PTM SHARP Corporation discussion

[R2-2107796](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107796.zip) Further Considerations on Group Scheduling for MBS vivo discussion Rel-17 NR\_MBS-Core

[R2-2107920](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107920.zip) MBS specific DRX operation and Data Inactivity Monitoring Lenovo, Motorola Mobility discussion Rel-17

[R2-2107931](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107931.zip) MBS Group Scheduling Samsung discussion Rel-17 NR\_MBS-Core

[R2-2108002](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108002.zip) Open issues on group scheduling for NR MBS Kyocera discussion Rel-17

[R2-2108033](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108033.zip) Scheduling for NR MBS CHENGDU TD TECH LTD. discussion Rel-17

[R2-2108079](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108079.zip) Aspects on Power Saving Ericsson discussion Rel-17 NR\_MBS-Core

[R2-2108083](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108083.zip) Aspects on Scheduling Ericsson discussion Rel-17 NR\_MBS-Core

[R2-2108123](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108123.zip) Support of dynamic switch Huawei, HiSilicon discussion Rel-17 NR\_MBS-Core

[R2-2108125](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108125.zip) Discussion on group scheduling Huawei, HiSilicon discussion Rel-17 NR\_MBS-Core

[R2-2108479](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108479.zip) Power saving for MBS PTM ETRI discussion

[R2-2108486](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108486.zip) PTM activation and deactivation InterDigital discussion Rel-17 NR\_MBS-Core

[R2-2108520](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108520.zip) Discussion on group scheduling CMCC discussion Rel-17 NR\_MBS-Core

[R2-2108551](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108551.zip) Discussion on group scheduling and power saving LG Electronics Inc. discussion Rel-17 NR\_MBS-Core

[R2-2108798](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108798.zip) Discussion on the group scheduling of MBS Xiaomi Communications discussion Rel-17 NR\_MBS-Core

* [001] 28 tdocs above are Noted

Withdrawn

R2-2107698 Service Continuity for Connected mode UE NEC discussion Rel-17 NR\_MBS-Core Withdrawn

R2-2107699 Simultaneous transmission of multicast/unicast NEC discussion Rel-17 NR\_MBS-Core Withdrawn

#### 8.1.2.3 Other

E.g. Initialization of RLC and PDCP windows.

[R2-2109026](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109026.zip) Summary of [Pre115-e][002] [MBS] 8.1.2.3 L2 Centric Other MediaTek Inc. discussion Rel-17 NR\_MBS-Core

DISCUSSION

P4

- Huawei think this is up to implementation. We don’t need optimizations for this.

- QC think these modes require feedback and not sure. U mode should be the baseline

- FW think these modes cannot be supported for configurations with PTM leg. And if for PTP, how would the dynamic switch work.

- xiaomi think some bevhiaour need to change.

- LG think the mode of operation is up to impl, depend on whether there is a path for UL feedback.

P6

- xiaomi QC Lenovo Nokia LG see no need for SDAP header.

P7

- LG think R1 defines PTM transmission acc to RNTI.

- Chair think this a suitable for email discussion

P8

- HW think TM.

- Xiaomi think we may need segmentation. CATT agrees, size may be large.

- MTK think LTE uses UM mode.

- Ericsson think we don’t know the size of MCCH PDUs.

- Xiaomi think TMGI is large and for LTE >1000 could be included.

- Chair: postpone this.

P9

- FFS the model

* ROHC O/R-mode can be used for MRB, for cases when feedback path is available (UL RLC). R2 assumes the detailed operation is up to implementation and expect no further optimizations to be needed.
* Reflective QoS is not supported for MBS.
* No SDAP header is needed for MBS.
* Add p7 to stage-2 CR discussion

[R2-2107120](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107120.zip) Initialization of RLC and PDCP windows MediaTek Inc. discussion Rel-17

[R2-2107338](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107338.zip) Miscellaneous L2 centric issues on NR MBS ZTE, Sanechips discussion Rel-17 NR\_MBS-Core

[R2-2107548](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107548.zip) NR Multicast Broadcast mobility enhancements with service continuity Qualcomm Inc discussion Rel-17 NR\_MBS-Core R2-2105019

[R2-2107797](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107797.zip) PDCP and RLC Initialization for MBS Reception vivo discussion Rel-17 NR\_MBS-Core

[R2-2107933](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107933.zip) Layer-2 Aspects for MBS Samsung discussion Rel-17 NR\_MBS-Core

[R2-2108040](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108040.zip) CQI audit procedure for delivery mode 2 TD Tech discussion

[R2-2108082](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108082.zip) Initialization of RLC and PDCP window Ericsson discussion Rel-17 NR\_MBS-Core

[R2-2108126](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108126.zip) Initialization of RLC and PDCP windows Huawei, HiSilicon discussion Rel-17 NR\_MBS-Core

[R2-2108487](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108487.zip) On RLC receiver state variables during PTM/PTP switching InterDigital discussion Rel-17 NR\_MBS-Core

[R2-2108521](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108521.zip) Discussion on MBS UP design CMCC discussion Rel-17 NR\_MBS-Core

[R2-2108552](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108552.zip) Discussion on MRB related issues and others LG Electronics Inc. discussion Rel-17 NR\_MBS-Core

[R2-2108654](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108654.zip) Discussion on MCCH CHENGDU TD TECH LTD. discussion Rel-17

[R2-2108797](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108797.zip) Remaining PDCP issues for MBS Xiaomi Communications discussion Rel-17 NR\_MBS-Core R2-2105727

[R2-2108809](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108809.zip) Discussion on definition of PTM transmission considering HARQ for PTM LG Electronics Inc. discussion Rel-17 NR\_MBS-Core

### 8.1.3 L3 Centric

R2-2107696 IDLE /IN\_ACTIVE UE support of MBS NEC discussion Rel-17 NR\_MBS-Core Withdrawn

#### 8.1.3.1 Broadcast Service Continuity

Frequency aspects, Impact to cell selection/reseelction (e.g. frequency prioritization). Enablers and assumptions for Broadcast reception in Connected Mode, interest indication, BWP assuptions/requirements for this particular case.   
Including the ourcome of [Post114-e][073][MBS] Service continuity for Delivery Mode 2 (Xiaomi)

[R2-2108799](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108799.zip) Summary of [Post114-e][073][MBS] Service continuity for Delivery Mode 2 (Xiaomi) Xiaomi Communications discussion Rel-17 NR\_MBS-Core

DISCUSSION

- xiaomi think we need to send LS as progress is low in other groups.

P1P2

- LG wonder whether UE is expected to read MCCH from neighbour cell?

- Nokia wonder if the UE need to read SIB1 from possible targets first.

- Xiaomi explains that SIB1 and MCCH need to be read first. Huawei think that this is not required for UEs that shall prioirtize a frequency, just need to read SIB. LG doesn’t agree, think that MCCH need to be read.

- FW think that MCCH read is a big requirement.

**For IDLE / INACTIVE:**

* The UE is allowed to prioritize the MBS frequency of interest when the cell of the MBS frequency provides MBS SIB carrying the MCCH configuration, as LTE SC-PTM.
* The UE is allowed to prioritize the MBS frequency of interest when the UE is only capable of receiving the MBS service by camping on the MBS frequency, as LTE SC-PTM.

Confirm the rest of easy proposals for this topic by email

* [AT115-e][047][MBS] Service Continuity deliver mode 2 (Xiaomi)

Scope: Ph1; Continue discussion on R2-2108799. Reach agreements as far as possible, can also define FFSes when helpful.

Ph2: LS outs based on agreements and discussion.

Intended outcome: Ph1: Agreements, report, Ph2: two LS outs, a) to SA3, and b) to SA2, SA4, R3

Deadline: Ph1 Wednesday W2 (CB), Ph2 EOM (can be extended if needed for 1 week post approval)

[R2-2109041](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109041.zip) Report of [AT115-e][047][MBS] Service Continuity deliver mode 2 Xiaomi Communications

DISCUSSION

4a/4b

- LG think the proposals has been changed. Think we should ask other groups but we should wait for reply until deciding 4a. CATT can agree but point out that SAI is Service Area ID not service ID. ZTE think we need to ask in any case, and freq is related to SFN transmission. Xiaomi think that frequency is not just for MBSFN, it is also for SC-PTM.

- QC and Xiaomi think we can Workgin assumption.

- Lenovo think that in USD there can be both service ID and Service area id. Think that R2 can make decision.

- Huawei think we need SAI as it is used for SI optimization. Nokia agrees.

8a/8b

- Nokia think that we should remove group. Xiaomi explain that “group” is for signalling optimization. Think we can say one ID for multiple MBS services. ZTE Ericsson OPPO agrees that group is not clear.

- Chair think that in the LS we may need to specify what we want with the ID .. even if we don’t use “group”. Left to LS drafting phase.

P9

- CATT think that application layer doesn’t use this. Last part is wrong. Xiaomi think we can remove the last part. TD tech agrees.

- Ericsson think this is very complex, think neighbour cell info dep on sessions start / stop is not realistic. Nokia agrees and think that ncell list is optional, and network need to work without it. Xiaomi think the purpose is to reduce the interruption during cell reselection.

P13

- ZTE think it is important to have cell level mobility as some cells may not provide this service.

- Xiaomi think a lot of details need to be discussed and it is related to neighbpor info.

- Huawei thikn UE shall camp on the best cell. Nokia ericsson agrees.

P12

- Nokia Lenovo Oppo think the MII should in principle be done as early as possible. Nokia think ti is unlikely that SA3 will agree.

- Nokia think we can indicate subset of info early.

- Xiaomi think that we can ask SA3 what part of the info is sensistive.

For IDLE / INACTIVE:

* The UE may consider cell reselection candidate frequencies at which it cannot receive the MBS service to be of the lowest priority during the MBS session, as LTE SC-PTM.
* Working assumption: The mapping between frequency and MBS service ID (e.g. SAI) is provided in the upper layer signalling (e.g. USD), as LTE SC-PTM. (The detailed information included in the upper layer (e.g. USD) is up to the decision of other WGs)
* Send an LS to SA2 and SA4 to check whether the mapping between frequency and MBS service ID (e.g. SAI) is provided in the upper layer signalling (e.g. USD), as LTE SC-PTM.
* The mapping between frequency and MBS service ID (e.g. SAI) is provided in SIB, as LTE SC-PTM. The detailed mapping is pending for the feedbacks of other WGs.
* The mapping between frequency and MBS service ID (e.g. SAI) is allowed to be sent in cells not broadcasting MBS service, as LTE SC-PTM.
* The mapping between frequency and MBS service ID (e.g. SAI) is provided in a new SIB different from the MBS SIB providing the MCCH configuration, as LTE SC-PTM.
* An ID (e.g. SAI) of MBS services is provided in SIB and USD, as LTE SC-PTM. The details of the ID is pending for the feedbacks of other WGs.
* Send an LS to SA2, SA4 and RAN3 to check whether an ID (e.g. SAI) of MBS services can be provided in SIB and USD, as LTE SC-PTM.
* It is FFS whether the gNB may indicate a list of neighbour cells where ongoing broadcast MBS service provided in the current cells are also provided, as LTE SC-PTM.
* The extra offset to cell (which provides the MBS service) for the cell ranking criterion is not supported in Rel-17.

For CONNECTED:

* The UE reports the following MBS interest information (as LTE SC-PTM):

MBS frequency list

priority between the reception of all listed MBMS frequencies and the reception of any unicast bearer

TMGI list

* If MBS frequencies are allowed to be reported, the MBS frequencies reported by the UE is sorted by decreasing order of interest, as LTE SC-PTM.
* Send an LS to SA3 to check whether the MBS interest information can be reported by the UE before security activation.
* FFS whether the MII is reported via *UEAssistanceInformation* or a new RRC message.

[R2-2107013](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107013.zip) Discussion on MBS interesting indication for delivery mode 2 OPPO discussion Rel-17 NR\_MBS-Core

[R2-2107017](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107017.zip) Discussion on MBS service continuity for delivery mode 2 OPPO discussion Rel-17 NR\_MBS-Core

[R2-2107035](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107035.zip) Open Issues on Service Continuity of Delivery Mode 2 CATT, CBN discussion Rel-17 NR\_MBS-Core

[R2-2107050](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107050.zip) Broadcast Service Continuity MediaTek Inc. discussion Rel-17

[R2-2107234](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107234.zip) On Broadcast Service Continuity Samsung discussion

[R2-2107339](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107339.zip) Broadcast Service Continuity ZTE, Sanechips discussion Rel-17 NR\_MBS-Core

[R2-2107364](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107364.zip) Discussion on issues of delivery mode2 Spreadtrum Communications discussion Rel-17

[R2-2107387](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107387.zip) Discussion on Service Continuity Support for NR MBS TCL Communication Ltd. discussion Rel-17

[R2-2107798](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107798.zip) Discussion on Broadcast Service Continuity vivo discussion Rel-17 NR\_MBS-Core

[R2-2107875](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107875.zip) MBS service continuity LG Electronics Inc. discussion Rel-17

[R2-2107981](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107981.zip) MCCH considerations Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_MBS-Core

[R2-2107999](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107999.zip) Details of control plane aspects for delivery mode 2 in NR MBS Kyocera discussion Rel-17 R2-2105511

[R2-2108034](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108034.zip) Service continuity for delivery mode 2 CHENGDU TD TECH LTD. discussion Rel-17

[R2-2108081](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108081.zip) Open issues in Broadcast Service Continuity Ericsson discussion Rel-17 NR\_MBS-Core

[R2-2108201](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108201.zip) Remaining issues of MBS Interest Indication Huawei, HiSilicon discussion Rel-17 NR\_MBS-Core

[R2-2108522](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108522.zip) Discussion on Broadcast service continuity issues CMCC discussion Rel-17 NR\_MBS-Core

[R2-2108677](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108677.zip) Service continuity for delivery mode 2 Intel Corporation discussion Rel-17 NR\_MBS-Core

#### 8.1.3.2 Notifications

Notification for Multicast activation. Change Notifications MCCH etc for broadcast.

* [AT115-e][048][MBS] Notifications (Samsung)

Scope: Ph1: Treat R2-2108847. Reach agreements as far as possible, can also define FFSes when helpful. Ph2: LS out acc to agreements

Intended outcome: Agreements, report, Approved LS out

Deadline: Ph1: Wednesday W2 (CB if needed), Ph2: EOM (extended if needed)

[R2-2109078](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109078.zip)Report of [AT115-e][048][MBS] Notifications Samsung

DISCUSSION

P4 P5

- ZTE suggest to wait for R3 decision. There is no rush. R3 is already discussing this.

- QC think we can at least make

P7

- vivo think that the network will inform the UE that the Mcast session has been released.

P2

- QC think session start stop modification. QC wonder if this would be about all of these cases, e.g. any modification.

- Samsung indicate that neighbour cell info or configuration modification could be indicated by second bit. Session modification includes session stop.

- QC prefer to have a session stop bit.

- LG think the proposal is not clear. We agreed to have two bits, start and modification, the OI is whether modification can also be used to notify any change.

- TD tech think that if UE knows the MBS type it can be useful to the UE. More bits are needed for this. Neighbor cell related info doesn’t need notification.

- Chair: think we cannot agree now the details of session modification bit or extensions

P10

- Apple think we need to know whether we have barring. Oppo agrees. QC as well

P13

- Huawei think we should not prioritize cell, frequency is ok. Ericsson and Lenovo agrees

* RAN2 waits for RAN1’s final decision on which RNTI/DCI (i.e. Alt1 and/or Alt 2 as identified by RAN1) for MCCH change notification to be adopted.
* Do not specify any mechanism to address the possibility of UE missing an MCCH change notification and it is left to UE implementation.
* Provided RAN3 confirms, paging for multicast activation notification is used in the relevant legacy POs for the UEs with deactivated multicast session(s).
* RAN2 sends an LS to RAN3 and SA2 to indicate its preference for paging for multicast activation notification to be used in the relevant legacy POs for the UEs with non activated multicast session(s). Further, RAN2 requests RAN3 for confirmation and if so, also specifying required network signalling.
* Confirm extending the unicast paging message to include a new paging record list ( *pagingGroupList)* for group activation notification of multicast sessions.
* NAS is expected to inform UE about multicast session release (e.g. to stop monitoring for multicast session activation).
* It is up to network implementation (e.g. paging repetitions) for addressing scenario of potential notification loss for UEs.
* RAN2 not to prioritize addressing of PRACH capacity issue due to group notification.
* It is FFS that short message or WUS based indication for multicast activation notification in corresponding paging message can be used.
* It is FFS to introduce MBS specific UAC.
* It is FFS on the establishment cause and resume cause for MBS.
* It is FFS if there is a need to prioritize a frequency with multicast support for idle/inactive UEs that monitor multicast activation notification.

[048] Ph2

[R2-2109177](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109177.zip) LS on paging for multicast session activation notification RAN2 LS out

* [048] LS out is approved

[R2-2108847](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108847.zip) Summary 8.1.3.2 - L3 Centric Notifications (Samsung) Samsung discussion Rel-17 NR\_MBS-Core

[R2-2107015](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107015.zip) Discussion on MCCH change notification OPPO discussion Rel-17 NR\_MBS-Core

[R2-2107016](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107016.zip) Group notification and unicast paging for MBS activation OPPO discussion Rel-17 NR\_MBS-Core

[R2-2107036](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107036.zip) On Multicast Activation Notification CATT, CBN discussion Rel-17 NR\_MBS-Core

[R2-2107037](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107037.zip) Open Issues on MCCH Change Notification CATT discussion Rel-17

[R2-2107051](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107051.zip) Notification for Multicast activation MediaTek Inc. discussion Rel-17

[R2-2107235](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107235.zip) Considerations on Notifications for Multicast and Broadcast Samsung discussion

[R2-2107340](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107340.zip) Notifications for NR MBS ZTE, Sanechips discussion Rel-17 NR\_MBS-Core

[R2-2107365](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107365.zip) Discussion on multicast activation notification Spreadtrum Communications discussion Rel-17

[R2-2107530](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107530.zip) Further discussion on the MBS group notification in DM2 Futurewei discussion Rel-17 NR\_MBS-Core

[R2-2107578](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107578.zip) Access Control for the MBS Service Reception Apple discussion Rel-17 NR\_MBS-Core

[R2-2107799](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107799.zip) Discussion on MBS Notification and MCCH vivo discussion Rel-17 NR\_MBS-Core

[R2-2107876](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107876.zip) MCCH information acquisition LG Electronics Inc. discussion Rel-17

[R2-2107877](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107877.zip) RRC connection establishmentresume initiated by group paging LG Electronics Inc. discussion Rel-17

[R2-2107922](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107922.zip) Notification for Multicast activation Lenovo, Motorola Mobility discussion Rel-17

[R2-2107982](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107982.zip) MBS session activation and group paging Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_MBS-Core

[R2-2108001](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108001.zip) Group notification for Delivery mode 1 in NR MBS Kyocera discussion Rel-17 R2-2105513

[R2-2108035](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108035.zip) Discussion on notificatons for NR MBS CHENGDU TD TECH LTD. discussion Rel-17

[R2-2108078](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108078.zip) Aspects on notification Ericsson discussion Rel-17 NR\_MBS-Core

[R2-2108202](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108202.zip) Notifications for Multicast and Broadcast Huawei, HiSilicon discussion Rel-17 NR\_MBS-Core

[R2-2108455](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108455.zip) Multicast activation notification and MCCH change notification Intel Corporation discussion Rel-17 NR\_MBS-Core

[R2-2108523](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108523.zip) Discussion MBS notification schemes CMCC discussion Rel-17 NR\_MBS-Core

[R2-2108800](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108800.zip) PRACH congestion due to multicast paging Xiaomi Communications discussion Rel-17 NR\_MBS-Core

* [003][048] 21 tdocs above are Noted

#### 8.1.3.3 Other

MCCH contents and details. General RRC aspects. BWP.

* [AT115-e][049][MBS] L3 Other (Huawei)

Scope: Treat R2-2109035. Attempt to reach agreements only for those points for which it seems possible to agree without on-line discussion (best-effort).

Intended outcome: Agreements, report

Deadline: EOM, no CB

[R2-2109104](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109104.zip) Report of offline: [AT115-e][049][MBS] L3 Other (Huawei) Huawei

* [049] Noted, agreements are reflected below
* [049] Send and LS to SA2 to consult on whether TMGI is sufficient for MBS session identification or some additional parameter is required (such as sessionID in LTE).
* [049] There is no SDAP configuration provided to the UE for neither broadcast nor multicast.
* [049] For broadcast, it is FFS whether sn-FieldLength (for RLC) and pdcp-SN-SizeDL parameters are configurable or predefined in specifications (related UE capabilities should be considered).
* [049] For broadcast, it is FFS whether t-Reassembly (in RLC configuration) and t-Reordering (in PDCP configuration) are needed, e.g. considering whether out of sequence reception can happen as there is no HARQ feedback for broadcast.
* [049] For broadcast, it is FFS whether ROHC, when enabled by the network, has a predefined configuration or ROHC parameters are configurable by the network.
* [049] On-demand MCCH mechanism is not introduced in Rel-17.
* [049] A single MCCH channel with multiple modification/repetition periods is not supported, i.e. there is a single configuration of modification/repetition for MCCH (in Rel-17).

[R2-2109035](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109035.zip) [Pre115-e][004][MBS] Summary 8.1.3.3 L3 Centric Other Huawei, HiSilicon

[R2-2107014](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107014.zip) Discussion on beam sweeping transmission for delivery mode 2 OPPO discussion Rel-17 NR\_MBS-Core

[R2-2107038](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107038.zip) Discussion on MCCH Contents and General RRC Aspects CATT, CBN discussion Rel-17

[R2-2107052](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107052.zip) MCCH Configuration MediaTek Inc. discussion Rel-17

[R2-2107236](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107236.zip) MCCH Contents and RRC Aspects for MBS Samsung discussion

[R2-2107341](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107341.zip) MCCH contents for NR MBS ZTE, Sanechips discussion Rel-17 NR\_MBS-Core

[R2-2107366](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107366.zip) RRC issues of multicast session Spreadtrum Communications discussion Rel-17

[R2-2107529](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107529.zip) Configurations for MRB and scheduling via MCCH in DM2 Futurewei discussion Rel-17 NR\_MBS-Core R2-2105007

[R2-2107531](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107531.zip) Handling MBS during conditional handover Futurewei discussion Rel-17 NR\_MBS-Core R2-2105009

[R2-2107546](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107546.zip) NR MBS control signalling aspects for UEs in different RRC states Qualcomm Inc discussion Rel-17 NR\_MBS-Core R2-2105013

[R2-2107579](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107579.zip) MBS reception in CONNECTED state Apple discussion Rel-17 NR\_MBS-Core

[R2-2107691](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107691.zip) Miscellaneous Aspects of MBS Provisioning Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_MBS-Core R2-2105266

[R2-2108036](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108036.zip) MBS related configuration for delivery mode 2 CHENGDU TD TECH LTD. discussion Rel-17

[R2-2108049](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108049.zip) MBS BWP UE capability and MBS resources Sony discussion Rel-17 NR\_MBS-Core

[R2-2108084](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108084.zip) Other aspects for MBS Ericsson discussion Rel-17 NR\_MBS-Core

[R2-2108203](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108203.zip) MCCH acquisition in RRC\_CONNECTED state Huawei, HiSilicon discussion Rel-17 NR\_MBS-Core

[R2-2108456](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108456.zip) Details for MCCH design Intel Corporation discussion Rel-17 NR\_MBS-Core

* [004][049] 17 tdocs above are Noted

## 8.2 MR DC/CA further enhancements

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

Time budget: 1 TU

Tdoc Limitation: 4 tdocs

Email max expectation: 4 threads

No documents should be submitted to 8.2. Please submit to.8.2.x

### 8.2.1 Organizational, Requirements and Scope

Including LSs and any rapporteur inputs (which do not count against Tdoc limits).

[R2-2106962](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106962.zip) Reply LS on temporary RS for efficient SCell activation in NR CA (R4-2108364; contact: Huawei) RAN4 LS in Rel-17 LTE\_NR\_DC\_enh2 To:RAN1, RAN2

[R2-2108688](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108688.zip) TS 37.340 CR for CPA and inter-SN CPC CATT draftCR Rel-17 37.340 16.6.0 B LTE\_NR\_DC\_enh2-Core

### 8.2.2 Efficient activation / deactivation mechanism for one SCG and SCells

No documents should be submitted to 8.2.2. Please submit to.8.2.2.x

#### 8.2.2.1 Deactivation of SCG

Including outcome of [Post114-e][231][R17 DCCA] SCG activation/deactivation options (Huawei)

Including UE assistance information for SCG deactivation

[R2-2107018](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107018.zip) Discussion on SCG deactivation for RRC\_INACTIVE UE OPPO discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2107422](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107422.zip) Deactivation of SCG Qualcomm Incorporated discussion Rel-17

[R2-2107663](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107663.zip) DC power sharing for deactivated SCG Samsung discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2107669](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107669.zip) Bearer handling for SCG deactivation Samsung discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2107983](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107983.zip) Deactivation of SCG Nokia, Nokia Shanghai Bell discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2108091](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108091.zip) Deactivation of SCG LG Electronics discussion Rel-17

[R2-2108165](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108165.zip) Details of SCG deactivation China Telecommunications discussion Rel-17

[R2-2108330](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108330.zip) Comparison of SCG deactivation solutions Convida Wireless other Rel-17 LTE\_NR\_DC\_enh2-Core R2-2106039

[R2-2108388](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108388.zip) Efficient SCG (de)activation Ericsson discussion LTE\_NR\_DC\_enh2-Core

R2-2108444 [Post114-e][231][R17 DCCA] SCG activation/deactivation options (Huawei) Huawei, HiSilicon discussion Rel-17 LTE\_NR\_DC\_enh2-Core Late

[R2-2108445](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108445.zip) Remaining issues on UE-requested SCG deactivation Huawei, HiSilicon discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2108488](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108488.zip) Deactivation of SCG InterDigital discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2108530](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108530.zip) Discussions on deactivation of SCG CMCC discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2108678](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108678.zip) UE Assistance Information for SCG deactivation SHARP Corporation discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2108691](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108691.zip) Discussion on Deactivation of SCG CATT discussion Rel-17 LTE\_NR\_DC\_enh2-Core

R2-2108813 Discussion on deactivation of SCG NTT DOCOMO INC. discussion Rel-17 LTE\_NR\_DC\_enh2-Core Late

#### 8.2.2.2 UE measurements and reporting in deactivated SCG

Including discussion on how/whether RRM/RLM/BFD measurements are done for deactivated SCG

Including discussion on TAT timer handling for deactivated SCG

Including discussion on RRM/CSI/BM measurement reporting for deactivated SCG

[R2-2107020](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107020.zip) UE measurements and reporting in SCG deactivation OPPO discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2107021](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107021.zip) Discussion on TRS activation for fast SCell activation OPPO discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2107328](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107328.zip) UE behavior in deactivated SCG NTT DOCOMO INC. discussion Rel-17

[R2-2107423](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107423.zip) UE measurements and reporting in deactivated SCG Qualcomm Incorporated discussion Rel-17 R2-2103893

[R2-2107603](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107603.zip) TA Maintenance and other RRM UE actions in SCG deactivated state Apple discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2107746](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107746.zip) Discussion on UE behaivour when SCG is deactivated ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2107753](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107753.zip) Mobility for deactivated SCG NTT DOCOMO INC. discussion Rel-17 R2-2105064

[R2-2107923](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107923.zip) UE behavior when SCG is deactivated Lenovo, Motorola Mobility discussion Rel-17

[R2-2108132](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108132.zip) Further considerations on SCG deactivation NEC discussion Rel-17 LTE\_NR\_DC\_enh2-Core R2-2105791

[R2-2108166](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108166.zip) Discussion on UE behavior in deactivated SCG China Telecommunications discussion Rel-17

[R2-2108389](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108389.zip) UE measurements and reporting in deactivated SCG Ericsson discussion LTE\_NR\_DC\_enh2-Core

[R2-2108446](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108446.zip) UE behaviour while the SCG is deactivated Huawei, HiSilicon discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2108489](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108489.zip) Measurements and maintenance of UL synch with a deactivated SCG InterDigital discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2108649](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108649.zip) Discussion for UE behaviour in deactivated SCG SHARP Corporation discussion Rel-17 LTE\_NR\_DC\_enh2-Core R2-2106287

[R2-2108669](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108669.zip) UE behavior when SCG is deactivated vivo discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2108692](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108692.zip) UE Behavior in Deactivated SCG CATT discussion Rel-17 LTE\_NR\_DC\_enh2-Core R2-2105059

[R2-2108721](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108721.zip) UE Measurements in SCG Deactivation LG Electronics discussion Rel-17 LTE\_NR\_DC\_enh2-Core R2-2106107

[R2-2108733](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108733.zip) UE behavior during SCG deactivation MediaTek Inc. discussion Rel-17 LTE\_NR\_DC\_enh2-Core R2-2106336

#### 8.2.2.3 Activation of deactivated SCG

Including outcome of [Post114-e][231][R17 DCCA] SCG activation/deactivation options (Huawei)

Including discussion on SCG activation details: For network-initiated activation, when is random access used ? Is usage of random access UE or network decision?

How can UE request SCG activation?

[R2-2107019](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107019.zip) Open issues for activation of deactivated SCG OPPO discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2107353](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107353.zip) Discussion on UE behaviour when SCG is deactivated Spreadtrum Communications discussion Rel-17

[R2-2107420](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107420.zip) Activation of deactivated SCG Qualcomm Incorporated discussion Rel-17

[R2-2107532](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107532.zip) Discussion on random access and UE initiation for SCG fast activation Futurewei discussion Rel-17 LTE\_NR\_DC\_enh2-Core R2-2105010

[R2-2107602](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107602.zip) Remaining aspects related to RACH-less SCG activation Apple discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2107604](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107604.zip) UE initiation of SCG (de)activation request Apple discussion Rel-17 LTE\_NR\_DC\_enh2-Core R2-2105140

[R2-2107668](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107668.zip) PHR issues for SCG activation Samsung discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2107747](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107747.zip) Consideration on UE triggered SCG activation ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_DC\_enh2-Core

R2-2107865 UL data handling in deactivated SCG DENSO CORPORATION discussion Rel-17 LTE\_NR\_DC\_enh2-Core Withdrawn

[R2-2107874](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107874.zip) UL data handling in deactivated SCG DENSO CORPORATION discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2107924](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107924.zip) Discussion on SCG activation Lenovo, Motorola Mobility discussion Rel-17

[R2-2108133](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108133.zip) Further discussions on SCG activation NEC discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2108134](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108134.zip) UE request for SCG activation NEC discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2108447](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108447.zip) Lower layer signalling for SCG (de)activation Huawei, HiSilicon discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2108490](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108490.zip) Activation of SCG InterDigital discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2108531](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108531.zip) Discussions on activation of deactivated SCG CMCC discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2108668](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108668.zip) Discussion on activation of a deactivated SCG vivo discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2108693](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108693.zip) Considerations on Activation of Deactivated SCG CATT discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2108722](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108722.zip) Activation of SCG LG Electronics discussion Rel-17 LTE\_NR\_DC\_enh2-Core R2-2106108

[R2-2108728](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108728.zip) Discussion on SCG activation SHARP Corporation discussion Rel-17 LTE\_NR\_DC\_enh2-Core R2-2106312

#### 8.2.2.4 Other aspects of SCG activation/deactivation

This agenda item will not be treated in this meeting .

[R2-2107605](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107605.zip) SCG bearer handling for the SCG deactivation feature Apple discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2108532](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108532.zip) Considerations for fast MCG link recovery with deactivated SCG CMCC discussion Rel-17 LTE\_NR\_DC\_enh2-Core

### 8.2.3 Conditional PSCell change / addition

No documents should be submitted to 8.2.3. Please submit to.8.2.3.x

#### 8.2.3.1 CPAC procedures from network perspective

Including discussion on CPAC configuration and execution details and Stage-2 signalling flows.

Including discussion on the design of inter-node messages (to answer RAN3 LS questions).

Including discussion on whether, after T-SN provided the conditional configurations to the MN, the SN measurement configuration can be updated \*before\* the MN provides theses conditional configurations to the UE.

Including discussion whether the execution conditions can be updated after T-SN provided the conditional configurations to the MN.

[R2-2107111](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107111.zip) Considerations on SN-initiated CPC procedure KDDI Corporation discussion

[R2-2107226](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107226.zip) Discussion on SN initiated conditional PSCell change NTT DOCOMO INC. discussion

[R2-2107404](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107404.zip) Discussion on CPAC procedures from NW perspective vivo discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2107421](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107421.zip) CPAC procedures from network perspective Qualcomm Incorporated discussion Rel-17

[R2-2107460](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107460.zip) Discussion on SN initiated inter-SN CPC China Telecommunication discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2107525](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107525.zip) On SN-initiated CPC and the working assumptions Nokia, Nokia Shanghai Bell discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2107533](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107533.zip) Remaining issues with SN initiated CPC Futurewei discussion Rel-17 LTE\_NR\_DC\_enh2-Core R2-2105012

[R2-2107925](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107925.zip) Issues related to SN initiated inter-SN CPC Lenovo, Motorola Mobility discussion Rel-17

[R2-2108112](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108112.zip) Network procedures and signalling for CPAC Ericsson discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2108135](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108135.zip) Signaling details of SN-initiated CPC NEC discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2108162](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108162.zip) Discussion on SN initiated inter-SN CPC ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2108163](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108163.zip) Further consideration on CPAC procedure ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2108448](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108448.zip) Source SN configuration update during CPC configuration Huawei, HiSilicon discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2108449](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108449.zip) Reply LS on inter-node message design Huawei, HiSilicon LS out Rel-17 LTE\_NR\_DC\_enh2-Core To:RAN3

[R2-2108694](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108694.zip) Discussion on CPAC procedures from network perspective CATT discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2108775](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108775.zip) Further consideration on CPAC stage 2 flow, and remaining issues Samsung Electronics discussion LTE\_NR\_DC\_enh2-Core

#### 8.2.3.2 CPAC procedures from UE perspective

Including discussion on UE measurements for CPAC purposes.

Including discussion on signalling towards UE.

Including outcome of [Post114-e][233][R17 DCCA] Uu Message design for CPAC (CATT)

[R2-2107405](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107405.zip) Discussion on CPAC procedures from UE perspective vivo discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2107594](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107594.zip) Discussion on CPAC open issues Apple discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2108113](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108113.zip) UE procedures and signalling for CPAC Ericsson discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2108689](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108689.zip) TS 38.331 CR for CPA and inter-SN CPC CATT draftCR Rel-17 38.331 16.5.0 B LTE\_NR\_DC\_enh2-Core Late

[R2-2108690](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108690.zip) TS 36.331 CR for CPA and inter-SN CPC CATT draftCR Rel-17 36.331 16.5.0 B LTE\_NR\_DC\_enh2-Core Late

[R2-2108695](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108695.zip) Summary of [Post114-e][233][eDCCA] Uu Message design for CPAC(CATT) CATT discussion Rel-17 LTE\_NR\_DC\_enh2-Core Late

[R2-2108723](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108723.zip) Enhancements for CPAC LG Electronics discussion Rel-17 LTE\_NR\_DC\_enh2-Core R2-2103571

#### 8.2.3.3 Other CPAC aspects

This agenda item will be deprioritized in this meeting.

Including discussion on CPAC failure handling.

Including discussion on CPAC co-existence with CHO.

[R2-2107524](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107524.zip) On CPAC Procedures and Further Functionalities Nokia, Nokia Shanghai Bell discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2107871](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107871.zip) Failure handling of Conditional PSCell Addition DENSO CORPORATION discussion Rel-17 LTE\_NR\_DC\_enh2-Core R2-2105444

[R2-2107926](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107926.zip) Miscellaneous issues on CPAC Lenovo, Motorola Mobility discussion Rel-17

[R2-2108491](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108491.zip) Coexistence of CHO and CPC InterDigital, Nokia, Nokia Shanghai Bell,ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2108533](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108533.zip) Combination of CPAC and CHO CMCC discussion Rel-17 LTE\_NR\_DC\_enh2-Core

### 8.2.4 Temporary RS for SCell activation

This agenda item will be deprioritized in this meeting unless urgent LS from RAN1 or RAN4 is received.

[R2-2107984](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107984.zip) MAC CE for scell activation and temporary RS Nokia, Nokia Shanghai Bell discussion Rel-17 LTE\_NR\_DC\_enh2-Core

[R2-2108450](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108450.zip) On RAN4 LS on Temporary RS for SCell activation Huawei, HiSilicon discussion Rel-17 LTE\_NR\_DC\_enh2-Core

## 8.3 Multi SIM

(LTE\_NR\_MUSIM-Core; leading WG: RAN2; REL-17; WID: RP-210316)

Time budget: 1 TU

Tdoc Limitation: 4 tdocs

Email max expectation: 3-4 threads

### 8.3.1 Organizational, Requirements and Scope

Including LSs and any rapporteur input.

[R2-2106935](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106935.zip) Reply LS on NAS-based busy indication (R3-212877; contact: ZTE) RAN3 LS in Rel-17 LTE\_NR\_MUSIM-Core To:RAN2, SA2, CT1 Cc:SA3

[R2-2106970](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106970.zip) Reply LS on NAS-based busy indication (S2-2105150; contact: Intel) SA2 LS in Rel-17 LTE\_NR\_MUSIM-Core To:RAN2, CT1, RAN3 Cc:SA3

[R2-2107300](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107300.zip) [Draft] Reply LS on NAS-based busy indication Intel Corporation LS out Rel-17 LTE\_NR\_MUSIM-Core To:SA2 Cc:SA3, RAN2, CT1, RAN3

### 8.3.2 Paging collision avoidance

This agenda item may be deprioritized in this meeting.

Including discussion on RAN2 aspects of paging collision avoidance

[R2-2107326](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107326.zip) Open Issues on Paging Collision Avoidance CATT discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2107388](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107388.zip) Solutions for paging collision Qualcomm Incorporated discussion

[R2-2107855](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107855.zip) Paging Collision avoidance vivo discussion

[R2-2107974](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107974.zip) Paging collision avoidance Ericsson discussion

[R2-2108015](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108015.zip) Definition and solution for paging collision, RRC Inactive, SI change Lenovo Mobile Com. Technology discussion LTE\_NR\_MUSIM-Core

[R2-2108119](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108119.zip) Paging Collision Avoidance Open Issues Huawei, HiSilicon discussion Rel-17 R2-2105917

[R2-2108724](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108724.zip) Considerations on Paging Collision LG Electronics discussion Rel-17 LTE\_NR\_MUSIM-Core R2-2106109

### 8.3.3 UE notification on network switching for multi-SIM

Including discussion on whether RAN2 decision on NAS-based busy indication can be retained (cv. SA2 LS [S2-2105150](https://www.3gpp.org/ftp/tsg_sa/WG2_Arch/TSGS2_145E_Electronic_2021-05/Docs/S2-2105150.zip))

Including discussion on "configured time" for AS-based solution.

Including interaction between AS-based solution and NAS-based solution for network switching

Including outcome of [Post114-e][242][MUSIM] Switching message details (vivo)

Including outcome of [Post114-e][243][MUSIM] Gap handling (ZTE)

[R2-2107025](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107025.zip) Discussion on Configured Time for AS-based Solution OPPO discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2107026](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107026.zip) Further Consideration for Busy Indication OPPO discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2107027](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107027.zip) Interaction between AS-based and NAS-based Solution for Network Switching OPPO discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2107237](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107237.zip) Considerations on Busy Indication Approach Samsung discussion

[R2-2107265](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107265.zip) Analysis on AS-based solution and NAS-based solution China Telecommunications discussion

[R2-2107301](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107301.zip) NAS and AS procedures and their interaction for aperiodic gap request Intel Corporation discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2107327](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107327.zip) Open Issues on Network Switching CATT discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2107459](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107459.zip) Network switching with leaving RRC Connected State of Multi-SIM China Telecommunication discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2107477](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107477.zip) Network switching for Multi-USIM devices during dual connectivity Samsung discussion

[R2-2107597](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107597.zip) Signaling aspects of MUSIM Network Switching Apple discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2107598](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107598.zip) MUSIM Band Conflict-RRC Processing Delay-Caller ID Requirements Apple discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2107781](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107781.zip) Open issues on scheduling gap for network switching NEC discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2107789](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107789.zip) RAN Initiated Network switching with Leaving RRC\_CONNECTED SHARP Corporation discussion

[R2-2107791](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107791.zip) Open Issues for MUSIM Network Switching Charter Communications, Inc discussion

[R2-2107807](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107807.zip) Further analysis on NAS level solutions for RRC-INACTIVE Nokia, Nokia Shanghai Bell discussion Rel-17

[R2-2107808](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107808.zip) On switching notification solutions for MUSIM operation Nokia, Nokia Shanghai Bell discussion Rel-17

[R2-2107856](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107856.zip) Open Issues on Switching Notification vivo discussion

[R2-2107857](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107857.zip) Summary of Switching message details vivo discussion

[R2-2107891](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107891.zip) Switching notification and busy indication Lenovo, Motorola Mobility discussion Rel-17

[R2-2107973](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107973.zip) Discussion on switching procedure without leaving RRC\_CONNECTED state Ericsson discussion

[R2-2107975](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107975.zip) Discussion on switching procedure for leaving RRC\_CONNECTED state Ericsson discussion

[R2-2108031](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108031.zip) On coordinated switch from NW for MUSIM device Huawei, HiSilicon discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2108051](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108051.zip) Discussion on Busy Indication in Inactive State Sony discussion Rel-17 LTE\_NR\_MUSIM-Core R2-2105683

[R2-2108052](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108052.zip) Discussion on AS based Leaving in MultiSIM Sony discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2108075](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108075.zip) Consideration on the busy indication at Inactive state ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2108076](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108076.zip) Interaction between AS-based solution and NAS-based solution for network switching ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_MUSIM-Core

R2-2108077 Summary of [Post114-e][243][MUSIM] Gap handling ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_MUSIM-Core Late

[R2-2108121](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108121.zip) On busy indication in RRC\_INACTIVE Huawei, HiSilicon discussion

[R2-2108182](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108182.zip) Further consideration on the remaining issues of scheduling Gap ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2108360](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108360.zip) Busy Indication in Multi-SIM Qualcomm Incorporated discussion

[R2-2108361](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108361.zip) Leaving Connected state in Multi-SIM Qualcomm Incorporated discussion

[R2-2108387](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108387.zip) Discussion about the usage of the autonomous gap Xiaomi Communications discussion

[R2-2108709](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108709.zip) Interaction between NAS and AS for network switching ASUSTeK discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2108725](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108725.zip) Considerations on SIM Swithcing LG Electronics discussion Rel-17 LTE\_NR\_MUSIM-Core R2-2106110

[R2-2108726](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108726.zip) Scheduling Gap Handling LG Electronics discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2108732](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108732.zip) Further discussion on switching message details Samsung Electronics Co., Ltd discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2108737](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108737.zip) Busy indication in INACTIVE mode MediaTek Inc. discussion Rel-17 LTE\_NR\_MUSIM-Core R2-2106351

R2-2108755 Procedures for MSIM UE notification on network switching Futurewei Technologies discussion R2-2105445 Late

[R2-2108804](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108804.zip) Signalling design on busy indication procedure DENSO CORPORATION discussion Rel-17 LTE\_NR\_MUSIM-Core

### 8.3.4 Paging with service indication

Including details of the paging cause value support and, if necessary, discussion on additional feedback to SA2

[R2-2107028](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107028.zip) Paging with Service Indication OPPO discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2107180](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107180.zip) Further discussion on introduction of paging cause China Telecommunications discussion

[R2-2107298](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107298.zip) Solution analysis for supporting Multi-SIM paging cause Intel Corporation discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2107349](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107349.zip) Discussion on the transmission of paging cause Spreadtrum Communications discussion Rel-17

[R2-2107350](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107350.zip) Supporting of Paging Cause Solution detection Spreadtrum Communications discussion Rel-17

[R2-2107379](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107379.zip) Paging Prioritization Qualcomm Incorporated discussion

[R2-2107809](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107809.zip) Service type Indication in paging for LTE/EPC Nokia, Nokia Shanghai Bell discussion Rel-17

[R2-2107858](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107858.zip) Introduction of Paging Cause vivo discussion

[R2-2107928](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107928.zip) Discussion on support of paging cause for Multi-USIM devices Samsung Electronics Co., Ltd discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2107976](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107976.zip) Introduction of a Paging cause indication Ericsson discussion

[R2-2108074](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108074.zip) Consideration on the Service Indication ZTE Corporation, Sanechips discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2108101](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108101.zip) Detailed methods of the paging cause support for MUSIM Xiaomi Communications discussion R2-2106401

[R2-2108122](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108122.zip) Discussion on the paging with service indication Huawei, HiSilicon discussion Rel-17 R2-2105921

[R2-2108549](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108549.zip) Discussion on paging service indication for MUSIM Futurewei Technologies discussion R2-2105451

[R2-2108727](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108727.zip) Support of Paging Cause LG Electronics discussion Rel-17 LTE\_NR\_MUSIM-Core R2-2106111

[R2-2108738](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108738.zip) Paging with service indication MediaTek Inc. discussion Rel-17 LTE\_NR\_MUSIM-Core R2-2106353

## 8.4 NR IAB enhancements

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

Time budget: 1 TU

Tdoc Limitation: 4 tdocs

Email max expectation: 3-4 threads

### 8.4.1 Organizational

Including work plan and any other rapporteur input.

W1 Tuesday initial on-line

[R2-2106948](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106948.zip) LS to RAN2 on reduction of service interruption during intra-donor IAB-node migration (R3-212973; contact: AT&T) RAN3 LS in Rel-17 NR\_IAB\_enh-Core To:RAN2

- Chair wonder how long the UE interruption time is? AT&T think it can be significant.

- QC think this can be very long, as this includes IP sec tunnel establishment etc, and in R16 this was very sequential.

* Noted, we will reply

[R2-2106950](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106950.zip) LS on Inter-donor migration (R3-212981; contact: Samsung) RAN3 LS in Rel-17 NR\_IAB\_enh-Core To:RAN1, RAN2, RAN4

* Noted, we will attempt to reply

[R2-2107169](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107169.zip) Updated Rel-17 IAB Workplan Qualcomm Incorporated, Samsung (WI rapporteurs) Work Plan Rel-17 NR\_IAB\_enh R2-2104858

* Noted
* [AT115-e][040][eIAB] Reply LS on reduction of service interruption for intra-donor migration (AT&T)

Scope: Reply to R2-2106948.

Intended outcome: Approved LS out

Deadline: Monday W2 (for CB if needed)

[R2-2109107](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109107.zip) Report from [AT115-e][040][eIAB] Reply LS on reduction of service interruption for intra-donor migration (AT&T) AT&T

* [040] Noted, discussion taken into account for the final discussion on the text in the LS out.

[R2-2109108](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109108.zip) Reply LS to RAN3 on reduction of service interruption during intra-donor IAB-node LS out RAN2

* [040] The LS out is approved
* [AT115-e][041][eIAB] Reply LS on Inter-donor migration (Samsung)

Scope: Reply to R2-2106950 (if possible).

Intended outcome: Approved LS out

Deadline: Monday W2 (for CB if needed)

W2 Tuesday On-line

[R2-2109122](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109122.zip) [Draft] Reply LS on inter-donor migration Samsung

DISCUSSION

- Huawei think we should make some agreements in R2 first in order to really help R3. We should add that there is limited impact.

- Huawei think that is R2 think Alt 1 is feasible, we should not ask fundamental questions.

- QC think this is a good LS and it reflects the current status in R2. QC think no one found any showstopper for Alt1 so it make sense. Samsung agrees.

- Samsung think that we are saying Alt 1 MIGHT be feasible. For Alt 2 there are bigger concerns. Samsung think R1 is also drafting a reply LS.

- Ericsson think that what need to be discussed in R2 is the single MT dual DU model. Can have a look at this next meetings. IDT agrees.

- IDT think that the question in the end is strange given the conclusion, but it is fundamental. Nokia support this view.

- Chair wonder if the understanding is that separate resources means separate cells? QC think the LS in is already saying that it means separate cells. Chair: then think feasibility is ok.

- Huawei think we should be more clear that we have concerns on Alt2.

- Samsung thought that people have now accepted the wording. Think we can state our assumptions.

- Huawei think one wording is Alt1 is feasible, and it should be changed to “might be feasible”.

- LG think that we can remove the “might”. Samsung think this si word-smithing and can be done offline.

* R2 assumes that the UE need to be able to treat the separate resources as different cells on L1.
* LS is agreeable with the addition of the above assumption. Can consider one more round of details checking.

Continue offline

[R2-2109143](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109143.zip) Reply LS on inter-donor migration RAN2 LS out

* [041] The LS out is approved

CRs

* [Post115-e][073][eIAB] 38300 Running CR (QC)

Scope: Stage-2 38300 running CR. Capture agreements.

Intended outcome: Endorsed CR

Deadline: Short 2 (not for RP)

* [Post115-e][074][eIAB] 37340 Running CR (vivo)

Scope: Stage-2 37340 running CR. Identify Impact. Capture agreements and/or introduce editor’s notes.

Intended outcome: Endorsed CR

Deadline: Short 2 (not for RP)

* [Post115-e][075][eIAB] RRC Running CR (Ericsson)

Scope: RRC running CR(s). Identify Impact. Capture agreements and/or introduce editor’s notes. Suggest in this first round to focus on NR RRC.

Intended outcome: Endorsed CR

Deadline: Short 2 (not for RP)

* [Post115-e][076][eIAB] BAP Running CR (Huawei)

Scope: 38340 running CR. Identify Impact. Capture agreements and/or introduce editor’s notes.

Intended outcome: Endorsed CR

Deadline: Short 2 (not for RP)

### 8.4.2 Enhancements to improve topology-wide fairness multi-hop latency and congestion mitigation

From previous meeting(s), there are many proposals on the table. All proposals has significant opposition. It seems clear that the ambition level for this objective need to be limited but at the same time almost nothing has been agreed. Intention at this meeting to attempt to agree on ONE (or possibly two) further solution(s). Companies are asked to input in order to facilitate such decision, i.e. asked to explain preference, and explain non-acceptable options.

[R2-2109032](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109032.zip) Feature summary of 8.4.2 (Rel-17 IAB contributions on fairness, latency and congestion) InterDigital discussion Rel-17 NR\_IAB\_enh-Core

DISCUSSION

P3 P4

- For P3 Ericsson wonder is we really shall have 256 (8-bits) this may have consequences. Samsung agrees think this may be an overkill.

- Huawei think this maps to the number of logical channels, to map to each logical channel on the bh.

P5

- LG think that long BSR format should be determined based on LCG. Think this should not be rushed. Can be done at next meeting.

P5 P6 postponed

P7a / b

- IDT indicate that the hops are the remaining hops.

- Chair understand that this would be used to weight or soft-prioritize different packets

- IDT think this goes with P8.

- FW think this is a “proxy” for the remaining PDB, is a bit sceptical. This is not needed if P8 is agreed.

- ZTE also have doubts, if you want to prioritize the packet with lower delay budget, don’t think it is possible to prioritize without identifying each packet.

- Ericsson think that PDB information would typically be configured at the IAB node. Lack the info on how the legacy info would be used with this.

- Apple think the hops is a crude estimation of PDB ..

P8

- IDT indicate that there are different impl proposals, e.g. some need update in intermediate nodes. Overhead is different.

- vivo think P8 and P7 is complementary, think we need both, otherwise a scheduler may do the wrong decision. Only after long time, e.g. during the last hops the scheduler will make the right decision base on P8 only.

- LG think P8 is a huge increase in overhead, and scheduler already have a lot of info as Ericsson commented. LG think that only failure events will cause violation of PDB. Also not sure which layer use this information. PDB is not in MAC.

- Huawei think the data is per packet, think scheduling is per LC and are not sure this makes sense.

- Sony think that CU may configure hops weight QoS information rather than per packet info.

- NEC think P8 and P7 go toghether and think intermediate IAB node should then know the time. NEC are negative to P8 P7

- Intel are negative. Goal with fairness is to provide to end user. Will cause strange prioritization, should prioritiza acc to end-to-end PDB. Ericsson think indeed this could be interesting, but could be configured by the CU, e.g. PDB per destination.

P1

- Think this is essential for fairness, without it is impossible to schedule fairly. Need to be able to prioritize within a bh RLC channel.

- NEC think that if we need prioritization we use 1:1 mapping.

- Intel think that besides fairness think that re-routing can be helped by this.

- CATT think that for nonGBR service 1:N mapping there will be no demutiplexing in internedaite IAB node.

- Ericsson wonder if we need to reconfirue intermediate nodes for P1, when UEs join and leave.

- Samsung think P7 and P8 are useful as well,

- QC point out that eLCID is 2 bytes – 64k LCIDs.

P9 P10

- Samsung think that multi-vendor interop requires some specification.

- Ericsson has concerns, if this has been implemented already, and if we change it now, there would need to be a redesign, so it could not be mandatory. Don’t think this will give any QoS enhancement. Standardizing just gives issues. Nokia agrees with Ericsson.

- Apple support. LG support 9 but question 10

- Huawei think R16 doesn’t work between vendors. Ericsson doesn’t agree, as the nodes should not cheat etc. and the objective is not multi-vendor interop.

- AT&T think this is best left to implementation.

- Chair: likely non-trival discussion are required. It seem we cannot agree now. We don’t continue this discussion.

P11

- Samsung think that FC doesn’t give gains in addition to scheduling. LG agrees with Samsung.

- LG think that BH RLF indications resolves the major issues.

- Huawei think that UL FC should be a trigger for UL re-routing. Ericsson think that if we want to enable it the decision could be local, e.g. UL scheduling gives some backpreassure so congestion will result in local buffer buildup .. Samsung agree with Ericsson.

- Nokia think this is useful, if parent node is dual connected, congestion could apply to part of the traffic, and require re-routing.

* The length of LCG to be extended to 8 bits (i.e., at most 256 LCGs).
* New Short (Truncated) BSR format to specified that has a fixed size and consists of an 8-bit LCG ID field and an 8-bit Buffer Size field.
* Exclude P1

One Further round of offline discussion:

- P7 P8

- Consider also P11, consiering that the purpose to trigger local rerouting, at situations when there would be no local build up of buffers.

- Consider complexity and gain.

* [AT115-e][042][eIAB] fairness, latency and congestion (Interdigital)

Scope: Continuing from on-line discussion, treat further P7 P8 P11 and variants thereof. Based on complexity and benefits, identify at least one agreeable or tolerable variant (if possible).

Intended outcome: Report, possible way forward.

Deadline: Tuesday W2 (for CB)

[R2-2109106](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109106.zip) Report of [AT115-e][042][eIAB] fairness, latency and congestion (Interdigital) Interdigital

DISCUSSION

- Chair: It seems all proposals have strong opposition. First ask for some comments illustrating the reasons for objections.

P2

- Ericsson think the motivation is weak. Samsung object to this proposal, as there is no proven benefit, think also it brings complexity to system operation. ZTE also think this is not useful, as UL scheduling can handle this. LG think we only need the BH RLF indication. Nokia think RLF indication doesn’t help in all situations.

- Nokia point out that from standards point of view this is a low hanging fruit, can reuse what we have for the DL.

- ZTE Samsung LG Ericsson finally object.

SOH support Object

13 5

P3

- LG has concerns on P3 P4. Object due to high complexity. Time and PDB dynamic info updating is very complex. Also it comes with significant overhead.

- Chair: the complexity argument for this proposal is significant.

P4

- IDT think the complexity aspect does not apply to P4.

SOH support Object

7 8

P5

- IDT think the complexity aspect does not apply to P5. LG thikn that a RLF re-routing would trigger significant number of table updates

- LG thikn this just doesn’t work stand-alone. FW think it need to work with P3. Chair think that a variant e.g. configuring total no of hops could potentially work in any case.

SOH support Object

10 5

- Chair: None of the proposals can be agreed for now. P3 not agreeable at all. P4 seems to have significant resistance with objections. P2 and potentially P5 (or variants thereof) can possibly be kept on the table for another meeting cycle.

- Samsung think P5 can be kept on the table, same level of objection as P2. The rapporteur (QC) think that for SoH we can count the majority and think P2 and P5 can be agreed.

- Chair expect deprioritization proposals for discussion at RP (as previous RP).

* Noted, no agreements.

[R2-2107063](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107063.zip) Fairness Latency and Congestion CATT discussion Rel-17 NR\_IAB\_enh-Core

[R2-2107113](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107113.zip) Discussion on flow control for congestion mitigation CANON Research Centre France discussion Rel-17 NR\_IAB\_enh-Core

[R2-2107177](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107177.zip) Fairness, latency and congestion – solutions to identified issues Samsung Electronics GmbH discussion

[R2-2107178](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107178.zip) Enhancements to LCG space and BSR triggering including pre-emptive BSR Samsung Electronics GmbH discussion

[R2-2107250](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107250.zip) Enhancements for topology-wide fairness, multi-hop latency and congestion mitigation Huawei, HiSilicon discussion Rel-17 NR\_IAB\_enh-Core

[R2-2107289](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107289.zip) IAB topology-wide fairness, latency, and congestion enhancement Intel Corporation discussion Rel-17 NR\_IAB\_enh-Core

[R2-2107635](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107635.zip) Way forward for IAB enhancements to improve topology-wide fairness multi-hop latency and congestion mitigation Apple discussion Rel-17 NR\_IAB\_enh-Core

[R2-2107851](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107851.zip) An elaboration of required PDB for multi-hop latency ITRI discussion NR\_IAB\_enh-Core R2-2105517

[R2-2107859](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107859.zip) Discussion on multi-hop latency and LCG extension issues vivo discussion Rel-17 NR\_IAB-Core

[R2-2107892](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107892.zip) Discussion on LCG extension for IAB Lenovo, Motorola Mobility discussion Rel-17

[R2-2107998](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107998.zip) Possible solutions for topology-wide fairness, multi-hop latency and congestion mitigation in eIAB Kyocera discussion Rel-17 R2-2105509

[R2-2108053](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108053.zip) Number of hops information to improve topology-wide fairness and latency Sony discussion Rel-17 NR\_IAB\_enh-Core

[R2-2108139](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108139.zip) Discussion on fairness, multi-hop latency and congestion mitigation ZTE, Sanechips discussion Rel-17

[R2-2108241](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108241.zip) Fairness, latency, congestion Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_IAB\_enh-Core

[R2-2108421](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108421.zip) On Topology-wide Fairness, Multi-hop Latency, and Congestion in IAB Network Ericsson discussion NR\_IAB\_enh-Core

[R2-2108437](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108437.zip) Multi-hop scheduling enhancements for IAB AT&T discussion

[R2-2108492](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108492.zip) Timing information for latency enhancement in multi-hop IAB InterDigital discussion Rel-17 NR\_IAB\_enh-Core

[R2-2108493](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108493.zip) Latency enforcement, fairness and congestion mitigation in multi-hop IAB InterDigital discussion Rel-17 NR\_IAB\_enh-Core

[R2-2108743](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108743.zip) Discussion on topology-wide fairness, multi-hop latency and congestion mitigation LG Electronics Inc. discussion Rel-17 NR\_IAB\_enh-Core

[R2-2108753](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108753.zip) Rel. 17 IAB enhancements for fairness, multi-hop latency reduction, and congestion mitigation Futurewei Technologies discussion R2-2105452

* [005][042] 20 tdoc above are noted

### 8.4.3 Topology adaptation enhancements

Including the outcome of [Post114-e][075][eIAB] Open Issues on Re-routing (Huawei)

[R2-2107251](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107251.zip) Summary of [Post114-e][075][eIAB] Open Issues on Re-routing Huawei, HiSilicon discussion Rel-17 NR\_IAB\_enh-Core Late

DISCUSSION

P6 11 12

- Ericsson think that for P11 agree with the intention but it seems like inter donor DU re-routing

P10

- QC think that R16 can do this based on CU implementation. Think BAP header re-writing is complex and thikn that if we want to re-use it we should first specify it for inter-CU and then see what to reuse for other cases.

- CATT thikn this just aligns with inter-topology re-routing. Ericsson think it is good to have same mechanism for both cases, maybe different config for inter-top vs intra CU, but the difference may be mainly visible in R3.

- ZTE thikn this doesn’t add complexity. Samsung agrees.

- Huawei thikn that the alternative is to use same BAP address for different DUs, which seems more complex.

- QC think that we need to resolve inter-donor transport.

- Huawei: Reply LS to R3 including P10 in a short post email discussion? Nokia think this can be handled between delegates. LG has same understanding that only for P10 we don’t need to send LS. Ericsson agrees. Huawei think that this relates to a specific question. QC (Rapporteur) are ok to send very short LS.

P13 P15

- Samsung could agree if as baseline means that 1:N mapping is still on the table, would prefer an explicit FFS. Chair think indeed that is what is meant by “as baseline”. Ericsson think “as baseline” is ok, and would like to understand more about 1:N, e.g. impact to BAP header info, configuration etc. Samsung agrees with Ericsson but would still like 1:N an explicit FFS. LG think baseline is sufficient.

- QC indicate that R3 consider this to be R2 domain and has made some assumptions.

P14

- Ericsson think we may need to clarify concatenated traffic, what is the definition?

- Huawei think concatenated traffic is traffic from the other topology, non-concatenated traffic is from the source topology.

* A configured threshold of available buffer size based on flow control feedback is used to determine the congestion, for the purpose of local re-routing.
* For intra-CU cases, Support inter-donor-DU re-routing at least in the scenarios of NR-DC among donor-DUs, inter-donor-DU recovery and inter-donor-DU migration.
* Support inter-CU re-routing, i.e. IAB-node re-routes the data to its original donor-CU via the alternative BAP path over the topology in target CU.
* For inter-donor-DU re-routing, support the “previous routing ID to new routing ID” BAP header rewriting.
* RAN2 to further discuss the open issues for inter-CU routing:

What’s the BAP address added in BAP header in the first topology (i.e. the BAP address of ingress data at the boundary node);

How to differentiate the concatenated traffic and non-concatenated traffic;

How to determine whether a data should be delivered to upper layer (for downstream);

How to determine whether the BAP header of a data should be rewritten (i.e. whether being routed to another topology or its own topology).

* As baseline, support the 1:1 and N:1 mapping from “previous routing ID” to “new routing ID” for BAP header rewriting at the boundary node, in inter-CU routing.
* As baseline, support the 1:1 and N:1 mapping from “ingress BH link + ingress BH RLC ID” to “egress BH link + egress BH RLC ID” for bearer mapping at the boundary node, in inter-CU routing.

QC suggest a long post email discussion for the points in Proposal 14 above (Huawei)

* [Post115-e][088][eIAB] inter-CU routing open issues (Huawei)

Scope: Address the listed open points for inter-CU routing:

- What’s the BAP address added in BAP header in the first topology (i.e. the BAP address of ingress data at the boundary node);

- How to differentiate the concatenated traffic and non-concatenated traffic;

- How to determine whether a data should be delivered to upper layer (for downstream);

- How to determine whether the BAP header of a data should be rewritten (i.e. whether being routed to another topology or its own topology).

Intended outcome: Report

Deadline: Long

Short post email for reply LS to R3 on P10 (very short LS) (Huawei).

* [Post115-e][066][eIAB] Reply LS to R3 (Huawei)

Scope: Inform on the agreement that “For inter-donor-DU re-routing, support the “previous routing ID to new routing ID” BAP header rewriting.”

Intended outcome: Approved LS out

Deadline: Short (not for RP)

General

[R2-2107516](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107516.zip) Re-routing ehnancements and RLF indications in IAB Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_IAB\_enh-Core R2-2105483

[R2-2108026](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108026.zip) Topology adaptation enhancements Samsung discussion NR\_IAB\_enh-Core

[R2-2107860](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107860.zip) Miscellaneous issues on topology adaptation vivo discussion Rel-17 NR\_IAB-Core

[R2-2107861](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107861.zip) On Inter-CU routing, Inter-donor-DU rerouting and local re-routing vivo discussion Rel-17 NR\_IAB-Core

[R2-2107893](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107893.zip) Discussion on local rerouting and local bearer remapping for IAB Lenovo, Motorola Mobility discussion Rel-17

[R2-2108054](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108054.zip) Introduce cost factor in local re-routing Sony discussion Rel-17 NR\_IAB\_enh-Core

[R2-2108141](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108141.zip) Discussion on inter-donor topology redundancy ZTE, Sanechips discussion Rel-17

[R2-2108422](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108422.zip) Boundary IAB node behaviour for partial and full inter-donor migration Ericsson discussion NR\_IAB\_enh-Core

[R2-2108423](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108423.zip) On Intra-donor Migration: Reduction of service interruption and CHO Ericsson discussion NR\_IAB\_enh-Core

[R2-2108482](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108482.zip) Solutions for Inter-Donor Routing and Bearer Mapping Futurewei Technologies discussion

[R2-2108483](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108483.zip) Enhancements to Rel. 17 IAB RLF indications and local routing Futurewei Technologies discussion R2-2105454

[R2-2108744](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108744.zip) Discussion on local routing, LCG extension, and CP-UP separation LG Electronics Inc. discussion Rel-17 NR\_IAB\_enh-Core

Inter Topology

[R2-2107170](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107170.zip) BAP-layer traffic processing at the boundary node Qualcomm Incorporated discussion Rel-17 NR\_IAB\_enh

[R2-2107445](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107445.zip) Inter-donor CU Topology migration Intel Corporation discussion Rel-17 NR\_IAB\_enh-Core

RLF indications

[R2-2108657](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108657.zip) Open issues on BH RLF indications LG Electronics discussion Rel-17

[R2-2108142](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108142.zip) Discussion on RLF indication and local re-routing ZTE, Sanechips discussion Rel-17

[R2-2107997](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107997.zip) BH RLF Indications and local rerouting for eIAB Kyocera discussion Rel-17

[R2-2108424](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108424.zip) On Local Routing and Type 2/3 RLF Handling Ericsson discussion NR\_IAB\_enh-Core

[R2-2107649](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107649.zip) Open issues on Type-2 BH RLF indication Fujitsu discussion Rel-17 NR\_IAB\_enh-Core

[R2-2107115](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107115.zip) Discussion on RLF indication enhancements CANON Research Centre France discussion Rel-17 NR\_IAB\_enh-Core R2-2105864

Local rerouting

[R2-2107516](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107516.zip) Re-routing ehnancements and RLF indications in IAB Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_IAB\_enh-Core R2-2105483

[R2-2107064](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107064.zip) Remaining issue of Local Rerouting CATT discussion Rel-17 NR\_IAB\_enh-Core

[R2-2107179](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107179.zip) Triggers for local rerouting Samsung Electronics GmbH discussion

[R2-2107290](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107290.zip) IAB dual connection, RLF and local rerouting Intel Corporation discussion Rel-17 NR\_IAB\_enh-Core

[R2-2107648](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107648.zip) Open issues on (re-)routing Fujitsu discussion Rel-17 NR\_IAB\_enh-Core

[R2-2107112](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107112.zip) Discussion on BH Link issue detection CANON Research Centre France discussion Rel-17 NR\_IAB\_enh-Core

[R2-2108416](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108416.zip) Support for inter-donor-DU rerouting Qualcomm Finland RFFE Oy discussion Rel-17

[R2-2107517](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107517.zip) Inter-donor-DU rerouting Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_IAB\_enh-Core R2-2105483

[R2-2107651](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107651.zip) UE handover during inter-donor-CU migration Fujitsu discussion Rel-17 NR\_IAB\_enh-Core

[R2-2107114](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107114.zip) Discussion on inter-donor DU local re-routing CANON Research Centre France discussion Rel-17 NR\_IAB\_enh-Core R2-2105848

LS in

[R2-2107172](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107172.zip) RAN2 aspects related to RAN3’s LS on Full Migration Qualcomm Incorporated, Apple discussion Rel-17 NR\_IAB\_enh

[R2-2107065](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107065.zip) On Two Logical IAB-DUs in Boundary IAB-node CATT discussion Rel-17 NR\_IAB\_enh-Core

[R2-2107252](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107252.zip) Discussion on two logical DUs and service interruption reduction for RAN3 LS Huawei, HiSilicon discussion Rel-17 NR\_IAB\_enh-Core

[R2-2107518](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107518.zip) Analysis of RAN3 LS on Inter-donor migration Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_IAB\_enh-Core

[R2-2107636](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107636.zip) Topology adaptation and RLF handling in eIAB networks Apple discussion Rel-17 NR\_IAB\_enh-Core

[R2-2108140](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108140.zip) Discussion on inter-donor migration and service interruption reduction ZTE, Sanechips discussion Rel-17

[R2-2108438](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108438.zip) Alternatives for full inter-donor migration AT&T discussion

LS in

[R2-2107171](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107171.zip) Discussion of RAN3 LS on Interruption time reduction for Intra-donor IAB-node Migration Qualcomm Incorporated, Apple discussion Rel-17 NR\_IAB\_enh

[R2-2107066](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107066.zip) Reducing Service Interruption during Intra-donor IAB-node Migration CATT discussion Rel-17 NR\_IAB\_enh-Core

[R2-2107291](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107291.zip) Intra-donor CU topology migration Intel Corporation discussion Rel-17 NR\_IAB\_enh-Core

[R2-2107650](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107650.zip) Reduction of service interruption Fujitsu discussion Rel-17 NR\_IAB\_enh-Core

[R2-2107862](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107862.zip) Discussion on Migration and Service Interruption vivo discussion Rel-17 NR\_IAB-Core

CHO Recovery

[R2-2107254](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107254.zip) F1 over NR access link and CHO Huawei, HiSilicon discussion Rel-17 NR\_IAB\_enh-Core

[R2-2107894](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107894.zip) CHO recovery in IAB Lenovo, Motorola Mobility discussion Rel-17

[R2-2107701](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107701.zip) CHO for IAB NEC discussion Rel-17 NR\_IAB\_enh-Core

[R2-2108658](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108658.zip) CHO and DAPS-like Solution for eIAB LG Electronics discussion Rel-17

[R2-2108494](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108494.zip) CHO in IAB InterDigital discussion Rel-17 NR\_IAB\_enh-Core

DAPS like

[R2-2107700](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107700.zip) DAPS-like handover and NR DC for IAB NEC discussion Rel-17 NR\_IAB\_enh-Core

[R2-2108495](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108495.zip) DAPS support in IAB InterDigital discussion Rel-17 NR\_IAB\_enh-Core

Withdrawn

R2-2107695 Topology optimization in IAB NEC discussion Rel-17 NR\_IAB\_enh-Core Withdrawn

### 8.4.4 Other

Includes Duplexing enhancements RAN2 scope

## 8.5 NR IIoT URLLC

(NR\_IIOT\_URLLC\_enh-Core; leading WG: RAN2; REL-17; WID: RP-210854)

Time budget: 1 TU

Tdoc Limitation: 3 tdocs

Email max expectation: 4 threads

### 8.5.1 Organizational

Rapporteur input including [Post114-e][509][URLLC/IIoT] Running Stage 2 CR review (Nokia)

[R2-2108019](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108019.zip) Summary of Email Discussion [Post114-e][509][URLLC/IIoT] Running Stage 2 CR review (Nokia) Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_IIOT\_URLLC\_enh

[R2-2108020](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108020.zip) Stage-2 Running CR for Rel-17 IIoT/URLLC Nokia, Nokia Shanghai Bell CR Rel-17 38.300 16.6.0 0383 - B NR\_IIOT\_URLLC\_enh

### 8.5.2 Enhancements for support of time synchronization

Including email discussion [Post114-e][512][URLLC/IIoT] T-synch open issues (Intel)

RAN1 progress if any should be taken into account. Contributions should aim to bring new issues not covered in email discussions already and should be clearly separated in the document from issues covered in email discussions.

R2-2107116 Triggered Synchronization Activation CANON Research Centre France discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core Late

[R2-2107152](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107152.zip) Discussion about time synchronization enhancements Huawei, HiSilicon discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2107528](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107528.zip) RE: LS on Time Synchronization IEEE 1588 WG LS in To:RAN, SA Cc:RAN2

[R2-2107556](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107556.zip) Propagation Delay Compensation for TSN Qualcomm Incorporated discussion Rel-17

[R2-2107736](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107736.zip) Consideration on the support of time synchronization enhancement OPPO discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2107741](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107741.zip) Remaining issues on time synchronization and PDC ZTE Corporation, Sanechips, China Southern Power Grid Co., Ltd discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2107800](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107800.zip) Discussion on propagation delay compensation vivo discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2107897](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107897.zip) Left issues for propagation delay compensation Lenovo, Motorola Mobility discussion Rel-17

[R2-2108021](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108021.zip) Time Synchronization Signalling Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_IIOT\_URLLC\_enh

[R2-2108097](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108097.zip) Summary of PDC Issues Ericsson discussion

[R2-2108168](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108168.zip) Discussion on RAN enhancement to support propagation delay compensation China Telecommunications discussion Rel-17

[R2-2108258](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108258.zip) Issues on Propagation Delay Compensation Samsung discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2108296](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108296.zip) Report of email discussion [Post114-e][512][URLLC/IIoT] T-synch open issues (Intel) Intel Corporation discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2108436](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108436.zip) Leftover aspects on Timing Synchronization Intel Corporation discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2108547](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108547.zip) Support of time synchronization for TSN based on RAN1 progress CMCC discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2108553](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108553.zip) Discussion on enhancements for support of time synchronization LG Electronics Inc. discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core R2-2106433

[R2-2108793](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108793.zip) Discussion on the PDC support for IDLE or CONNECTED Xiaomi Communications discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2108803](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108803.zip) Timing synchronization for UE in RRC\_INACTIVE state and RRC\_IDLE state TCL Communication Ltd. discussion Rel-17 NR\_IIOT\_URLLC\_enh R2-2106324

[R2-2108815](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108815.zip) Discussion on uplink time synchronization for TSN NTT DOCOMO, INC. discussion Rel-17 R2-2100781

### 8.5.3 Uplink enhancements for URLLC in unlicensed controlled environments

Including [Post114-e][510][URLLC/IIoT] Open issues for UCE

Contributions should aim to bring new issues not covered in email discussions already and should be clearly separated in the document from issues covered in email discussions.

[R2-2107153](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107153.zip) Remaining issues about Uplink enhancements for URLLC in UCE Huawei, HiSilicon discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2107201](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107201.zip) Sequential processing of autonomous retransmission and lch-based prioritization CATT discussion NR\_IIOT\_URLLC\_enh-Core

[R2-2107202](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107202.zip) Time-based HPID for gNB-scheduled dynamic retransmissions CATT discussion NR\_IIOT\_URLLC\_enh-Core

[R2-2107557](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107557.zip) CG Harmonization for Unlicensed Controlled Environment Qualcomm Incorporated discussion Rel-17

[R2-2107737](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107737.zip) Consideration on URLLC over NR-U OPPO discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2107801](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107801.zip) Remaining issues about autonomous re-transmission vivo discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2107896](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107896.zip) Further details on enhancements for URLLC in UCE Lenovo, Motorola Mobility discussion Rel-17

[R2-2108022](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108022.zip) Remaining Issues of URLLC in NR-Unlicensed Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_IIOT\_URLLC\_enh

[R2-2108098](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108098.zip) Harmonizing UL CG enhancements in NR-U and URLLC Ericsson discussion

R2-2108231 Summary of [Post114-e][510][URLLC/IIoT] Open issues for UCE MediaTek Inc. discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core Late

[R2-2108270](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108270.zip) Further Consideration On the URLLC transmission in UCE ZTE Corporation discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2108667](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108667.zip) IIoT operation in unlicensed controlled environment InterDigital discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2108674](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108674.zip) Uplink enhancements for URLLC in unlicensed controlled environments Intel Corporation discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2108748](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108748.zip) Remaining issues of harmonizing UL CG enhancements for IIoT in UCE III discussion NR\_IIOT\_URLLC\_enh-Core

[R2-2108758](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108758.zip) Issues on Prioritization in UCE Samsung discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2108794](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108794.zip) Remaining issues of CG harmonization Xiaomi Communications discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core R2-2105724

[R2-2108810](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108810.zip) Retransmission of UCI-only MAC PDU LG Electronics UK discussion NR\_IIOT\_URLLC\_enh-Core

### 8.5.4 RAN enhancements based on new QoS

Including [Post114-e][511][URLLC/IIoT] QoS Solutions (Samsung)

Contributions should aim to bring new issues not covered in email discussions already and should be clearly separated in the document from issues covered in the email discussion

RAN enhancements based on new QoS related parameters taken into account SA2 progress

[R2-2107154](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107154.zip) Discussion on two-level PERs for survival time handling Huawei, HiSilicon discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2107173](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107173.zip) Report from email discussion [Post114-e][511][URLLC/IIoT] QoS Solutions (Samsung) Samsung Electronics GmbH report

[R2-2107174](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107174.zip) Entering, operating in, and exiting the Survival Time state Samsung Electronics GmbH discussion

[R2-2107203](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107203.zip) UE-based reactive solution for survival time CATT discussion NR\_IIOT\_URLLC\_enh-Core

[R2-2107558](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107558.zip) RAN Enhancement to support Survival Time QUALCOMM Europe Inc. - Italy discussion Rel-17

[R2-2107611](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107611.zip) Reliability enhancements for CG/SPS Apple discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2107612](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107612.zip) Further considerations on survival time for new QoS Apple discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2107658](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107658.zip) L1/L2 configuration adaptation Fujitsu discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2107738](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107738.zip) Consideration on RAN enhancement based on new QoS OPPO discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2107742](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107742.zip) Remaining issues on enhanced QoS ZTE Corporation, Sanechips, China Southern Power Grid Co., Ltd discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2107802](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107802.zip) Consideration on reactive solution for survival time vivo discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2107806](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107806.zip) Further discussions on RAN enhancements based on Survival Time III discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2107895](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107895.zip) Discuss on the mechanism to guarantee the survival time Lenovo, Motorola Mobility discussion Rel-17

[R2-2108023](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108023.zip) Analysis of Potential RAN Enhancements for Survival Time Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_IIOT\_URLLC\_enh

[R2-2108099](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108099.zip) RAN enhancements based on new QoS related parameters Ericsson discussion

[R2-2108169](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108169.zip) Discussion on RAN enhancement to support new QoS China Telecommunications discussion Rel-17

[R2-2108435](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108435.zip) UE-based Survival time handling Intel Corporation discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2108457](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108457.zip) ST handling with alternating CC allocations Sequans Communications discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2108459](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108459.zip) Discussion on avoiding prematurely entering Survival Time state Futurewei Technologies discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2108516](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108516.zip) Discussion on the RAN support for new QoS parameters CMCC discussion Rel-17 NR\_IIOT\_URLLC\_enh

[R2-2108666](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108666.zip) Enhancements based on new QoS requirements InterDigital discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core

[R2-2108786](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108786.zip) Progress of QoS LG Electronics UK discussion NR\_IIOT\_URLLC\_enh-Core

[R2-2108795](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108795.zip) Clarification on the survival time requirement Xiaomi Communications discussion Rel-17 NR\_IIOT\_URLLC\_enh-Core R2-2105725

## 8.6 Small Data enhancements

(NR\_SmallData\_INACTIVE-Core; leading WG: RAN2; REL-17; WID: RP-210870)

Time budget: 1.5 TU

Tdoc Limitation: 5 tdocs

Email max expectation: 5 threads

### 8.6.1 Organizational

In coming LSs, rapporteur input for email discussions summaires etc (tdocs in this don’t count towards tdoc limit).

Inputs expected for 38.321 CR (Huawei), 38.331 CR (ZTE), 38.300 CR (Nokia)

Including [Post114-e][504][SData] Running Stage 2 CR review (Nokia), [Post114-e][505][SData] RRC/MAC modeling and RRC running CR (ZTE), and [Post114-e][506][SData] Running MAC CR (Huawei)

[R2-2106923](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106923.zip) LS on the physical layer aspects of small data transmission (R1-2106335; contact: ZTE) RAN1 LS in Rel-17 NR\_SmallData\_INACTIVE-Core To:RAN2

[R2-2106931](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106931.zip) Reply LS on small data transmission (R3-212820; contact: Ericsson) RAN3 LS in Rel-17 NR\_SmallData\_INACTIVE-Core To:RAN2

[R2-2107478](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107478.zip) RRC Running CR for SDT ZTE Corporation (rapporteur) draftCR Rel-17 38.331 16.5.0 B NR\_SmallData\_INACTIVE-Core R2-2105927

[R2-2107486](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107486.zip) Summary: [Post114-e][505][SData] RRC/MAC modeling and RRC running CR (ZTE) ZTE Corporation (Rapporteur) report

R2-2107494 Running MAC CR for small data Huawei, HiSilicon draftCR Rel-17 38.321 16.5.0 B NR\_SmallData\_INACTIVE-Core Late

R2-2107495 Remaining issue for MAC spec Huawei, HiSilicon discussion Rel-17 NR\_SmallData\_INACTIVE-Core Late

R2-2107496 Summary of [Post114-e][506][SData] Running MAC CR (Huawei) Huawei, HiSilicon discussion Rel-17 NR\_SmallData\_INACTIVE-Core Late

[R2-2108242](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108242.zip) Stage-2 running CR Introduction of SDT Nokia, Nokia Shanghai Bell CR Rel-17 38.300 16.6.0 0357 2 B NR\_SmallData\_INACTIVE-Core R2-2105877

### 8.6.2 User plane common aspects

Overall user plane procedure for SDT (including triggering and thresholds, HARQ, and MAC CEs), data volume computation,. suppression of PDCP status report, RSRP threshold for SDT selection, switching between CG/RA

[R2-2107002](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107002.zip) User Plane Common Aspects of RACH and CG based SDT Samsung Electronics Co., Ltd discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2107053](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107053.zip) Further Discussion on User Plane Aspect for Small Data Transmission vivo discussion Rel-17 NR\_SmallData\_INACTIVE-Core R2-2104760

[R2-2107055](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107055.zip) Handling of non-SDT Data Arrival vivo discussion NR\_SmallData\_INACTIVE-Core

[R2-2107245](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107245.zip) Discussion on the remianing issues of SDT modelling OPPO discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2107246](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107246.zip) Discussion on user plane issues of SDT OPPO discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2107295](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107295.zip) User Plane leftover issues on SDT mechanism Intel Corporation discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2107464](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107464.zip) Switching during a SDT procedure FGI, Asia Pacific Telecom discussion

[R2-2107487](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107487.zip) Common aspects for UP for SDT ZTE Corporation, Sanechips discussion

[R2-2107778](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107778.zip) User plane aspects of SDT NEC discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2107844](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107844.zip) User plane aspects of small data transmission InterDigital, Europe, Ltd. discussion Rel-17

[R2-2107898](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107898.zip) The UP common issues for small data transmissions Lenovo, Motorola Mobility discussion Rel-17

[R2-2107991](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107991.zip) UP common aspects of SDT Qualcomm Incorporated discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2108055](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108055.zip) User Plane aspects of SDT in NR Sony discussion Rel-17 NR\_SmallData\_INACTIVE-Core R2-2105690

[R2-2108087](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108087.zip) Common aspects for SDT Ericsson discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2108200](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108200.zip) User plane common aspects for SDT Huawei, HiSilicon discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2108508](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108508.zip) UP common issues of SDT CMCC discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2108680](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108680.zip) Consideration on PDCP protocol in SDT CATT discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2108681](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108681.zip) Consideration on UP common aspects of SDT CATT discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2108710](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108710.zip) BSR and PHR for SDT procedure ASUSTeK discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2108729](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108729.zip) Remaining untreated proposals from [AT113bis-e][501] UP SDT open issues LG Electronics Inc. (Rapporteur) report Rel-17 NR\_SmallData\_INACTIVE-Core R2-2106310

[R2-2108730](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108730.zip) Remaining UP issues in SDT LG Electronics Inc. discussion Rel-17 NR\_SmallData\_INACTIVE-Core R2-2106311

[R2-2108788](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108788.zip) Discussion on the data volume computation Xiaomi Communications discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2108789](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108789.zip) Handling of MAC CE Xiaomi Communications discussion Rel-17 NR\_SmallData\_INACTIVE-Core

### 8.6.3 Control plane common aspects

NOTE: expected input: paper containing the remaining proposals not discussed as part of [Post113-e][503] from rapporteur to be treated.

Focus contributions on FFS and topics that are not relying on inputs from RAN3/SA3/CT1

Cell reselection and failure handling, handling of subsequent data transmissins (including, how to indicate presence of subsequent data, etc) handling of non-SDT DRBs (including whether to resume or not non-SDT), CP data over SDT, SDT termination and data loss prevention

Including [Post114-e][507][SData] Non-SDT data arrival handling (Intel)

[R2-2107003](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107003.zip) Control Plane Common Aspects of RACH and CG based SDT Samsung Electronics Co., Ltd discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2107054](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107054.zip) Discussion on RRC-Controlled Small Data Transmission vivo discussion Rel-17 NR\_SmallData\_INACTIVE-Core R2-2104761

[R2-2107247](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107247.zip) Discussion on control plane issues of SDT OPPO discussion Rel-17 NR\_SmallData\_INACTIVE-Core

R2-2107292 Report of email discussion [Post114-e][507][SData] Non-SDT data arrival handling Intel Corporation discussion Rel-17 NR\_SmallData\_INACTIVE-Core Late

[R2-2107293](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107293.zip) Control Plane leftover issues on SDT mechanism Intel Corporation discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2107294](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107294.zip) Expected duration and applicable features for SDT procedure Intel Corporation discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2107463](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107463.zip) Issues of the Subsequent Data Transmission FGI, Asia Pacific Telecom discussion

[R2-2107488](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107488.zip) Common aspects for CP for SDT ZTE Corporation, Sanechips discussion

[R2-2107491](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107491.zip) Control plane common aspects for SDT Huawei, HiSilicon discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2107493](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107493.zip) Discussion on the NAS aspects of Small Data Huawei, HiSilicon discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2107580](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107580.zip) Power Saving for SDT Apple discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2107581](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107581.zip) Non-SDT handling during the SDT procedure Apple discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2107582](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107582.zip) Control plane aspects on the SDT procedure Apple discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2107659](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107659.zip) Handling of SDTF detection timer Fujitsu discussion Rel-17 NR\_SmallData\_INACTIVE-Core R2-2104981

[R2-2107660](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107660.zip) RAN paging reception and response during SDT Fujitsu discussion Rel-17 NR\_SmallData\_INACTIVE-Core R2-2104982

[R2-2107779](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107779.zip) Control plane aspects of SDT NEC discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2107866](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107866.zip) Consideration on switching to non-SDT procedure LG Electronics Inc. discussion NR\_SmallData\_INACTIVE-Core

[R2-2107868](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107868.zip) Consideration on security issue on CCCH-based approach LG Electronics Inc. discussion NR\_SmallData\_INACTIVE-Core

[R2-2107899](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107899.zip) Discussion on CP data transmission over SDT Lenovo, Motorola Mobility discussion Rel-17

[R2-2107992](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107992.zip) CP common aspects of SDT Qualcomm Incorporated discussion Rel-17 NR\_SmallData\_INACTIVE-Core R2-2105885

[R2-2108006](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108006.zip) Discussion on some FFSes Potevio Company Limited discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2108009](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108009.zip) Paging reception during SDT Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SmallData\_INACTIVE-Core Revised

[R2-2108056](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108056.zip) Discussion on subsequent SDT in NR Sony discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2108088](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108088.zip) SDT Faliure Handling Ericsson discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2108089](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108089.zip) CP aspects for SDT Ericsson discussion

[R2-2108261](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108261.zip) SDT control plane aspects Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SmallData\_INACTIVE

[R2-2108262](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108262.zip) RRC procedure for SDT Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SmallData\_INACTIVE

[R2-2108327](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108327.zip) SDT cell re-selection Convida Wireless other Rel-17 NR\_SmallData\_INACTIVE-Core R2-2106040

[R2-2108506](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108506.zip) Consideration on control plane issues CMCC discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2108591](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108591.zip) Paging reception during SDT Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SmallData\_INACTIVE-Core [R2-2108009](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108009.zip)

[R2-2108665](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108665.zip) Untreated proposal from [Post113-e][503] InterDigital discussion Rel-17 NR\_SmallData\_INACTIVE-Core R2-2106051

[R2-2108682](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108682.zip) Consideration on CP issues CATT discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2108731](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108731.zip) Non-SDT data arrival handling LG Electronics Inc. discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2108790](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108790.zip) Paging reception during SDT Xiaomi Communications discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2108816](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108816.zip) Handling of abrupt termination for SDT ZTE Wistron Telecom AB discussion Rel-17

### 8.6.4 Aspects specific to RACH based schemes

RA resource configuration and selection, PDCCH monitoring after successful SDT RA completion, RAN2 specific details of context fetch/data forwarding with and without anchor relocation

[R2-2107004](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107004.zip) RACH configuration for Small Data Transmission. Samsung Electronics Co., Ltd discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2107005](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107005.zip) Further Details of RACH bsaed Small Data Transmission Samsung Electronics Co., Ltd discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2107056](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107056.zip) Supporting Small Data Transmission via RA Procedure vivo discussion Rel-17 NR\_SmallData\_INACTIVE-Core R2-2104763

[R2-2107248](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107248.zip) Discussion on RACH-based SDT OPPO discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2107296](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107296.zip) RACH leftover issues on SDT mechanism Intel Corporation discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2107354](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107354.zip) Discussion on RACH-based SDT Spreadtrum Communications discussion Rel-17

[R2-2107465](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107465.zip) PDCCH monitoring in RA-SDT FGI, Asia Pacific Telecom discussion

[R2-2107489](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107489.zip) Open issues for RA-SDT ZTE Corporation, Sanechips discussion

[R2-2107583](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107583.zip) RACH specific SDT procedure Apple discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2107780](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107780.zip) Aspects specific to RACH based schemes NEC discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2107993](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107993.zip) Open issues for RACH based SDT Qualcomm Incorporated discussion Rel-17 NR\_SmallData\_INACTIVE-Core R2-2105886

[R2-2108057](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108057.zip) Discussion on context fetch and anchor relocation Sony discussion Rel-17 NR\_SmallData\_INACTIVE-Core R2-2105692

[R2-2108058](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108058.zip) RACH-based SDT in NR Sony discussion Rel-17 NR\_SmallData\_INACTIVE-Core R2-2105693

[R2-2108085](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108085.zip) RACH based small data transmission Ericsson discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2108199](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108199.zip) Small data transmission with RA-based schemes Huawei, HiSilicon discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2108243](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108243.zip) Details of RACH specific schemes Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2108507](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108507.zip) Discussion on RA-SDT CMCC discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2108683](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108683.zip) Transition from SDT to RRC\_CONNECTED CATT discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2108702](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108702.zip) Discussion on RA-based small data transmission Google Inc. discussion Rel-17 NR\_SmallData\_INACTIVE-Core Late

[R2-2108711](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108711.zip) Discussion on fallback to non-SDT ASUSTeK discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2108712](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108712.zip) Discussion on PDCCH monitoring for RA-SDT ASUSTeK discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2108713](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108713.zip) Discussion on RA configuration reception ASUSTeK discussion Rel-17 NR\_SmallData\_INACTIVE-Core

### 8.6.5 Aspects specific to CG based schemes

Including [Post114-e][508][SData] Open issues for CG-SDT (Qualcomm)

Contributions should aim to bring new issues not covered in email discussions already and should be clearly separated in the document from issues covered in the email discussion.

CG resources, configuration and selection, validity of CG resources, multiple CG configurations, handling of beam selection for CG (including association between CGs and SSBs) etc.

[R2-2107006](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107006.zip) Details of Configured Grant based Small Data Transmission Samsung Electronics Co., Ltd discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2107057](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107057.zip) Supporting Small Data Transmission via CG PUSCH vivo discussion NR\_SmallData\_INACTIVE-Core

[R2-2107249](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107249.zip) Discussion on CG-based SDT OPPO discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2107297](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107297.zip) CG-SDT leftover aspects Intel Corporation discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2107440](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107440.zip) Discussion on CG-SDT Request by UE NEC Telecom MODUS Ltd. discussion R2-2106012

[R2-2107490](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107490.zip) Open issues for CG-SDT ZTE Corporation, Sanechips discussion

[R2-2107492](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107492.zip) CG-based schemes for SDT Huawei, HiSilicon discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2107584](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107584.zip) CG specific SDT procedure Apple discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2107661](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107661.zip) PDCCH monitoring and SDT-TAT Fujitsu discussion Rel-17 NR\_SmallData\_INACTIVE-Core R2-2004983

[R2-2107788](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107788.zip) Discussion on beam selection aspect for CG-SDT PANASONIC R&D Center Germany discussion

[R2-2107850](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107850.zip) CG-based SDT selection and configuration InterDigital, Europe, Ltd. discussion Rel-17

[R2-2107867](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107867.zip) Consideration on open issues of CG-SDT LG Electronics Inc. discussion NR\_SmallData\_INACTIVE-Core

[R2-2107900](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107900.zip) Consideration on CG based small data transmission Lenovo, Motorola Mobility discussion Rel-17

[R2-2107930](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107930.zip) Report of [Post114-e][508][SData] Open issues for CG-SDT Qualcomm Incorporated discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2107994](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107994.zip) Open issues for CG based SDT Qualcomm Incorporated discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2108010](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108010.zip) Aspects specific to CG based SDT Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SmallData\_INACTIVE

[R2-2108059](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108059.zip) CG-based SDT in NR Sony discussion Rel-17 NR\_SmallData\_INACTIVE-Core R2-2105694

[R2-2108086](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108086.zip) Details of CG based SDT Ericsson discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2108509](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108509.zip) Consideration on CG-SDT CMCC discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2108630](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108630.zip) Discussion on CG small data transmission Google Inc. discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2108684](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108684.zip) Analysis and views on CG-SDT CATT discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2108714](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108714.zip) Discussion on CS-RNTI for CG-SDT ASUSTeK discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2108791](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108791.zip) RACH failure in subsequent data transmission phase Xiaomi Communications discussion Rel-17 NR\_SmallData\_INACTIVE-Core

[R2-2108792](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108792.zip) Remaining issues of CG SDT in RAN2 Xiaomi Communications discussion Rel-17 NR\_SmallData\_INACTIVE-Core R2-2104223

## 8.7 NR Sidelink relay

(NR\_SL\_Relay-Core; leading WG: RAN2; REL-17; WID: RP-211050)

Time budget: 2 TU

Tdoc Limitation: 7 tdocs

Email max expectation: 7 threads

### 8.7.1 Organizational

Incoming LSs, TS updates, rapporteur inputs. This AI is reserved for rapporteur and organizational inputs. Documents in this AI do not count towards the tdoc limitation.

The LS from SA2 in [R2-2106967](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106967.zip) (S2-2104932) that addresses a mix of sidelink relay and sidelink enhancement topics will initially be handled under this AI.

[R2-2106973](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106973.zip) Reply LS on R17 Layer-2 SL Relay of UE ID exposure in paging mechanism (S3-212204; contact: Huawei) SA3 LS in Rel-17 NR\_SL\_relay-Core To:RAN2 Cc:SA2, CT1

[R2-2107043](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107043.zip) Stage 2 Running CR on Introduction of R17 SL Relay MediaTek Inc. draftCR Rel-16 38.300 16.6.0 B NR\_SL\_relay-Core

[R2-2107192](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107192.zip) Work planning for R17 SL relay OPPO Work Plan Rel-17 NR\_SL\_relay-Core

[R2-2107193](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107193.zip) Discussion on RAN2 impact from S2-2104932 OPPO discussion Rel-17 NR\_SL\_relay-Core

[R2-2107755](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107755.zip) Discuss SA2 LS on RAN dependency issues for 5G ProSe vivo discussion

[R2-2108150](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108150.zip) Draft LS reply on RAN dependency issues for 5G ProSe ZTE, Sanechips LS out Rel-17 NR\_SL\_relay-Core To:SA2 Cc:RAN1

[R2-2108194](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108194.zip) Running CR of 38.304 for SL relay Ericsson (Rapporteur) draftCR Rel-17 38.304 16.5.0 B NR\_SL\_relay-Core

[R2-2108627](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108627.zip) RRC running CR for SL relay Huawei, HiSilicon draftCR Rel-17 38.331 16.5.0 B NR\_SL\_relay-Core

[R2-2108675](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108675.zip) Draft Relay LS on RAN dependency issues for 5G ProSe Qualcomm Incorporated LS out Rel-17 NR\_SL\_relay-Core To:SA2, RAN1

[R2-2106967](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106967.zip) LS on RAN dependency issues for 5G ProSe (S2-2104932; contact: CATT) SA2 LS in Rel-17 5G\_ProSe To:RAN2

Moved from 8.22 to 8.7.1

[R2-2108179](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108179.zip) [Dratf] LS reply on RAN depandency issues CATT LS out Rel-17 To:SA2

Moved from 8.22 to 8.7.1

[R2-2108180](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108180.zip) Discussion on LS reply on RAN depandency issues CATT discussion Rel-17

Moved from 8.22 to 8.7.1

[R2-2108181](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108181.zip) Corrections on ARP SDU Type in Rel-17 CATT CR Rel-17 38.323 16.4.0 0081 - F NR\_SL\_relay-Core

Moved from 8.22 to 8.7.1

### 8.7.2 L2 relay specific topics

No documents should be submitted to 8.7.2. Please submit to 8.7.2.x.

#### 8.7.2.1 Control plane procedures

Including connection management, SI delivery, paging, access control for remote UE. This agenda item will utilise a summary document.

Including outcome of [Post114-e][605][Relay] SI and paging forwarding (vivo)

[R2-2106989](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106989.zip) Control Plane Procedures of L2 Relay CATT discussion Rel-17 NR\_SL\_relay-Core

[R2-2106990](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106990.zip) PO Monitoring for Relay UE in RRC\_CONNECTED and Remote UE in RRC\_IDLE/RRC\_INACTVE CATT discussion Rel-17 NR\_SL\_relay-Core

[R2-2107039](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107039.zip) Discussion on Control Plane Aspects for L2 Relay OPPO discussion Rel-17 NR\_SL\_relay-Core

[R2-2107044](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107044.zip) Stage 2 level procedure for Connection Establishment MediaTek Inc. discussion Rel-17

[R2-2107045](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107045.zip) Remote UE Paging handling for connected Relay UE MediaTek Inc. discussion Rel-17

[R2-2107103](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107103.zip) Further discussion on RRC connection management of L2 U2N relay Qualcomm Incorporated discussion NR\_SL\_relay-Core

[R2-2107104](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107104.zip) Further discussion on paging and SIB forwarding in L2 U2N relay Qualcomm Incorporated discussion NR\_SL\_relay-Core

[R2-2107176](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107176.zip) Remaining issues on RRC connection management Samsung Electronics GmbH discussion

[R2-2107231](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107231.zip) Discussion on RRC connection management for L2 sidelink relay Huawei, HiSilicon discussion Rel-17 NR\_SL\_relay-Core

[R2-2107232](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107232.zip) SI forwarding and paging for L2 sidelink relay Huawei, HiSilicon discussion Rel-17 NR\_SL\_relay-Core

[R2-2107273](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107273.zip) Connection Establishment Procedure for L2 UE to NW Relays InterDigital discussion Rel-17 FS\_NR\_SL\_relay

[R2-2107274](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107274.zip) Paging Procedures for L2 UE to NW Relays InterDigital discussion Rel-17 FS\_NR\_SL\_relay

[R2-2107275](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107275.zip) SI Forwarding for L2 UE to NW Relays InterDigital discussion Rel-17 FS\_NR\_SL\_relay

[R2-2107304](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107304.zip) Discussion on paging forwarding for a remote UE SHARP Corporation discussion NR\_SL\_relay-Core

[R2-2107306](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107306.zip) Remaining issues of L2 Relay connection management Intel Corporation discussion Rel-17 NR\_SL\_relay-Core

[R2-2107367](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107367.zip) Discussion on control plane procedures for L2 U2N relay Spreadtrum Communications discussion Rel-17

[R2-2107541](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107541.zip) Configuration of Uu Interface for Sidelink Relay Futurewei discussion Rel-17 NR\_SL\_relay-Core

[R2-2107622](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107622.zip) Remaining issues on SIB forwarding for IDLE/INACTIVE remote UE Apple discussion Rel-17 NR\_SL\_relay-Core

[R2-2107623](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107623.zip) Unified Access Control on Relay UE Apple discussion Rel-17 NR\_SL\_relay-Core

[R2-2107625](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107625.zip) RNA Update via L2 UE-to-NW relay Apple discussion Rel-17 NR\_SL\_relay-Core

[R2-2107708](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107708.zip) SI message forwarding in L2 U2N relay Samsung discussion Rel-17 NR\_SL\_relay-Core

[R2-2107709](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107709.zip) Paging delivery via L2 Relay in RRC\_CONNECTED Samsung discussion Rel-17 NR\_SL\_relay-Core

[R2-2107756](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107756.zip) Summary of [Post114-e][605][Relay] SI and paging forwarding (vivo) vivo discussion

[R2-2107757](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107757.zip) Way forward for L2 U2N Remote UE SRB0 SRB1 configuration vivo discussion

[R2-2107966](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107966.zip) Discussion on SI and paging delivery Xiaomi communications discussion

[R2-2107967](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107967.zip) Discussion on connection control Xiaomi communications discussion

[R2-2108007](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108007.zip) SI acquisition, CN Registration and RNAU Lenovo Mobile Com. Technology discussion Rel-17 NR\_SL\_relay-Core

[R2-2108008](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108008.zip) Monitoring Paging by a U2N Relay Lenovo Mobile Com. Technology discussion NR\_SL\_relay-Core

[R2-2108060](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108060.zip) L2 relay control plane procedures Sony discussion Rel-17 NR\_SL\_relay-Core

[R2-2108145](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108145.zip) Consideration on the connection management of SL relay ZTE, Sanechips discussion Rel-17

[R2-2108146](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108146.zip) Consideration on the system information acquisition and paging in SL relay ZTE, Sanechips discussion Rel-17

[R2-2108153](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108153.zip) SIB Delivery & Paging for Remote UE LG Electronics Inc. discussion Rel-17

[R2-2108154](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108154.zip) Connection Establishment LG Electronics Inc. discussion Rel-17

R2-2108156 Relay reselection when Relay UE performs HO LG Electronics Inc. discussion Rel-17

[R2-2108192](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108192.zip) Discussion on paging and SIB handling for L2 sidelink relay Ericsson discussion Rel-17 NR\_SL\_relay-Core

[R2-2108195](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108195.zip) Discussion on RRC connection management procedures for L2 SL relay Ericsson discussion Rel-17 NR\_SL\_relay-Core

[R2-2108414](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108414.zip) Discussion on SI and paging forwarding ETRI discussion Rel-17 NR\_SL\_relay-Core

[R2-2108458](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108458.zip) Discussion on RRC connection establishment of remote UE in L2 U2N relay Nokia, Nokia Shanghai Bell discussion NR\_SL\_relay-Core

[R2-2108462](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108462.zip) Support of idle mode mobility for remote-UE in SL UE-to-Nwk relay Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SL\_relay-Core R2-2103310

[R2-2108510](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108510.zip) Control plane procedure CMCC discussion Rel-17 NR\_SL\_relay-Core

[R2-2108734](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108734.zip) Leftover issues for SI delivery in L2 Relay Intel Corporation discussion Rel-17 NR\_SL\_relay-Core

[R2-2108820](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108820.zip) Discussion on SI reception before establishing PC5-RRC connection MediaTek Inc. discussion Rel-17 NR\_SL\_relay-Core

R2-2108824 Summary of AI 8.7.2.1 Xiaomi Technology discussion Rel-17 NR\_SL\_relay-Core

#### 8.7.2.2 Service continuity

Service continuity between Uu and relay paths, limited to intra-gNB cases. This agenda item will utilise a summary document.

[R2-2106991](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106991.zip) Service Continuity for L2 U2N Relay CATT discussion Rel-17 NR\_SL\_relay-Core

[R2-2107046](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107046.zip) Stage 2 level procedure for Service Continuity MediaTek Inc. discussion Rel-17

[R2-2107106](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107106.zip) Further discussion on Service continuity of L2 U2N relay Qualcomm Incorporated discussion NR\_SL\_relay-Core

[R2-2107196](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107196.zip) Left issues on UP aspects for service continuity OPPO discussion Rel-17 NR\_SL\_relay-Core

[R2-2107213](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107213.zip) Discussion on CP of NR sidelink relay service continuity OPPO discussion Rel-17 NR\_SL\_relay-Core

[R2-2107276](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107276.zip) Service Continuity for L2 UE to NW Relays InterDigital discussion Rel-17 FS\_NR\_SL\_relay

[R2-2107309](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107309.zip) Open aspects of Service continuity support for L2 U2N relaying Intel Corporation discussion Rel-17 NR\_SL\_relay-Core

[R2-2107452](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107452.zip) Remaining Issues on Service Continuity in L2 relaying vivo discussion

[R2-2107540](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107540.zip) Open Issues in Switches between Direct and Indirect Paths Futurewei discussion Rel-17 NR\_SL\_relay-Core

[R2-2107621](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107621.zip) Discussion on service continuity for Layer 2 UE-to-NW relay Apple discussion Rel-17 NR\_SL\_relay-Core

[R2-2107710](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107710.zip) Remaining easy proposals in outcome of [AT114-e][605][Relay] Samsung(email discussion rapporteur) discussion Rel-17 NR\_SL\_relay-Core

[R2-2107711](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107711.zip) Remaining issues in Remote UE path switch procedures Samsung discussion Rel-17 NR\_SL\_relay-Core

[R2-2107887](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107887.zip) Path switching in L2 U2N relay case Lenovo, Motorola Mobility discussion Rel-17

[R2-2107888](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107888.zip) Service continuity with relay reselection Lenovo, Motorola Mobility discussion Rel-17

[R2-2107949](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107949.zip) L2 Relay handover to non-L2-Relay capable gNB Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SL\_relay-Core

[R2-2107965](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107965.zip) Discussion on service continuity Xiaomi communications discussion

[R2-2108061](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108061.zip) Service continuity open issues in L2 NR sidelink rela Sony discussion Rel-17 NR\_SL\_relay-Core

[R2-2108147](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108147.zip) Discussion on the service continuity of SL relay ZTE, Sanechips discussion Rel-17

[R2-2108155](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108155.zip) Relay (re)selection for service continuity LG Electronics Inc. discussion Rel-17

[R2-2108157](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108157.zip) Measurement and report for path switching LG Electronics Inc. discussion Rel-17

[R2-2108193](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108193.zip) Discussion on service continuity for L2 sidelink relay Ericsson discussion Rel-17 NR\_SL\_relay-Core

R2-2108196 Feature summary of AI 8.7.2.2. Ericsson discussion Rel-17 NR\_SL\_relay-Core Late

[R2-2108282](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108282.zip) Remaining issues on service continuity of SL relay China Telecommunications discussion

[R2-2108322](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108322.zip) Open issues on service continuity for relaying Kyocera discussion Rel-17

[R2-2108464](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108464.zip) Handover interruption time reduction using sidelink communication Nokia, Nokia Shanghai Bell discussion NR\_SL\_relay-Core

[R2-2108513](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108513.zip) Service continuity for L2 relay CMCC discussion Rel-17 NR\_SL\_relay-Core

[R2-2108622](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108622.zip) Discussion on service continuity for L2 UE to NW Relay Huawei, HiSilicon discussion Rel-17 NR\_SL\_relay-Core

#### 8.7.2.3 Adaptation layer design

Including bearer mapping, remote UE identification, security aspects if any. This agenda item will utilise a summary document.

[R2-2106992](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106992.zip) Adaption Layer Design for L2 U2N Relay CATT discussion Rel-17 NR\_SL\_relay-Core

[R2-2107047](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107047.zip) Adaptation layer for PC5 at L2 UE-to-Network Relay MediaTek Inc., InterDigital discussion Rel-17

[R2-2107105](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107105.zip) Further discussion on adaptation layer of L2 U2N relay Qualcomm Incorporated discussion NR\_SL\_relay-Core

[R2-2107175](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107175.zip) Open issues with Adaptation layer design Samsung Electronics GmbH discussion

[R2-2107194](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107194.zip) Left issues on CP aspects for adaptation layer OPPO discussion Rel-17 NR\_SL\_relay-Core

[R2-2107195](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107195.zip) Left issues on UP aspects for adaptation layer OPPO discussion Rel-17 NR\_SL\_relay-Core

[R2-2107277](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107277.zip) Discussion on L2 Relay Architecture InterDigital discussion Rel-17 FS\_NR\_SL\_relay

[R2-2107307](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107307.zip) L2 U2N relaying Adaptation layer design aspects Intel Corporation discussion Rel-17 NR\_SL\_relay-Core

[R2-2107356](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107356.zip) Remaining issues on adaptation layer for L2 relay Spreadtrum Communications discussion Rel-17

[R2-2107451](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107451.zip) Adaptation Layer for L2 SL Relay vivo discussion

[R2-2107470](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107470.zip) UP aspects on Layer 2 SL relay Ericsson discussion Rel-17 NR\_SL\_relay-Core

[R2-2107620](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107620.zip) Discussion on adaptation header in PC5 link Apple discussion Rel-17 NR\_SL\_relay-Core

[R2-2107734](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107734.zip) Remaining Issues in Adaptation Layer Design Futurewei discussion Rel-17 NR\_SL\_relay-Core

[R2-2108148](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108148.zip) Discussion on adaptation layer design ZTE, Sanechips discussion Rel-17

[R2-2108250](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108250.zip) Sidelink Relay Uu RLC for Remote UE and Adaptation Layer Design Beijing Xiaomi Mobile Software discussion Rel-17

[R2-2108466](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108466.zip) Discussion on Uu adaptation layer in L2 UE-to-NW relay Nokia, Nokia Shanghai Bell discussion NR\_SL\_relay-Core R2-2106054

R2-2108484 Summary for Relay Adaptation Layer - AI 8.7.2.3 InterDigital France R&D, SAS discussion Rel-17 Late

[R2-2108511](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108511.zip) Adaption layer for L2 U2N relay CMCC discussion Rel-17 NR\_SL\_relay-Core

[R2-2108623](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108623.zip) Adaptation layer functionalities for L2 U2N relay Huawei, HiSilicon discussion Rel-17 NR\_SL\_relay-Core

#### 8.7.2.4 QoS

Mechanisms for E2E QoS management. This AI will be treated on a time-available basis. This agenda item will utilise a summary document.

[R2-2106993](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106993.zip) End-to-end QoS Management for L2 Sidelink Relay CATT discussion Rel-17 NR\_SL\_relay-Core

[R2-2107040](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107040.zip) Discussion on resource allocation and QoS management for L2 U2N relay OPPO discussion Rel-17 NR\_SL\_relay-Core

[R2-2107107](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107107.zip) Discussion on E2E QoS enforcement in L2 U2N relay Qualcomm Incorporated discussion NR\_SL\_relay-Core

[R2-2107278](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107278.zip) Discussion on QoS for L2 UE to NW Relays InterDigital discussion Rel-17 FS\_NR\_SL\_relay

[R2-2107308](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107308.zip) E2E QoS management considerations for L2 U2N relaying Intel Corporation discussion Rel-17 NR\_SL\_relay-Core

[R2-2107471](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107471.zip) Aspects for QoS management with SL relay Ericsson discussion Rel-17 NR\_SL\_relay-Core

[R2-2107497](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107497.zip) E2E QoS Provisioning with L2 Sidelink Relay Fraunhofer IIS, Fraunhofer HHI discussion Rel-17

[R2-2107624](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107624.zip) QoS enhancements for UE-to-NW relay Apple discussion Rel-17 NR\_SL\_relay-Core

[R2-2107712](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107712.zip) QoS management aspects for L2 U2N Relay Samsung discussion Rel-17 NR\_SL\_relay-Core

[R2-2107758](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107758.zip) Mechanisms for E2E QoS management vivo discussion

[R2-2107833](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107833.zip) Considerations on voice and video support for Relays Philips International B.V., MediaTek, Vivo, FirstNet discussion Rel-17 NR\_SL\_relay-Core

[R2-2108149](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108149.zip) Discussion on QoS of SL relay ZTE, Sanechips discussion Rel-17

[R2-2108512](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108512.zip) Mechanisms for E2E QoS management CMCC discussion Rel-17 NR\_SL\_relay-Core

[R2-2108624](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108624.zip) QoS management of L2 U2N relay Huawei, HiSilicon discussion Rel-17 NR\_SL\_relay-Core

[R2-2108821](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108821.zip) On recommended bit rate MediaTek Inc. discussion Rel-17 NR\_SL\_relay-Core

### 8.7.3 L2/L3 common topics

For any remaining stage 3 issues related to discovery and (re)selection. No documents should be submitted to 8.7.3. Please submit to 8.7.3.x.

#### 8.7.3.1 Relay discovery

Re-using LTE discovery as baseline. This agenda item may utilise a summary document (decision to be made based on submitted tdocs).

[R2-2106994](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106994.zip) Leftover Issues for Sidelink Discovery CATT discussion Rel-17 NR\_SL\_relay-Core

[R2-2107089](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107089.zip) Remaining issues on relay discovery Qualcomm Incorporated discussion NR\_SL\_relay-Core

[R2-2107212](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107212.zip) Discussion on remaining issue of relay discovery OPPO discussion Rel-17 NR\_SL\_relay-Core

[R2-2107279](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107279.zip) Remaining Issues on Discovery InterDigital discussion Rel-17 FS\_NR\_SL\_relay

[R2-2107313](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107313.zip) Leftover aspects of Relay discovery Intel Corporation discussion Rel-17 NR\_SL\_relay-Core

[R2-2107468](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107468.zip) Left issues for SL discovery Ericsson discussion Rel-17 NR\_SL\_relay-Core

[R2-2107713](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107713.zip) Resource allocation for SL relay discovery message Samsung discussion Rel-17 NR\_SL\_relay-Core

[R2-2107759](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107759.zip) Remaining issues on Relay Discovery vivo discussion

[R2-2107889](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107889.zip) Relay Discovery for L2 and L3 relay Lenovo, Motorola Mobility discussion Rel-17

[R2-2107950](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107950.zip) Further issues on the discovery message for NR sidelink relay Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SL\_relay-Core

[R2-2108143](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108143.zip) Further discussion on Relay discovery ZTE, Sanechips discussion Rel-17

[R2-2108152](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108152.zip) Relay Discovery transmission for stage 3 LG Electronics Inc. discussion Rel-17

[R2-2108251](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108251.zip) Relay Discovery Resource Pool Utilisation Beijing Xiaomi Mobile Software discussion Rel-17

[R2-2108324](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108324.zip) Coexistence of discovery resource pools Kyocera discussion Rel-17

[R2-2108626](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108626.zip) Remaining issue on relay discovery Huawei, HiSilicon discussion Rel-17 NR\_SL\_relay-Core

#### 8.7.3.2 Relay re/selection

Re-using LTE re/selection as baseline. This agenda item may utilise a summary document (decision to be made based on submitted tdocs).

[R2-2106995](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106995.zip) New Triggers for Relay Reselection CATT discussion Rel-17 NR\_SL\_relay-Core

[R2-2107102](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107102.zip) Remaining issues on relay (re)selection Qualcomm Incorporated discussion NR\_SL\_relay-Core

[R2-2107305](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107305.zip) Leftover aspects of Relay reselection Intel Corporation discussion Rel-17

[R2-2107469](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107469.zip) Aspects for SL relay selection and reselection Ericsson discussion Rel-17 NR\_SL\_relay-Core

[R2-2107760](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107760.zip) Remaining issues on Relay (re)selection vivo discussion

[R2-2107872](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107872.zip) Discussion on sidelink relay reselection SHARP Corporation discussion

[R2-2107890](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107890.zip) Relay (re)selection for L2 and L3 relay Lenovo, Motorola Mobility discussion Rel-17

[R2-2108144](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108144.zip) Further discussion on Relay selection ZTE, Sanechips discussion Rel-17

[R2-2108252](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108252.zip) Use of Cell ID in Sidelink L2 Relay (Re)selection Beijing Xiaomi Mobile Software discussion Rel-17

[R2-2108467](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108467.zip) Discussion on sidelink assisted mobility using UE-to-Nwk Relay Nokia, Nokia Shanghai Bell discussion

[R2-2108625](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108625.zip) Discussion on relay reselection Huawei, HiSilicon discussion Rel-17 NR\_SL\_relay-Core

[R2-2108706](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108706.zip) Remaining issues for L2 U2N relay (re)selection MediaTek Inc. discussion Rel-17

## 8.8 RAN slicing

(NR\_Slice -Core; leading WG: RAN2; REL-17; WID: RP-211289)

Time budget: 0.5 TU

Tdoc Limitation: 2 tdocs

Email max expectation: 2 threads

### 8.8.1 Organizational

Rapporteur input and running CRs

[R2-2106972](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106972.zip) LS on Cell reselection with band-specific network slices (S2-2105158; contact: Nokia) SA2 LS in Rel-17 eNS\_Ph2 To:RAN2, RAN3

Moved from 8.22 to 8.8.1

[R2-2107951](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107951.zip) Reply proposal for LS on cell reselection with band-specific network slices (S2-2105158/ [R2-2106972](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106972.zip)) Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_slice-Core

### 8.8.2 Cell reselection

Including discussion on whether SA2 proposal on band-specific slices in cell reselection has impacts on the RAN (cv. SA2 LS [S2-2105158](https://www.3gpp.org/ftp/tsg_sa/WG2_Arch/TSGS2_145E_Electronic_2021-05/Docs/S2-2105158.zip))

Including outcome of [Post114-e][251][Slicing] Solution direction details for slice priorities in cell reselection (Lenovo)

Including discussion on how "slice group" can be defined and indicated to UE

As 1st priority, including details of slice availability in terms of Slice grouping and frequency priority information for broadcast and RRC Release message, usage of “intended slice” (FFS whether we use this term in specification), UE prioritisation of slice when there is more than one intended slice and how UE determines frequency priority for inter-frequency cell reselection based on these.

As 2nd priority, including details of slice based reselection for MO, different RSRP/RSRQ thresholds for inter and intra-frequency slice based cell reselection, need for Validity area in RRC Release

[R2-2107108](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107108.zip) Further discussion on slice specific cell reselection Qualcomm Incorporated discussion NR\_slice

[R2-2107243](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107243.zip) Considerations on slice based cell reselection Beijing Xiaomi Software Tech discussion Rel-17

[R2-2107372](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107372.zip) Discussion on slice based cell reselection Spreadtrum Communications discussion Rel-17

[R2-2107383](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107383.zip) Discussion on Slice based Cell Reselection CATT discussion NR\_slice-Core

[R2-2107443](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107443.zip) Functional aspects of slice specific cell reselection Intel Corporation discussion Rel-17 NR\_slice-Core

[R2-2107461](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107461.zip) Discussion on slice based cell reselection China Telecommunication, Baicells discussion Rel-17 NR\_slice-Core

[R2-2107466](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107466.zip) Cell reselection in RAN slicing FGI, Asia Pacific Telecom discussion

[R2-2107505](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107505.zip) Considerations on contents of slice related cell selection info KDDI Corporation discussion

[R2-2107592](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107592.zip) Slice based cell reselection under NW control Apple discussion Rel-17 NR\_slice-Core

[R2-2107705](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107705.zip) Discussion on slice based cell reselection LG Electronics UK discussion Rel-17

[R2-2107730](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107730.zip) Discussion on slice aware cell reselection ZTE corporation, Sanechips discussion Rel-17 NR\_slice-Core

[R2-2107739](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107739.zip) Consideration on slice-specific cell reselection OPPO discussion Rel-17 NR\_slice-Core

[R2-2107929](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107929.zip) Discussion on slice-based cell reselection prioritization BT plc discussion Rel-17

[R2-2107952](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107952.zip) Proposals for slice specific cell reselection solutions Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_slice-Core

[R2-2108025](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108025.zip) Summary of [Post114-e][251][Slicing] Solution direction Lenovo, Motorola Mobility (Rapporteur) discussion NR\_slice-Core

[R2-2108292](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108292.zip) Slice grouping Ericsson discussion Rel-17 NR\_slice-Core

[R2-2108315](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108315.zip) Considerations on slice-based cell reselection Lenovo, Motorola Mobility discussion Rel-17 NR\_slice-Core Withdrawn

[R2-2108316](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108316.zip) On slice priority for cell reselection Samsung R&D Institute UK discussion

[R2-2108433](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108433.zip) Slice information provided by RRCRelease SHARP Corporation discussion Rel-17 R2-2106087

[R2-2108497](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108497.zip) Discussion on the solutions for slice based cell reselection CMCC discussion Rel-17 NR\_slice

[R2-2108554](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108554.zip) Discussion on slice based cell reselection under network control Huawei, HiSilicon discussion Rel-17 NR\_slice-Core

R2-2108842 Resolving FFSs for Option 4 Lenovo, Motorola Mobility discussion Rel-17 NR\_slice-Core Late

### 8.8.3 RACH

Including outcome of [Post114-e][252][Slicing] RACH partitioning details for slicing (CMCC)

Including discussion slice specific CBRA RACH for IDLE and INACTIVE mode. Slice-specific CBRA RACH for CONNECTED mode is deprioritized and will not be treated in this meeting.

NOTE: The common discussion on Rel-17 RACH partitioning will be discussed under AI 8.18. This AI will only consider RACH partitioning from slicing perspective.

[R2-2107109](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107109.zip) Further discussion on slice specific RACH Qualcomm Incorporated discussion NR\_slice

[R2-2107241](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107241.zip) Considerations on slice based RACH configuration Beijing Xiaomi Software Tech discussion Rel-17

[R2-2107384](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107384.zip) Analysis on slice based RACH configuration CATT discussion NR\_slice-Core

[R2-2107444](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107444.zip) Further considerations of slice based RACH Intel Corporation discussion Rel-17 NR\_slice-Core

[R2-2107506](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107506.zip) Slice-specific RACH configurations Nokia, Nokia Shanghai Bell discussion Rel-17 FS\_NR\_slice R2-2105475

[R2-2107593](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107593.zip) Slice based RACH configuration Apple discussion Rel-17 NR\_slice-Core

[R2-2107714](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107714.zip) Slice specific RACH type selection Samsung discussion Rel-17 NR\_slice-Core R2-2105345

[R2-2107731](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107731.zip) Slice specific RACH resources and RACH prioritization ZTE corporation, Sanechips discussion Rel-17 NR\_slice-Core

[R2-2107740](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107740.zip) Consideration on slice-specific RACH OPPO discussion Rel-17 NR\_slice-Core

[R2-2108293](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108293.zip) RACH for RAN slicing enhancement Ericsson discussion Rel-17 NR\_slice-Core

[R2-2108498](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108498.zip) Open issues for slice based RACH configuration CMCC discussion Rel-17 NR\_slice

[R2-2108504](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108504.zip) Report for [Post114-e][252][Slicing] RACH partitioning details for slicing CMCC discussion Rel-17 NR\_slice

=> Revised in R2-2108839

R2-2108839 Report for [Post114-e][252][Slicing] RACH partitioning details for slicing CMCC discussion Rel-17 NR\_slice

[R2-2108555](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108555.zip) Discussion on slice based RACH configuration Huawei, HiSilicon discussion Rel-17 NR\_slice-Core

[R2-2108759](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108759.zip) Further discussion on slice-specific RACH LG electronics Inc. discussion Rel-17 NR\_slice-Core

## 8.9 UE Power Saving

(NR\_UE\_pow\_sav\_enh-Core; leading WG: RAN2; REL-17; WID: RP-200938)

Time budget: 1 TU

Tdoc Limitation: 4 tdocs

Email max expectation: 4 threads

### 8.9.1 Organizational

E.g. Rapporteur input. Incimong LS. Running CRs etc

* [Post115-e][067][ePowSav] LS out (MediaTek)

Scope: LS out to inform about progress to other concerned groups and ask the relevant groups to take this into account and align.

Intended outcome: Approved LS out

Deadline: Short (not for RP)

* [Post115-e][077][ePowSav] Stage-2 Running CR ()

Scope: Capture message sequence chart, agreements and editors notes. For this discussion do not need to discuss what shall be captured in RAN stage-2 vs System Stage-2 (may move some part to SA2 / System stage-2 later if needed).

Intended outcome: Endorsed Draft CR

Deadline: Short 2 (not for RP)

* [Post115-e][089][ePowSav] Paging Subgrouping ()

Scope: Objective to continue work based on existing agreements. Further progress the roles of AMF gNB UE and potential impact to stage-2. Take RAN1 agreements into account. Progress how CN subgrouping and UE ID subgrouping relates to L1 and the control of this.

Intended outcome: Report to pave the way for progress

Deadline: Long

### 8.9.2 Idle/inactive-mode UE power saving

Including the outcome of [Post114-e][076][ePowSav] Paging SubGrouping (CATT). Note that only the email discussion can be input to 8.9.2, other contributions input 8.9.2.x.

[R2-2108685](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108685.zip) Summary of [Post114-e][076][ePowSav] Paging SubGrouping CATT discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

DISCUSSION

P1

- Xiaomi wonder whether we shall decide the parameters. Chair think we don’t decide detail parameters, we can outline what information we expect need to be echanged.

P2

- OPPO wonder if we need an LS. Chair think we indeed need an LS.

- FW wonder what happens it a gNB in an area doesn't support? Chair think we weill address this. but think we can anyway agree to P2 .. CATT think it may need to be discussed in R3.

- Apple think we should agree to capabilities.

- vivo think also R2 could discuss, and e.g. the paging message could be used.

- QC support P2 but think “when” is maybe not good, should state “If”

- Sony think this is indeed R3 signalling.

P3

- Ericsson think that gouping may only be applied for single cell and this may then not be needed.

P4

- Xiaomi support paging prob. Wonder if this is by NAS or AS.

- Ericsson wonder if the UE will not want to save power.

- Huawei think that paging P is best know at the UE.

- CMCC think it is already supported so it sould be supported also now. CMCC furher think that power profile low power request would not be requested unless real as he would get worse QoS

- LG think CN and gNB can estimate paging probability and think the power profile may be dynamic and UE cannot update every time, so doen’t need to be repoirted by the UE.

- Sony support Paging Probability, as he PP may depend on usage, application, user settings etc. Might not need a power profile.

- MTK think power profile can be applicable.

P5

- QC think that some POs may be reserved for CN assigned paging groups.

- OPPO think we can remove the only

P6/7

- Nokia think that also for CN based the RAN decides the number of subgroups. CATT thinkwe can add “at least”.

- Sony think that we need to consider how many subgroups the physical layer can support. Think there may be a need to map CN subgropus to L1 subgrops, e.g. several CN subgropus could be mapped to one L1 subgroup.

OI3

- Xiaomi think yes, as this was the case in LTE, Oppo think this is aligned with our agreemend. MTK think this is needed.

- Huawei think not both would be used at the same time, but can accept majority view.

- Apple think there will be separate UE caps for UEID and CN based.

- CATT think that in some cases CN will not assign a subgroup.

- Ericsson think there is two cases: 1) CN doesn't assign or UE cap 2) network can decide to not use the CN assigned subgroup, and e,g, only uses UE ID based approach,

* When AMF has assigned a UE with a Paging subgroup, some NAS signaling should be supported between AMF and UE to convey the related information to the UE. Exact information is FFS. The design and procedure are up to SA2/CT1.
* When AMF has assigned a UE with a Paging subgroup, some signaling should be supported between AMF and gNB(s) to inform gNB(s) about the related subgroup information for paging a UE in RRC\_IDLE/RRC\_INACTIVE. Exact information is FFS. The message(s) and associated design are up to RAN3.
* It is FFS when a UE in RRC\_INACTIVE has been assigned by CN a Paging subgroup, whether some signaling should be introduced between gNBs to inform each other about the UE’s subgroup for RAN paging.
* If RAN2 agrees to support UE assistance information to CN in support of Paging subgroup assignment, RAN2 will focus on the paging probability and power profile attributes.
* UEID-based subgroup method requires, in addition to the already available information for legacy UEID-based grouping in PO, the total number of supported UEID-based subgroups by the network.
* At least for UEID-based subgroup method the total number, Nsg, of supported subgroups by the network is decided by RAN and broadcasted in System Information.
* At least for UEID-based subgroup method the total number, Nsg, of supported subgroups is controlled on a cell basis and can be different in different cells.

Open Issues:

OI3: Whether to allow supporting a mix of UEs in a cell using NW-assigned subgroup and UEID-based subgroup.

OI4: Whether to allow subgrouping capable gNB to only use UEID-based subgroup and ignore CN assigned subgrouping.

DISCUSSION

- ZTE think both UE and RAN may support either UEID only or UEID+CN grouping.

- QC support Qi3, Yes, think that if gNB support subgrouping the gNB shold support both.

- Lenovo think QI3 need to be supported, think we can do as in LTE.

- For OI4, vivo think NO, as this seems to violate our previous agreement.

R1ish – Not Treated

[R2-2108062](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108062.zip) Discussion on enhancements for idle/inactive-mode UE power saving Sony discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

Withdrawn

R2-2107258 Discussion on CN-assigned paging grouping Transsion Holdings agenda Withdrawn

#### 8.9.2.1 Architecture

Further Aspects on responsibility split between nodes (and between WGs). Specific cases, E.g. for paging enhancement by grouping: how to handle non-supporting UE, non-supporting CN, non-supporting gNB, the case when CN doesn’t use UE subgrouping.

* [AT115-e][043][ePowSav] Paging Subgrouping (Nokia)

Scope: Objective is to arrive at conclusions (CB for confirm) and specify Open issues for non-concluded points.

1) Progress the capabilities discussion and handling of non-support, 2) Progress the architecture. Produce an agreeable generic Message sequence chart. Refine aspects of AMF, gNB and UE role and tasks in more detail (what AMF and gNB shall do and may do, what UE shall do). 3) Outline the options for how to map from CN assigned subgroup to L1-indicated subgroup.

Provision of assistance information is not included for now.

Intended outcome: Report

Deadline: Tuesday W2, for on-line CB.

W2 Tuesday On-Line

[R2-2109094](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109094.zip) [AT115-e][043][ePowSav] Paging Subgrouping (Nokia) Nokia (Rapporteur)

DISCUSSION

P1 P2

- Chair proposes to agree P2

- Intel think that Opt2 is an easy way to skip significant complexity, are ok with Option 1.

- Intel think that Opt3 was excluded at last meeting.

Option 3

- QC think this option is more complex than Option 1, not convinced that we need to re-hash group IDs, think that NR WUS will have sufficient number of L1 groups.

- Ericsson agrees and think NB-IoT solution is complex. Think that all details need to be rediscussed in any case, there is no straight reuse.

- Nokia disagrees that RAN has enough capacity, think there should be flexibility. Think also that Option 3 re-use closes many open issues.

- Sequans think that RAN should not have less groups than CN should have at least the same number of groups, so the diffence is not so big. Think most issues have now been discussed. If O3 is possible for NB-IoT it is also possible for NR, and could be interesting to have mure groups for RAN than for CN.

Ind SoH Preference (both allowed) Objection

- Opt 1 16 0

- Opt 3 9 Ericsson (complexity), Apple, Samsung

Option 1

- Sony think we still need some work with Option 1 as there are sub-options.

- vivo think the current Option 1 doesn’t reflect companies views. Companies don't want remapping, should change the second bullet to FFS.

P3

- Ericsson think RAN doesn’t need to remap. RAN should be able to support the CN number of subgroups, and think that both resource and code points can be used for RAN so ther eis no need to do remapping.

- QC agree with Ericsson, RAN can follow CN subgroups. Vivo, Apple, Intel support this as well. Sequans, Samsung, ZTE, ok with a4.

- LG think a4 is the best for complexity.

- MTK think that we need to handle the case that CN doesn’t assign subgroup?

- CATT think each cell should choose the number of subgropus it supports. But think the remapping can be very simple.

- Chair proposes a4

- CATT think the coordination between RAN and CN brings complexity. Nokia, Sony Huawei Xiaomi agrees.

- Sony think that anyway a conversion is needed, even if we have the same number of groups.

- Xiaomi think that we may anyway need to use UD-ID for some resources.

- FW think that we should change “NW” to “CN”.

P7

- QC object to this proposal. Apple also prefer separate.

* Option 2 is excluded
* We go with Option 1
* R2 assumes that All the cells within the registration area supports the same number of CN assigned subgroups, i.e. no remapping of CN assigned group ID to RAN subgroup ID (will revisit only if serious issues are found).
* For the purpose of continued discussions, R2 assumes that UE has separate UE caps for CN assigned and UEID based subgrouping, the actual decision to be taken later.
* RAN capability is known based on broadcast information. FFS with explicit indication or implicitly based configuration.

FFS how to reuse the MSC for e.g. stage-2 CR, in a post-email discussion.

[R2-2107549](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107549.zip) Further considerations on Network assigned subgrouping Intel Corporation discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2108027](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108027.zip) Further discussion on paging subgrouping Huawei, HiSilicon discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2108011](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108011.zip) CN and RAN responsibility split for paging subgrouping Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core Revised

[R2-2108592](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108592.zip) CN and RAN responsibility split for paging subgrouping Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core [R2-2108011](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108011.zip)

Moved Here

[R2-2108686](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108686.zip) Further Consideration on Paging Subgroup CATT discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2106998](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106998.zip) Further details of UE Subgrouping Samsung Electronics Co., Ltd discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2107067](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107067.zip) Discussion on grouping-based paging OPPO discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2107068](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107068.zip) Discussion on UE paging capabilities OPPO discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2107222](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107222.zip) Paging subgroup assignment Qualcomm Incorporated discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2107385](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107385.zip) The architecture of paging enhancement Xiaomi Communications discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2107406](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107406.zip) Architecture for paging enhancement by UE subgrouping vivo discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2107721](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107721.zip) Further discussion on CN-assigned paging grouping Transsion Holdings discussion

Moved here

[R2-2107902](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107902.zip) Consideration on Idle/inactive-mode UE power saving Lenovo, Motorola Mobility discussion Rel-17

[R2-2108028](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108028.zip) Discussion on paging subgrouping supporting on UE and network Huawei, HiSilicon discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2107880](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107880.zip) UE ID based subgroup LG Electronics Inc. discussion Rel-17

[R2-2108237](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108237.zip) Grouping methods for Paging Ericsson discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2108461](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108461.zip) Handling network nodes not supporting UE paging subgrouping Futurewei Technologies discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2108590](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108590.zip) UE Paging Subgroup Assignment MediaTek Inc. discussion

* [043] 18 tdocs above are Noted

#### 8.9.2.2 Control and Procedure details

Further Aspects e.g. on How a UE determines which radio resource(s) to monitor for paging purposes, which configurations are used, etc.

PEI

[R2-2108238](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108238.zip) PEI monitoring in NR: CN and System level impacts Ericsson discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

Moved here

[R2-2108012](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108012.zip) Subgroup indication via PEI Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

Moved here

[R2-2107069](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107069.zip) Discussion on PEI monitoring OPPO discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2107538](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107538.zip) How a UE determines the PEI radio resource(s) to monitor for paging Xiaomi Communications discussion

[R2-2108593](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108593.zip) Paging Monitoring with PEI and UE Subgrouping MediaTek Inc. discussion

[R2-2107881](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107881.zip) Paging subgroup indication LG Electronics Inc. discussion Rel-17

Cross-Slot Scheduling

[R2-2107223](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107223.zip) Paging reception with cross-slot scheduling Qualcomm Incorporated discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

Subgrouping

[R2-2107407](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107407.zip) UE subgrouping procedure for paging enhancement vivo discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2107553](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107553.zip) Further considerations on the UE behaviour for Network assigned subgrouping Intel Corporation discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2107595](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107595.zip) Signallaing aspects of IDLE/INACTIVE paging subgrouping for enhanced power save Apple discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2107879](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107879.zip) NW assigned subgroup LG Electronics Inc. discussion Rel-17

[R2-2107903](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107903.zip) Consideration on the configuration for UE paging grouping Lenovo, Motorola Mobility discussion Rel-17

[R2-2108272](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108272.zip) Further Consideration on NW assigned subgrouping and UE ID based grouping ZTE Corporation discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2108534](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108534.zip) Considerations on assistance information and procedures for paging subgrouping CMCC discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2106999](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106999.zip) UE Idenity for paging subgrouping Samsung Electronics Co., Ltd discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

Other Paging Enh

[R2-2108029](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108029.zip) Further considerations on other paging enhancements Huawei, HiSilicon discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2107000](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107000.zip) DRX cycle for monitoring paging Samsung Electronics Co., Ltd discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

### 8.9.3 Other aspects RAN2 impacts

e.g. TRS/CSI-RS for idle/inactive-mode UE

* [AT115-e][044][ePowSav] TRS CSIRS for RRC Idle and Inactive (Ericsson)

Scope: Treat R2-2109037. Attempt Agreements based on the proposals in the summary.

Intended outcome: Agreements, Report

Deadline: Tuesday W2 (CB only if needed).

TRS CSIRS for RRC Idle and Inactive

[R2-2109072](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109072.zip) Report from [AT115-e][044][ePowSav] TRS CSIRS for RRC Idle and Inactive (Ericsson) Ericsson

DISCUSSION

P2

- Xiaomi wonder what dedicated signaling woud be used for, and what would be the UEs behaivour when UE receives both dedicated and bcast signaling.

- Chair proposes to address this at later meeting if needed.

P5

- Ericsson indicates that the RAN2 to discuss if part is an error and shall be removed from the proposal.

General

- Sony wonder if R1 october meeting will produce output that we need. Chair think yes, RRC parameter lists will be produced by R1

* The TRS/CSI-RS configuration is provided in a new SIB.
* RAN2 assumes that TRS/CSI-RS configurations are broadcasted. Potential addition of dedicated signalling can be discussed in a later meeting based on company contributions.
* The legacy SI update procedure is used for changing TRS/CSI-RS configurations.
* Postpone the topic about TRS/CSI-RS availability until a later meeting when RAN1 also has progressed.
* On demand SI should be possible for the SIB with TRS/CSI-RS information.
* Postpone the discussion on segmentation of the new SIB until RAN1 has sent the list of the parameters and a potential structure.
* Postpone the discussion on splitting the TRS/CSI-RS information to a common and RS-specific part until RAN1 has sent the list of the parameters and a potential structure.

[R2-2109037](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109037.zip) [Pre115-e][006][ePowSav] Summary 8.9.3 TRS CSIRS for RRC Idle and Inactive Ericsson

[R2-2108239](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108239.zip) Provision of TRS Configurations to UEs in idle and inactive Ericsson discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2107001](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107001.zip) TRS\_CSIRS for RRC IDLE and RRC INACTIVE Samsung Electronics Co., Ltd discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2107070](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107070.zip) Discussion on signaling aspects of TRS/CSI-RS occasion(s) for idle/inactive Ues OPPO discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2107408](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107408.zip) Discussion on TRS CSI-RS in idle inactive mode vivo discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2107536](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107536.zip) Discussion on TRS CSI-RS for RRC-IDLE and RRC-INACTIVE State UE Xiaomi Communications discussion

[R2-2107537](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107537.zip) LS to RAN1 on TRS CSI-RS for RRC-IDLE and RRC-INACTIVE State UE Xiaomi Communications LS out Rel-17 NR\_UE\_pow\_sav\_enh To:RAN1

[R2-2107550](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107550.zip) TRS/CSI-RS configuration and availability for idle/inactive-mode UE Intel Corporation discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2107596](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107596.zip) TRS/CSI-RS signalling aspects for IDLE/INACTIVE UEs for enhanced power save Apple discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2107901](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107901.zip) TRS/CSI-RS configuration for Idle/inactive mode UE Lenovo, Motorola Mobility discussion Rel-17

[R2-2108030](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108030.zip) Discussion on potential TRS/CSI-RS Huawei, HiSilicon discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2108063](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108063.zip) Discussion on TRS/CSI-RS configuration of idle/inactive-mode UEs Sony discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core R2-2103596

[R2-2108240](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108240.zip) TRS Availability Signaling to UEs in idle and inactive Ericsson discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2108263](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108263.zip) Potential TRS/CSI-RS occasion(s) Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2108271](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108271.zip) Further Consideration On TRS and CSI-RS for idle and inactive UE ZTE Corporation discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2108535](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108535.zip) Considerations on TRS/CSI-RS occasion(s) for idle/inactive UE(s) CMCC discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

[R2-2108687](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108687.zip) Further Consideration on Configuration of TRS/CRI-RS CATT discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

* [006][044] 17 tdocs above are Noted

Connected mode

[R2-2108013](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108013.zip) RAN2 impact on connected mode power saving Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

Not treated

[R2-2107409](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107409.zip) RAN2 impact on RLM/BFD relaxation for power saving vivo discussion Rel-17 NR\_UE\_pow\_sav\_enh-Core

## 8.10 NR Non-Terrestrial Networks (NTN)

(NR\_NTN\_solutions-Core; leading WG: RAN2; REL-17; WID: RP-211557)

Time budget: 1.5 TU

Tdoc Limitation: 5 tdocs

Email max expectation: 5 threads

### 8.10.1 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.

[R2-2106966](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106966.zip) LS Response to LS on multiple TACs per PLMN (S2-2104891; contact: Qualcomm) SA2 LS in Rel-17 5GSAT\_ARCH To:RAN2, CT1 Cc:RAN3

Moved from 8.22 to 8.10

[R2-2106904](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106904.zip) LS reply on multiple TACs per PLMN (C1-213965; contact: Nokia) CT1 LS in Rel-17 5GSAT\_ARCH-CT, NR\_NTN\_solutions-Core To:RAN2, SA2 Cc:RAN3

[R2-2106922](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106922.zip) Reply LS on PDB for new 5QI (R1-2106331; contact: Ericsson) RAN1 LS in Rel-17 5GSAT\_ARCH, NR\_NTN\_solutions-Core To:SA2 Cc:RAN2, RAN3

[R2-2106924](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106924.zip) Reply LS on TA pre-compensation (R1-2106341; contact: OPPO) RAN1 LS in Rel-17 NR\_NTN\_solutions-Core To:RAN2

[R2-2106940](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106940.zip) Reply LS on SA WG2 assumptions from conclusion of study on architecture aspects for using satellite access in 5G (R3-212916; contact: Ericsson) RAN3 LS in Rel-17 NR\_NTN\_solutions-Core To:RAN2, SA2 Cc:SA3-LI, SA5

[R2-2106941](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106941.zip) Reply LS on UE location aspects in NTN (R3-212917; contact: Qualcomm) RAN3 LS in Rel-17 NR\_NTN\_solutions-Core, 5GSAT\_ARCH To:RAN2, SA2, SA3-LI, SA3, CT1

[R2-2106976](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106976.zip) Reply LS on UE location aspects in NTN (S3-212306; contact: Huawei) SA3 LS in Rel-17 NR\_NTN\_solutions-Core, 5GSAT\_ARCH To:RAN2, SA2, SA3-LI, RAN3 Cc:CT1

[R2-2107146](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107146.zip) Updated NR-NTN-solutions work plan THALES Work Plan Rel-17 NR\_NTN\_solutions

[R2-2107523](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107523.zip) Draft Response LS on Multiple TACs per PLMN Nokia, Nokia Shanghai Bell LS out Rel-17 NR\_NTN\_solutions-Core To:CT1, SA2 Cc:RAN3

[R2-2107568](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107568.zip) [Draft] Reply LS on UE location aspects in NTN Qualcomm Incorporated LS out Rel-17 NR\_NTN\_solutions-Core, 5GSAT\_ARCH To:RAN3 Cc:SA2, CT1

[R2-2107732](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107732.zip) Stage-3 running 304 CR for NTN ZTE corporation, Sanechips draftCR Rel-17 38.304 16.5.0 B NR\_NTN\_solutions-Core

[R2-2108345](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108345.zip) Stage-3 running RRC CR for NTN Rel-17 Ericsson draftCR Rel-17 38.331 16.5.0 NR\_NTN\_solutions-Core

[R2-2108664](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108664.zip) Stage 3 NTN running CR for 38.321 - RAN2#115 InterDigital draftCR Rel-17 38.321 16.5.0 NR\_NTN\_solutions-Core

R2-2108829 Stg 2 Running CR\_38.300\_NR-NTN THALES draftCR Rel-17 38.300 16.6.0 NR\_NTN\_solutions R2-2106539 Late

### 8.10.2 User Plane

[R2-2107280](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107280.zip) User Plane Issues and Enhancements for an NTN Samsung Research America discussion

[R2-2108663](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108663.zip) MAC open issues in NTN - RAN2#115 InterDigital discussion Rel-17 NR\_NTN\_solutions-Core

#### 8.10.2.1 RACH aspects

[R2-2107075](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107075.zip) Discussion on RACH in NTN OPPO discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2107314](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107314.zip) Discussion on UE Specific TA Report CATT discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2107362](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107362.zip) TA report in Random access procedure Spreadtrum Communications discussion Rel-17

[R2-2107908](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107908.zip) Considerations on new criteria for RA type selection Lenovo, Motorola Mobility discussion Rel-17

[R2-2107972](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107972.zip) RACH Type selection and TA report Beijing Xiaomi Mobile Software discussion Rel-17

[R2-2108114](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108114.zip) Further discussion on RACH issues for NR NTN Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2108350](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108350.zip) Considerations on RACH aspects ZTE Corporation, Sanechips discussion Rel-17

[R2-2108453](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108453.zip) Random Access timers and reporting information about UE specific TA pre-compensation in NTNs Ericsson discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2108609](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108609.zip) Discussion on RACH and TA report aspects LG Electronics Inc. discussion NR\_NTN\_solutions-Core

[R2-2108715](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108715.zip) Discussion on LCH-based RA type selection ASUSTeK discussion Rel-17 NR\_NTN\_solutions-Core R2-2105381

#### 8.10.2.2 Other MAC aspects

The discussion will focus on possible different behaviours per UL HARQ process, including possible LCP restrictions.

[R2-2107076](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107076.zip) Discussion on UL HARQ retransmission in NTN OPPO discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2107315](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107315.zip) Discussion on HARQ Aspects and UL Scheduling Enhancement in NTN CATT discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2107361](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107361.zip) Discussion on HARQ and LCP remaining issues Spreadtrum Communications discussion Rel-17

[R2-2107449](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107449.zip) Impact on DRX timers with UL/DL HARQ enhancement in NTN vivo discussion

[R2-2107450](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107450.zip) Impact on LCP with disabled UL HARQ retransmission in NTN vivo discussion

[R2-2107563](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107563.zip) LCP restriction for an UL HARQ process Qualcomm Incorporated, Huawei, HiSilicon, Xiaomi, Samsung discussion Rel-17 NR\_NTN\_solutions-Core R2-2105431

[R2-2107632](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107632.zip) HARQ Management and LCP Restrictions in NTN Apple discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2107790](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107790.zip) Co-existence issue of BSR over CG and BSR over 2-step RACH PANASONIC R&D Center Germany discussion R2-2105498

[R2-2107909](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107909.zip) BSR with configured 2-step RACH and CG Lenovo, Motorola Mobility discussion Rel-17

[R2-2107986](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107986.zip) Consideration on HARQ aspects Beijing Xiaomi Mobile Software discussion Rel-17

[R2-2108115](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108115.zip) Discussion on remaining MAC issues for NR NTN Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2108318](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108318.zip) On disabling uplink HARQ retransmission and associated LCP impacts MediaTek Inc. discussion R2-2105250

[R2-2108319](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108319.zip) Round trip delay offset for configured grant timer MediaTek Inc. discussion

[R2-2108351](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108351.zip) Considerations on HARQ aspects ZTE Corporation, Sanechips discussion Rel-17

[R2-2108452](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108452.zip) On DRX, LCP, HARQ, SR/BSR, and configured scheduling Ericsson discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2108544](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108544.zip) Discussion on LCP Restrictions and CG Impact in NTN CMCC discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2108608](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108608.zip) Discussion on other MAC aspects LG Electronics Inc. discussion NR\_NTN\_solutions-Core

[R2-2108610](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108610.zip) Consideration on LCP in NTN Huawei, HiSilicon discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2108611](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108611.zip) Discussion on TA report Huawei, HiSilicon discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2108661](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108661.zip) UL HARQ retransmission InterDigital discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2108662](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108662.zip) Impact of UE-gNB RTT determination on MAC InterDigital discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2108716](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108716.zip) Discussion on UL retransmission and DRX RTT timer ASUSTeK discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2108768](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108768.zip) HARQ Retransmission Enabling/Disabling for CG aspects ITL discussion Rel-17

#### 8.10.2.3 RLC and PDCP aspects

[R2-2108317](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108317.zip) RLC and PDCP timers extension NEC Telecom MODUS Ltd. discussion R2-2106016

[R2-2108451](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108451.zip) On RLC and PDCP for NTNs Ericsson discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2108460](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108460.zip) On RLC t-Reassembly for NTN Sequans Communications discussion Rel-17 NR\_NTN\_solutions-Core R2-2106055

### 8.10.3 Control Plane

[R2-2107630](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107630.zip) On NTN Ephemeris Definitions and Signaling Apple discussion Rel-17 NR\_NTN\_solutions-Core

#### 8.10.3.1General aspects

Including Earth fixed/moving beams related issues, TAC update and LCS aspects

[R2-2107077](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107077.zip) Discussion on UE location aspects in NTN OPPO discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2107131](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107131.zip) Signalling Solution for Feeder Link Switching of NTN VODAFONE Group Plc discussion

[R2-2107150](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107150.zip) Virtual cells for network verified UE position in NTN networks Fraunhofer IIS; Fraunhofer HHI; Thales discussion

[R2-2107281](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107281.zip) Remaining Beam Issues in an NTN: Tracking Area Management and Elliptical Beams Samsung Research America discussion

[R2-2107284](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107284.zip) Area Management in an NTN Samsung Research America, Thales, Rakuten Mobile, and Apple discussion R2-2106072

[R2-2107316](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107316.zip) Further Discussion on LCS and TAC aspects in NTN CATT discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2107343](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107343.zip) Discussion on V2X-like zone ID Huawei, HiSilicon discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2107345](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107345.zip) Draft Reply LS on multiple TACs per PLMN Huawei, HiSilicon LS out Rel-17 NR\_NTN\_solutions-Core To:CT1 Cc:SA2, RAN3

[R2-2107346](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107346.zip) Draft Reply LS on UE location aspects in NTN Huawei, HiSilicon LS out Rel-17 NR\_NTN\_solutions-Core To:SA3 Cc:CT1, SA2, SA3-LI, RAN3

[R2-2107359](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107359.zip) Discussion on stop serving time of NTN cell Spreadtrum Communications discussion Rel-17

[R2-2107360](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107360.zip) Discussion on TAC update in NTN Spreadtrum Communications discussion Rel-17

[R2-2107520](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107520.zip) On Tracking Area Code handling for NTN Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2107564](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107564.zip) Tracking area update timing Qualcomm Incorporated discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2107567](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107567.zip) Discussion on RAN3 LS reply on UE location Qualcomm Incorporated discussion Rel-17 NR\_NTN\_solutions-Core

R2-2107633 NTN Area Management Apple discussion Rel-17 NR\_NTN\_solutions-Core Withdrawn

[R2-2107729](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107729.zip) Discussion on the remaining issue on TAC update vivo discussion

[R2-2108100](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108100.zip) Service continuity between NTN and TN Turkcell, Hughes/EchoStar, Network Systems, Thales, BT Plc, Vodafone, ESA, Inmarsat, Aselsan discussion Rel-17

[R2-2108235](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108235.zip) NTN Neighbour Cell information NEC Telecom MODUS Ltd. discussion

[R2-2108323](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108323.zip) On Soft-switch based Tracking Area Updates in NR-NTN MediaTek Inc. discussion R2-2105252

[R2-2108606](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108606.zip) TAC update and UE location report ZTE corporation, Sanechips discussion Rel-17 NR\_NTN\_solutions-Core

#### 8.10.3.2 Idle/Inactive mode

Idle/inactive mode specific issues.

[R2-2107078](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107078.zip) Discussion on idle/inactive mode procedures in NTN OPPO discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2107282](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107282.zip) Cell Reselection, System Information, Paging Enhancements, and Power-Efficient Neighbor Cell Search for an NTN Samsung Research America discussion

[R2-2107317](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107317.zip) Further Discussion on the Leftover Issues of IDLE/INACTIVE CATT discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2107344](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107344.zip) Discussion on cell reselection Huawei, HiSilicon discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2107448](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107448.zip) Remaining issues on cell reselection for NTN vivo discussion

[R2-2107521](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107521.zip) Further views on SMTC configurations for NTN Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_NTN\_solutions-Core R2-2105000

[R2-2107634](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107634.zip) Cell Selection and Cell Reselection Solutions for Non Terrestrial Networks Apple discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2107733](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107733.zip) Further consideration on cell selection and reselection in NTN ZTE corporation, Sanechips discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2107845](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107845.zip) Remaining issues in NTN Idle mode LG Electronics Inc. discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2107853](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107853.zip) Issues of cell reselection for prioritizing TN over NTN ITRI discussion NR\_NTN\_solutions-Core

[R2-2107910](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107910.zip) Considerations on ephemeris provision for NTN Lenovo, Motorola Mobility discussion Rel-17

[R2-2108064](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108064.zip) Idle mode enhancement in NTN Sony discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2108170](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108170.zip) Cell selection and reselection enhancements for NTN Xiaomi discussion

[R2-2108234](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108234.zip) NTN to TN mobility in Idle/Inactive mode NEC Telecom MODUS Ltd. discussion

[R2-2108281](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108281.zip) Idle mode aspects for NTN Ericsson discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2108320](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108320.zip) On Cell Re-selection in NR-NTN MediaTek Inc. discussion R2-2105251

[R2-2108412](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108412.zip) NTN type and scenario indication Convida Wireless discussion

[R2-2108413](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108413.zip) NTN Cell (re)selection enhancements Convida Wireless discussion

[R2-2108526](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108526.zip) Discussion on location assisted cell reselection CMCC, Huawei, HiSilicon discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2108779](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108779.zip) NTN Idle/Inactive mode cell re-selection ITL discussion Rel-17

#### 8.10.3.3 Connected mode

Connected mode specific issues.

[R2-2107079](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107079.zip) Discussion on mobility management for connected mode UE in NTN OPPO discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2107283](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107283.zip) Remaining Issues on Handover and Neighbor Search for an NTN Samsung Research America discussion R2-2106071

[R2-2107318](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107318.zip) Discussion on NTN CP left issues CATT discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2107447](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107447.zip) Discussion on CHO related aspects for NTN vivo discussion

[R2-2107457](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107457.zip) Consideration of location reporting in NTN CHO China Telecommunication discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2107519](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107519.zip) Further discussion on CHO in NTN Rakuten Mobile, Inc discussion Rel-17

[R2-2107522](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107522.zip) Even further thoughts on mobility in NTN Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2107565](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107565.zip) Open issues in CHO Qualcomm Incorporated discussion Rel-17 NR\_NTN\_solutions-Core R2-2105433

[R2-2107566](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107566.zip) SMTC and MG enhancements Qualcomm Incorporated discussion Rel-17 NR\_NTN\_solutions-Core R2-2105434

[R2-2107631](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107631.zip) On NTN Conditional Handovers Apple discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2107704](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107704.zip) Discussion on NTN-TN service continuity KT Corp. discussion

[R2-2107846](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107846.zip) Remaining issues for NTN connected mode mobility LG Electronics Inc. discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2107878](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107878.zip) Measurement window enhancements for NTN cell LG Electronics Inc. discussion Rel-17

[R2-2107911](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107911.zip) UE assistance for measurement gap and SMTC configuration in NTN Lenovo, Motorola Mobility discussion Rel-17

[R2-2107912](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107912.zip) Execution condition for CHO in NTN Lenovo, Motorola Mobility discussion Rel-17

[R2-2107987](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107987.zip) Consideration on RRC release Beijing Xiaomi Mobile Software discussion Rel-17

[R2-2108017](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108017.zip) Discussion on connected mode aspects for NTN Xiaomi Communications discussion

[R2-2108065](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108065.zip) Signaling storm during HOs and Timer based trigger details Sony discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2108066](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108066.zip) Cell coverage spillage over multiple countries issue in NTN Sony discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2108067](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108067.zip) SMTC enhancement in NTN Sony discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2108198](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108198.zip) Discussion on UE feedback based SMTC and GAPS measurement configuration Rakuten Mobile, Inc discussion Rel-17 R2-2105389

[R2-2108286](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108286.zip) Remaining Issues on SMTC and measurement Gap configuration for NTN CMCC,Ericsson,ZTE Corporation,Huawei,CATT,Lenovo, Motorola Mobility discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2108326](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108326.zip) Efficient Configuration of SMTC and Measurement Gaps in NR-NTN MediaTek Inc. discussion

[R2-2108329](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108329.zip) Mobility for NTN-TN scenarios MediaTek Inc. discussion R2-2105253

[R2-2108341](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108341.zip) Connected mode aspects for NTN Ericsson discussion NR\_NTN\_solutions-Core

[R2-2108527](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108527.zip) Signaling overhead reduction for connected mobility CMCC discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2108528](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108528.zip) Discussion on NTN-TN mobility CMCC discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2108607](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108607.zip) Further consideration on CHO in NTN ZTE corporation, Sanechips discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2108717](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108717.zip) Discussion on location-based measurement event triggering ASUSTeK discussion Rel-17 NR\_NTN\_solutions-Core

## 8.11 NR positioning enhancements

(NR\_pos\_enh-Core; leading WG: RAN1; REL-17; WID: RP-210903)

Time budget: 2 TU

Tdoc Limitation: 7 tdocs

Email max expectation: 7 threads

### 8.11.1 Organizational

Rapporteur input. Incoming LS etc. This AI is reserved for rapporteur and organizational inputs; documents in this AI do not count towards the tdoc limitation.

[R2-2106913](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106913.zip) LS on support of UL-AOA/ZOA assistance information signalling for NR positioning (R1-2106202; contact: Intel) RAN1 LS in Rel-17 NR\_pos\_enh-Core To:RAN3 Cc:RAN2

[R2-2106918](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106918.zip) Reply LS to SA2 on Scheduling Location in Advance (R1-2106312; contact: Qualcomm) RAN1 LS in Rel-17 NR\_pos\_enh To:SA2 Cc:RAN2, RAN3

[R2-2106919](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106919.zip) LS on granularity of response time (R1-2106316; contact: Huawei) RAN1 LS in Rel-17 NR\_pos\_enh To:RAN2

[R2-2106920](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106920.zip) LS on Positioning Reference Units (PRUs) for enhancing positioning performance (R1-2106326; contact: CATT) RAN1 LS in Rel-17 NR\_pos\_enh To:RAN2, RAN3 Cc:SA2

[R2-2106968](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106968.zip) Response LS on Scheduling Location in Advance to reduce Latency (S2-2105122; contact: CATT) SA2 LS in Rel-17 5G\_eLCS\_ph2 To:RAN2 Cc:RAN1, RAN3

[R2-2106969](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106969.zip) LS on determination of location estimates in local co-ordinates (S2-2105124; contact: Ericsson) SA2 LS in Rel-17 5G\_eLCS\_ph2 To:RAN1, RAN2, RAN3

[R2-2106971](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106971.zip) LS on storage of UE Positioning Capabilities (S2-2105153; contact: Qualcomm) SA2 LS in Rel-17 5G\_eLCS\_ph2 To:RAN2 Cc:RAN3

[R2-2107133](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107133.zip) Draft Response LS to SA2 on the scheduled location time CATT LS out Rel-17 NR\_pos\_enh-Core To:SA2 Cc:RAN1, RAN3

[R2-2107144](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107144.zip) Draft Response LS to RAN1 on the Positioning Reference Units (PRUs) for positioning enhancement CATT LS out Rel-17 NR\_pos\_enh-Core To:RAN1 Cc:RAN3

[R2-2107674](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107674.zip) Consideration on stage 2 structure on RAT dependent positioning Intel Corporation discussion Rel-17 NR\_pos\_enh

[R2-2108401](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108401.zip) Local Co-ordinates support for Positioning methods Ericsson discussion

[R2-2108402](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108402.zip) [Draft] Reply LS on determination of location estimates in local co-ordinates Ericsson LS out To:SA2 Cc:RAN1, RAN3

### 8.11.2 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. This agenda item will utilise a summary document.

[R2-2107090](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107090.zip) Discussion on positioning latency reduction ZTE discussion

[R2-2107091](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107091.zip) Discussion on scheduled location time ZTE discussion

[R2-2107132](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107132.zip) Discussion on Response LS on Scheduling Location in Advance to reduce Latency from SA2 CATT discussion Rel-17 NR\_pos\_enh-Core

[R2-2107134](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107134.zip) Discussion on Enhancements for Latency Reduction CATT discussion Rel-17 NR\_pos\_enh-Core

[R2-2107135](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107135.zip) Discussion on storage of UE Positioning Capabilities LS from SA2 and the granularity of response time LS from RAN1 CATT discussion Rel-17 NR\_pos\_enh-Core

[R2-2107399](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107399.zip) Further consideration of positioning latency enhancements OPPO discussion Rel-17 NR\_pos\_enh-Core

[R2-2107500](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107500.zip) Discussion on positioning latency Huawei, HiSilicon discussion Rel-17 NR\_pos\_enh-Core

[R2-2107641](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107641.zip) Discussion on latency enhancement vivo discussion Rel-17 NR\_pos\_enh-Core

[R2-2107642](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107642.zip) Discussion on Scheduling Location in Advance to reduce Latency vivo discussion Rel-17 NR\_pos\_enh-Core

[R2-2107670](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107670.zip) Scheduled location time based latency reduction Intel Corporation discussion Rel-17 NR\_pos\_enh

[R2-2107673](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107673.zip) Storing UE positioning capability in AMF Intel Corporation discussion Rel-17 NR\_pos\_enh

R2-2107680 "Summary of agenda 8.11.2 Latency enhancements" Intel Corporation discussion Rel-17 NR\_pos\_enh Late

[R2-2107681](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107681.zip) Discussion on Enhancements for Latency Reduction InterDigital, Inc. discussion Rel-17 NR\_pos\_enh

[R2-2107962](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107962.zip) Discussion on the response time Samsung discussion Rel-17

[R2-2108127](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108127.zip) Positioning Latency Reduction Enhancements Lenovo, Motorola Mobility discussion Rel-17

[R2-2108175](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108175.zip) Positioning enhancements on latency reduction Xiaomi discussion

[R2-2108367](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108367.zip) Scheduling Location in Advance to Reduce Latency Qualcomm Incorporated discussion

[R2-2108376](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108376.zip) [draft] Response LS on Scheduling Location in Advance to reduce Latency Qualcomm Incorporated LS out Rel-17 FS\_NR\_pos\_enh To:SA2 Cc:RAN1, RAN3

[R2-2108377](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108377.zip) LPP impacts for UE positioning capability storage Qualcomm Incorporated discussion

[R2-2108378](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108378.zip) [draft] Response LS on storage of UE Positioning Capabilities Qualcomm Incorporated LS out Rel-17 To:SA2 Cc:RAN3

[R2-2108393](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108393.zip) Utilizing Time T and other associated parameters Ericsson discussion

[R2-2108397](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108397.zip) On UE Positioning Capabilities Ericsson discussion

[R2-2108536](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108536.zip) Discussion on latency reduction for positioning CMCC discussion Rel-17 NR\_pos\_enh-Core

[R2-2108704](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108704.zip) Enhancement to reduce latency for high volume positioning Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_pos\_enh-Core

[R2-2108769](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108769.zip) Handling of multiple QoS for latency reduction Samsung Electronics discussion NR\_pos\_enh-Core

[R2-2108771](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108771.zip) Latency reduction via configured grant for positioning Samsung Electronics discussion NR\_pos\_enh-Core

[R2-2108773](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108773.zip) Discussion on the scheduled location time Samsung Electronics discussion NR\_pos\_enh-Core

### 8.11.3 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. This agenda item will utilise a summary document.

Including outcome of [Post114-e][602][POS] Stage 2 procedure for deferred MT-LR in RRC\_INACTIVE (Qualcomm)

[R2-2107092](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107092.zip) Discussion on positioning in RRC INACTIVE state ZTE discussion

[R2-2107093](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107093.zip) Stage 2 procedures for positioning in RRC INACTIVE state ZTE discussion

[R2-2107142](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107142.zip) Discussion on Positioning for UEs in RRC\_INACTIVE state CATT discussion Rel-17 NR\_pos\_enh-Core

[R2-2107149](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107149.zip) Considerations on positioning in RRC\_INACTIVE mode Fraunhofer IIS; Fraunhofer HHI discussion

[R2-2107358](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107358.zip) Discussion on positioning in RRC\_INACTIVE state Spreadtrum Communications discussion Rel-17

[R2-2107502](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107502.zip) [DRAFT] LS on positioning for the UE in RRC\_INACTIVE Huawei, HiSilicon LS out Rel-17 NR\_pos\_enh-Core To:SA2

[R2-2107639](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107639.zip) Positioning procedures in RRC\_INACTIVE (stage-2) Apple discussion Rel-17 NR\_pos\_enh-Core

[R2-2107643](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107643.zip) Enhancement of DL positioning in RRC\_INACTIVE vivo discussion Rel-17 NR\_pos\_enh-Core

[R2-2107644](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107644.zip) Configuration of UL positioning in RRC\_INACTIVE vivo discussion Rel-17 NR\_pos\_enh-Core

[R2-2107671](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107671.zip) Support of Positioning in RRC\_INACTIVE Intel Corporation discussion Rel-17 NR\_pos\_enh

[R2-2107683](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107683.zip) Discussion on Positioning in RRC INACTIVE state InterDigital, Inc. discussion Rel-17 NR\_pos\_enh

[R2-2107684](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107684.zip) Discussion on reporting of Positioning Information with SDT InterDigital, Inc. discussion Rel-17 NR\_pos\_enh

[R2-2107829](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107829.zip) Supporting positioning in RRC\_INACTIVE state OPPO discussion Rel-17 NR\_pos\_enh-Core

[R2-2107830](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107830.zip) Discussion on UL Positioning methods in RRC\_INACTIVE state OPPO discussion Rel-17 NR\_pos\_enh-Core

[R2-2108068](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108068.zip) Considerations on positioning RRC Inactive Sony discussion Rel-17 NR\_pos\_enh-Core R2-2105703

[R2-2108128](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108128.zip) On Positioning in RRC\_INACTIVE state Lenovo, Motorola Mobility discussion Rel-17

[R2-2108173](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108173.zip) Discussion on positioning for UEs in RRC Inactive Xiaomi discussion

R2-2108383 Summary of [Post114-e][602][POS] Stage 2 procedure for deferred MT-LR in RRC\_INACTIVE Qualcomm Incorporated discussion Late

[R2-2108394](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108394.zip) Inactive mode Positioning Ericsson discussion

R2-2108605 Discussion on INACTIVE positioning Huawei, HiSilicon discussion Rel-17 NR\_pos\_enh-Core Late

[R2-2108703](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108703.zip) Considerations on positioning in RRC\_INACTIVE Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_pos\_enh-Core

R2-2108764 Considerations on Positioning in RRC\_INACTIVE state CMCC discussion Rel-17 NR\_pos\_enh-Core Late

[R2-2108772](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108772.zip) On message segmentation for transmitting in Inactive state Samsung Electronics discussion NR\_pos\_enh-Core

R2-2108826 Summary of AI 8.11.3 for RRC\_INACTIVE positioning ZTE discussion

### 8.11.4 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. This agenda item will utilise a summary document.

Including outcome of [Post114-e][603][POS] Procedures and signalling for on-demand PRS (Ericsson)

[R2-2107094](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107094.zip) Discussion on on-demand PRS ZTE discussion

[R2-2107148](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107148.zip) On-demand PRS Fraunhofer IIS, Fraunhofer HHI discussion Rel-17 R2-2105734

[R2-2107498](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107498.zip) Discussion on on-demand PRS Huawei, HiSilicon discussion Rel-17 NR\_pos\_enh-Core

[R2-2107638](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107638.zip) Remaining issues of On-Demand PRS Apple discussion Rel-17 NR\_pos\_enh-Core

[R2-2107645](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107645.zip) Discussion on on-demand PRS vivo discussion Rel-17 NR\_pos\_enh-Core

[R2-2107672](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107672.zip) Support of on-demand PRS request Intel Corporation discussion Rel-17 NR\_pos\_enh

[R2-2107686](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107686.zip) Discussion on procedures for On-demand PRS for DL-based positioning InterDigital, Inc. discussion Rel-17 NR\_pos\_enh

[R2-2107687](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107687.zip) Discussion on procedure for On-demand PRS for DL+UL based positioning InterDigital, Inc. discussion Rel-17 NR\_pos\_enh

[R2-2107828](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107828.zip) Discussion on on-demand DL-PRS OPPO discussion Rel-17 NR\_pos\_enh-Core

[R2-2108069](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108069.zip) Considerations on positioning PRS On-demand Sony discussion Rel-17 NR\_pos\_enh-Core R2-2105704

[R2-2108129](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108129.zip) Support of On-Demand DL-PRS Lenovo, Motorola Mobility discussion Rel-17

[R2-2108174](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108174.zip) Positioning enhancement to on-demand DL PRS Xiaomi discussion

[R2-2108384](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108384.zip) On-Demand DL-PRS Qualcomm Incorporated discussion

[R2-2108395](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108395.zip) On demand PRS Ericsson discussion R2-2105969

R2-2108400 Report on [Post114-e][603][POS] Procedures and signalling for on-demand PRS (Ericsson) Ericsson discussion Late

[R2-2108705](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108705.zip) NR E-CID for UE feedback for on-demand PRS Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_pos\_enh-Core

[R2-2108774](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108774.zip) Multiple QoS class using on-demand PRS Samsung Electronics discussion NR\_pos\_enh-Core

R2-2108827 Summary of Agenda Item 8.11.4 On-demand PRS CATT discussion Rel-17 NR\_pos\_enh-Core

### 8.11.5 GNSS positioning integrity

Signalling, and procedures to support GNSS positioning integrity determination. This agenda item will utilise a summary document.

Including outcome of [Post114-e][601][POS] GNSS integrity assistance information, KPIs, and reporting of integrity results (Swift)

[R2-2107095](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107095.zip) Discussion on positioning integrity ZTE discussion

[R2-2107136](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107136.zip) Discussion on Integrity KPIs impact and draft LS CATT discussion Rel-17 NR\_pos\_enh-Core

[R2-2107147](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107147.zip) UE-aided detection of threat to GNSS systems and assistance data signaling Fraunhofer IIS; Fraunhofer HHI; Ericsson discussion R2-2105735

[R2-2107398](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107398.zip) Discussion on supporting positioing integrity in RAN OPPO discussion Rel-17 NR\_pos\_enh-Core

[R2-2107499](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107499.zip) Discussion on positioning integrity Huawei, HiSilicon discussion Rel-17 NR\_pos\_enh-Core

[R2-2107503](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107503.zip) Text Proposal for GNSS integrity Huawei, HiSilicon discussion Rel-17 NR\_pos\_enh-Core

[R2-2107646](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107646.zip) Discussion on signalling and procedures for GNSS positioning integrity vivo discussion Rel-17 NR\_pos\_enh-Core

[R2-2107688](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107688.zip) Discussion on procedures and signalling for GNSS positioning integrity InterDigital, Inc. discussion Rel-17 NR\_pos\_enh

[R2-2107989](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107989.zip) Email Summary [Post114-e][601][POS] GNSS integrity assistance information, KPIs, and reporting of integrity results (Swift) Swift Navigation discussion

[R2-2108024](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108024.zip) Positioning Integrity Support in LPP Nokia, Nokia Shanghai Bell discussion Rel-17 FS\_NR\_pos\_enh

[R2-2108176](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108176.zip) Discussion on GNSS positioning integrity Xiaomi discussion

[R2-2108340](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108340.zip) Bounding GNSS errors for positioning integrity ESA, Nokia, Nokia Shanghai Bell discussion Rel-17 FS\_NR\_pos\_enh

[R2-2108385](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108385.zip) Considerations on GNSS positioning integrity support Qualcomm Incorporated discussion

[R2-2108396](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108396.zip) GNSS positioning integrity Ericsson discussion R2-2105970

[R2-2108474](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108474.zip) Discussion on GNSS Integrity Assistance Data Swift Navigation, Ericsson, Mitsubishi Electric Corporation discussion Rel-17

[R2-2108475](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108475.zip) Text Proposal on GNSS Integrity Assistance Data Swift Navigation, Ericsson, Mitsubishi Electric Corporation discussion Rel-17

[R2-2108770](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108770.zip) Consideration on the signalling design for Positioning Integrity Samsung Electronics discussion NR\_pos\_enh-Core

### 8.11.6 A-GNSS enhancements

Including support of BDS B2a and B3I signals and support of NavIC.

[R2-2107137](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107137.zip) Summary of Introduction of B3I signal in BDS system CATT, CAICT discussion Rel-17 NR\_pos\_enh-Core

[R2-2107138](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107138.zip) Introduction of B2a and B3I signal in BDS system in A-GNSS CATT, CAICT draftCR Rel-17 36.305 16.3.0 B NR\_pos\_enh-Core

[R2-2107139](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107139.zip) Introduction of B2a and B3I signal in BDS system in A-GNSS CATT, CAICT draftCR Rel-17 38.305 16.5.0 B NR\_pos\_enh-Core

[R2-2107140](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107140.zip) Introduction of B2a signal in BDS system in A-GNSS CATT, CAICT draftCR Rel-17 37.355 16.5.0 B NR\_pos\_enh-Core

[R2-2107141](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107141.zip) Introduction of B3I signal in BDS system in A-GNSS CATT, CAICT draftCR Rel-17 37.355 16.5.0 B NR\_pos\_enh-Core

[R2-2107990](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107990.zip) Text proposal on BDS ephemeris (B2I) Swift Navigation discussion

### 8.11.7 Other

Input on other WI objectives.

[R2-2107143](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107143.zip) Discussion on Positioning Reference Units (PRUs) for positioning enhancement CATT discussion Rel-17 NR\_pos\_enh-Core

[R2-2107357](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107357.zip) Discussion on PRU of positioning Spreadtrum Communications discussion Rel-17

[R2-2107501](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107501.zip) Discussion on positioning enhancement Huawei, HiSilicon discussion Rel-17 NR\_pos\_enh-Core

[R2-2107647](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107647.zip) Discussion on support for Positioning Reference Unit vivo discussion Rel-17 NR\_pos\_enh-Core

[R2-2107689](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107689.zip) Discussion on supporting Positioning Reference Units InterDigital, Inc. discussion Rel-17 NR\_pos\_enh

[R2-2107831](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107831.zip) Discussion on the Positioning Reference Units (PRUs) OPPO discussion Rel-17 NR\_pos\_enh-Core

[R2-2108131](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108131.zip) Support of Positioning Reference Units Lenovo, Motorola Mobility discussion Rel-17

[R2-2108386](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108386.zip) Signalling and Procedures for supporting Positioning Reference Units Qualcomm Incorporated discussion

[R2-2108398](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108398.zip) On the Positioning Reference Units aspects Ericsson discussion

[R2-2108399](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108399.zip) On high accuracy aspects Ericsson discussion

## 8.12 Reduced Capability

(NR\_redcap-Core; leading WG: RAN1; REL-17; WID: RP-211574)

Time budget: 1 TU

Tdoc Limitation: 4 tdocs

Email max expectation: 4 threads

### 8.12.1 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.

[R2-2106905](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106905.zip) Reply LS on introducing extended DRX for RedCap UEs (C1-213966; contact: Qualcomm) CT1 LS in Rel-17 NR\_redcap-Core To:RAN2 Cc:SA2, RAN3

[R2-2106921](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106921.zip) LS on RAN1 agreements on RAN2-led features for RedCap (R1-2106329; contact: NTT DOCOMO) RAN1 LS in Rel-17 NR\_redcap-Core To:RAN2

[R2-2106964](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106964.zip) Reply LS on Unified Access Control (UAC) for RedCap (S1-211363; contact: Huawei) SA1 LS in Rel-17 NR\_redcap To:RAN, CT1, RAN2

[R2-2108276](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108276.zip) Revised WI work plan for RedCap Ericsson discussion NR\_redcap-Core

[R2-2108277](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108277.zip) Running 38331 CR for RedCap Ericsson draftCR Rel-16 38.331 16.5.0 NR\_redcap-Core

[R2-2108411](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108411.zip) Running RedCap CR for 38.304 Ericsson draftCR Rel-17 38.304 16.5.0 B NR\_redcap

### 8.12.2 Framework for reduced capabilities

No contribution is expected to this agenda item but directly to the sub-agenda items.

#### 8.12.2.1 Definition of RedCap UE type and reduced capabilities

Including the outcome of [POST114-e][105][RedCap] Capabilities (Intel)

[R2-2107208](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107208.zip) Definition and reduced capabilities for RedCap UE Huawei, HiSilicon discussion Rel-17 NR\_redcap-Core

[R2-2107351](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107351.zip) Scaling factor for L2 buffer size reduction for Rel-17 RedCap Spreadtrum Communications discussion Rel-17

[R2-2107410](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107410.zip) UE type defination and constraining for RedCap UEs vivo, Guangdong Genius discussion Rel-17 FS\_NR\_redcap

[R2-2107608](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107608.zip) RRC Processing Delay and remaining RedCap UE capability aspects Apple discussion Rel-17 NR\_redcap-Core

[R2-2107676](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107676.zip) Email discussion report on [105][RedCap] Capabilities (Intel) Intel Corporation discussion Rel-17 NR\_redcap

[R2-2107677](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107677.zip) Constraining network access for UE with reduced capabilities Intel Corporation discussion Rel-17 NR\_redcap

[R2-2107749](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107749.zip) RedCap UE type and reduced capabilities ZTE Corporation, Sanechips discussion Rel-17 NR\_redcap-Core

[R2-2108278](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108278.zip) Definition of RedCap UE and discussion on capabilities Ericsson discussion NR\_redcap-Core

[R2-2108697](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108697.zip) Further discussions on Redcap UE capabilities CATT discussion Rel-17 NR\_redcap-Core

#### 8.12.2.2 Identification, access and camping restrictions

Early identification of RedCap UEs (e.g. need for/details of msg3 early identification). Common Aspects related to RACH partitioning (due to msg1 early identification) shall be submitted to 8.18.

System information indication for camping restrictions.

[R2-2107071](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107071.zip) Discussion on RedCap UE’s early identification OPPO discussion Rel-17 NR\_redcap-Core

[R2-2107072](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107072.zip) Discussion on RedCap UE’s access restrictions OPPO discussion Rel-17 NR\_redcap-Core

[R2-2107117](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107117.zip) NR-REDCAP access restriction/allowance indication to ease mobility THALES discussion

[R2-2107209](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107209.zip) Identification and access restriction of RedCap UE Huawei, HiSilicon discussion Rel-17 NR\_redcap-Core

[R2-2107216](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107216.zip) Access and camping restriction for RedCap UEs Qualcomm Incorporated discussion Rel-17 FS\_NR\_redcap

[R2-2107352](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107352.zip) Further discussion on early indication for RedCap UE Spreadtrum Communications discussion Rel-17

[R2-2107411](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107411.zip) Identification and access restrictions for RedCap UEs vivo, Guangdong Genius discussion Rel-17 FS\_NR\_redcap

[R2-2107535](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107535.zip) Discussion on Identification and UE access restrictions for Redcap devices Xiaomi Communications discussion

[R2-2107555](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107555.zip) Early identification and camping restrictions for RedCap UE Sierra Wireless, S.A. discussion

[R2-2107606](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107606.zip) Power-saving aspects from cell access and camping of RedCap UEs Apple discussion Rel-17 NR\_redcap-Core

[R2-2107607](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107607.zip) Issues with MSG3 based RedCap UE identification at intial access Apple discussion Rel-17 NR\_redcap-Core

[R2-2107652](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107652.zip) Camping restrictions of RedCap UE Fujitsu discussion Rel-17 NR\_redcap-Core R2-2105399

[R2-2107678](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107678.zip) Early identification and camping restrictions for RedCap UE Intel Corporation discussion Rel-17 NR\_redcap

[R2-2107707](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107707.zip) Identification and access restrictions for RedCap UEs LG Electronics UK discussion Rel-17

[R2-2107750](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107750.zip) Identification and Access Restriction for RedCap UEs ZTE Corporation, Sanechips discussion Rel-17 NR\_redcap-Core

[R2-2107783](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107783.zip) Access control for RedCap UEs Samsung discussion Rel-17 FS\_NR\_redcap

[R2-2107834](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107834.zip) Camping restrictions and IFRI for RedCap UE InterDigital, Europe, Ltd. discussion Rel-17

[R2-2107870](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107870.zip) Leftover issues on camping restriction and cell selection criterion DENSO CORPORATION discussion Rel-17 NR\_redcap-Core

[R2-2108136](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108136.zip) Further discussions on early identification and SI indication NEC discussion Rel-17 NR\_redcap-Core

[R2-2108137](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108137.zip) Initial BWP for RedCap NEC discussion Rel-17 NR\_redcap-Core

[R2-2108244](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108244.zip) Access for REDCAP UE Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_redcap-Core

[R2-2108245](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108245.zip) REDCAP UE early identification Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_redcap-Core

[R2-2108279](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108279.zip) Early indication & access restriction for RedCap UEs Ericsson discussion NR\_redcap-Core

[R2-2108463](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108463.zip) On Cell Barring Indication and Intra-Frequency Reselection Indication for RedCap UEs Futurewei Technologies discussion Rel-17 NR\_redcap-Core

[R2-2108524](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108524.zip) Discussion on identification and access restrictions CMCC discussion Rel-17 NR\_redcap-Core

[R2-2108628](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108628.zip) Access and camping restrictions for RedCap UE China Telecommunications discussion Rel-17

[R2-2108698](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108698.zip) Early Identification and Camping Restrictions for Redcap UEs CATT discussion Rel-17 NR\_redcap-Core

### 8.12.3 UE power saving and battery lifetime enhancement

No contribution is expected to this agenda item but directly to the sub-agenda items.

#### 8.12.3.1 eDRX cycles

Extended DRX enhancements for RRC Inactive and Idle.

[R2-2107073](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107073.zip) Discussion on eDRX for RedCap UEs OPPO discussion Rel-17 NR\_redcap-Core

[R2-2107096](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107096.zip) CN PTW and RAN PTW for RedCap eDRX Samsung discussion Rel-17

[R2-2107210](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107210.zip) eDRX for RedCap UE Huawei, HiSilicon discussion Rel-17 NR\_redcap-Core

[R2-2107217](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107217.zip) eDRX configurations for RedCap UEs Qualcomm Incorporated discussion Rel-17 FS\_NR\_redcap

[R2-2107412](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107412.zip) Discussion on eDRX for RedCap UEs vivo, Guangdong Genius discussion Rel-17 FS\_NR\_redcap

[R2-2107534](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107534.zip) Discussion on e-DRX for Redcap Devices Xiaomi Communications discussion

[R2-2107675](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107675.zip) Leftover issues for eDRX Intel Corporation discussion Rel-17 NR\_redcap

[R2-2107706](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107706.zip) Discussion on eDRX for RRC\_IDLE and RRC\_INACTIVE LG Electronics UK discussion Rel-17

[R2-2107751](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107751.zip) eDRX for RedCap UEs ZTE Corporation, Sanechips discussion Rel-17 NR\_redcap-Core

[R2-2107905](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107905.zip) Consideration on eDRX for RedCap UE Lenovo, Motorola Mobility discussion Rel-17

[R2-2108230](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108230.zip) Remaining issues for eDRX MediaTek Inc. discussion Rel-17 NR\_redcap-Core R2-2105671

[R2-2108280](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108280.zip) Details of eDRX and PTW in RRC\_IDLE and RRC\_INACTIVE Ericsson discussion NR\_redcap-Core

[R2-2108525](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108525.zip) Discussion on eDRX for RRC\_Idle and RRC\_Inactive CMCC discussion Rel-17 NR\_redcap-Core

[R2-2108699](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108699.zip) Discussion on eDRX for NR RRC Inactive and Idle CATT discussion Rel-17 NR\_redcap-Core

[R2-2108778](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108778.zip) Open issues on eDRX for UE in RRC\_INACTIVE DENSO CORPORATION discussion Rel-17 NR\_redcap-Core

#### 8.12.3.2 RRM relaxations

Measurement-basedstationarity criterion and related not-at-cell-edge criterion, for RRC Inactive, Idle and Connected.

[R2-2107074](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107074.zip) Discussion on RRM relax for RedCap UEs OPPO discussion Rel-17 NR\_redcap-Core

[R2-2107097](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107097.zip) RedCap RRM relaxation in RRC\_Idle/Inactive Samsung discussion Rel-17

[R2-2107098](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107098.zip) RedCap RRM relaxation in RRC\_Connected Samsung discussion Rel-17

R2-2107110 RRM relaxation for Redcap UE KDDI Corporation discussion Late

[R2-2107118](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107118.zip) NR-REDCAP stationarity relaxations based on measurements THALES discussion

[R2-2107145](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107145.zip) On the efficient RRM relaxation on RRC connected mode Fraunhofer IIS, Fraunhofer HHI discussion Rel-17

[R2-2107211](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107211.zip) RRM measurement relaxation for RedCap UE Huawei, HiSilicon discussion Rel-17 NR\_redcap-Core

[R2-2107218](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107218.zip) RRM relaxations for RedCap UEs Qualcomm Incorporated discussion Rel-17 FS\_NR\_redcap

[R2-2107386](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107386.zip) Discussion on RRM measurement relaxation for redcap Xiaomi Communications discussion Rel-17 NR\_redcap-Core

[R2-2107413](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107413.zip) RRM relaxation for neighboring cell for RedCap UEs vivo, Guangdong Genius discussion Rel-17 FS\_NR\_redcap

[R2-2107679](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107679.zip) RRM measurement relaxation criteria for RedCap devices Intel Corporation discussion Rel-17 NR\_redcap

[R2-2107748](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107748.zip) RRM relaxation for RedCap UEs ZTE Corporation, Sanechips discussion Rel-17 NR\_redcap-Core

[R2-2107754](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107754.zip) RRM Relaxation for RedCap UE NTT DOCOMO INC. discussion Rel-17 R2-2105229

[R2-2107847](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107847.zip) Further considerations on RRM relaxation in RRC\_IDLE and RRC\_INACTIVE LG Electronics Inc. discussion Rel-17 NR\_redcap-Core

[R2-2107848](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107848.zip) Remaining issues in RRM relaxation in RRC\_CONNECTED LG Electronics Inc. discussion Rel-17 NR\_redcap-Core

[R2-2107873](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107873.zip) RRM relaxation for RedCap UEs SHARP Corporation discussion

[R2-2107904](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107904.zip) RRM relaxation for stationary UE with reduced capability Lenovo, Motorola Mobility discussion Rel-17

[R2-2108070](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108070.zip) Redcap relaxed measurements and number of beams Sony discussion Rel-17 NR\_redcap-Core

R2-2108071 RedCap Relaxed measurements, stationary definition Sony discussion Rel-17 NR\_redcap-Core Withdrawn

[R2-2108259](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108259.zip) On RRM relaxations for REDCAP Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_redcap-Core

[R2-2108260](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108260.zip) On RRM relaxations in CONNECTED Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_redcap-Core

[R2-2108275](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108275.zip) Details on RRM relaxation Ericsson discussion Rel-17 NR\_redcap-Core

[R2-2108465](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108465.zip) Discussion on Rel-17 not-at-cell-edge criterion Futurewei Technologies discussion Rel-17 NR\_redcap-Core

[R2-2108518](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108518.zip) Discussion on the RRM relaxation for RedCap Ues CMCC discussion Rel-17 NR\_redcap

[R2-2108629](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108629.zip) RRM relaxation of RedCap UE China Telecommunications discussion Rel-17

[R2-2108700](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108700.zip) Discussion on RRM relaxations for RRC\_CONNECTED CATT discussion Rel-17 NR\_redcap-Core

[R2-2108784](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108784.zip) Work on RRM relaxation for RedCap UEs DENSO CORPORATION discussion Rel-17 NR\_redcap-Core

## 8.13 SON/MDT

(NR\_ENDC\_SON\_MDT\_enh-Core; leading WG: RAN3; REL-17; WID: RP-201281)

Time budget: 1 TU

Tdoc Limitation: 6 tdocs

Email max expectation: 6 threads

### 8.13.1 Organizational

[R2-2106932](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106932.zip) LS on Area scope configuration and Frequency band info in MDT configuration (R3-212824; contact: Huawei) RAN3 LS in Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core To:RAN2

[R2-2106942](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106942.zip) LS on UP measurements for Successful Handover Report (R3-212935; contact: Ericsson) RAN3 LS in Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core To:RAN2

[R2-2106944](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106944.zip) Reply LS on UE context keeping in the source cell (R3-212944; contact: Ericsson) RAN3 LS in Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core To:RAN2

[R2-2106946](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106946.zip) LS on Report Amount for M4, M5, M6, M7 measurements (R3-212961; contact: Ericsson) RAN3 LS in Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core To:RAN2, SA5

[R2-2106980](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106980.zip) Reply LS on the details of logging forms reported by the gNB-CU-CP, gNB-CU-UP and gNB-DU under measurement pollution conditions (S5-213499; contact: Ericsson) SA5 LS in Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core To:RAN3 Cc:RAN2

[R2-2106982](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106982.zip) LS on using SA5 Performance Measurements and Trace for centralised PCI management (S5-213689; contact: Ericsson) SA5 LS in Rel-17 eSON\_5G To:RAN2

[R2-2107715](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107715.zip) Using SA5 Performance Measurements and Trace for centralised PCI management vivo discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2107716](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107716.zip) [Draft] LS reply on using SA5 Performance Measurements and Trace for centralised PCI management vivo LS out Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core To:SA5

[R2-2108310](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108310.zip) On reply LS on Report Amount for M4, M5, M6, M7 measurements Ericsson discussion

[R2-2108311](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108311.zip) On reply LS to SA5 On using SA5 performance measurements and MDT for centralised PCI management Ericsson discussion

[R2-2108419](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108419.zip) LS Reply On user plane masurements for successful handover report Ericsson discussion NR\_ENDC\_SON\_MDT\_enh-Core

### 8.13.2 SON

#### 8.13.2.1 Handover related SON aspects

Including the outcome of [Post114-e][850][SON/MDT] Modeling of CHO and DAPS related RLF reports (Ericsson)

Including the outcome of [Post114-e][851][SON/MDT] Procedures and Modeling of successful HO report (Huawei)

[R2-2107393](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107393.zip) Further consideration of SON of HO related aspects OPPO discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2107510](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107510.zip) Further clarification on SON MRO Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core R2-2105476

[R2-2107717](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107717.zip) Discussion on CHO, DAPS and SHR enhancements vivo discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2107777](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107777.zip) Open issues on SHR NEC discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2107821](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107821.zip) Further Discussions on CHO and DAPS Aspects CATT discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2107849](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107849.zip) Considerations on reporting successive failures in DAPS handover LG Electronics Inc. discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2107883](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107883.zip) SON Enhancements for CHO Lenovo, Motorola Mobility discussion Rel-17

[R2-2107884](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107884.zip) SON Enhancements for DAPS Handover Lenovo, Motorola Mobility discussion Rel-17

[R2-2107885](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107885.zip) SON Enhancements for SHR Lenovo, Motorola Mobility discussion Rel-17

[R2-2107886](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107886.zip) SON Enhancement for NR-U Lenovo, Motorola Mobility discussion Rel-17

[R2-2108352](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108352.zip) Consideration on CHO and DAPS related SON aspects ZTE Corporation, Sanechips discussion Rel-17

[R2-2108353](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108353.zip) Consideration on remianing issues on SHR ZTE Corporation, Sanechips discussion Rel-17

[R2-2108417](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108417.zip) Handover-related SON aspects Ericsson discussion NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2108425](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108425.zip) [Post114-e][850][SON/MDT] Modeling of CHO and DAPS related RLF reports (Ericsson) Ericsson discussion NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2108430](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108430.zip) Discussion on handover related SON aspects Huawei, HiSilicon discussion Rel-17

[R2-2108539](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108539.zip) Remaining issues on SON Enhancement for CHO CMCC discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2108540](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108540.zip) Remaining issues on SON Enhancement for DAPS CMCC discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2108541](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108541.zip) Further Discussion on Successful Handover Report CMCC discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2108570](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108570.zip) Signalling model for CHO-related RLF report LG Electronics Polska discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2108631](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108631.zip) SON Enhancements for CHO and DAPS HO Samsung discussion NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2108766](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108766.zip) Consideration on successful HO report Sharp discussion NR\_ENDC\_SON\_MDT\_enh-Core R2-2106136

[R2-2108783](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108783.zip) SON enhancement for DAPS Sharp discussion NR\_ENDC\_SON\_MDT\_enh-Core

#### 8.13.2.2 2-step RA related SON aspects

[R2-2107392](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107392.zip) Discussion on 2-step RACH reporting OPPO discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2107507](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107507.zip) Remaining Issues and New Aspects in 2-step NR UE Report Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core R2-2105477

[R2-2107640](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107640.zip) On 2-step RACH SON Apple discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2107718](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107718.zip) Discussion on remaining issues of 2-step RACH report vivo discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2107822](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107822.zip) The Remaining Issues of RACH Report for 2-step RACH CATT discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2108354](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108354.zip) 2step RA related enhancements ZTE Corporation, Sanechips discussion Rel-17

[R2-2108418](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108418.zip) 2-Step RA information for SON purposes Ericsson discussion NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2108431](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108431.zip) Discussion on 2 step RA related SON aspects Huawei, HiSilicon discussion Rel-17

[R2-2108542](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108542.zip) SON Enhancement for 2-step RA CMCC discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2108642](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108642.zip) SON Enhancements for 2SRA Samsung discussion NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2108780](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108780.zip) RA report for 2-step RA Sharp discussion NR\_ENDC\_SON\_MDT\_enh-Core R2-2106133

R2-2108840 Summary of 8.13.2.2 2-step RA related SON aspects OPPO discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

#### 8.13.2.3 Other WID related SON features

Including the outcome of [Post114-e][852][SON/MDT] Modeling aspects related to information required by SN/SCG (CATT)

[R2-2107509](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107509.zip) Discussion on other SON aspects Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2107511](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107511.zip) Reporting Enhancements for SON in unlicensed access Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2107512](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107512.zip) MPE impact on MRO Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2107823](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107823.zip) Further Analysis on Solution of UE RACH Report for SN CATT discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2107824](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107824.zip) Further Considerations on Other SON features CATT discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2107825](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107825.zip) Report of [Post114-e][852][SON\_MDT] Modeling aspects related to information required by SN/SCG CATT report Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2108307](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108307.zip) On other WID related SON features Ericsson discussion

[R2-2108334](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108334.zip) NR-U Related Enhancements QUALCOMM INCORPORATED discussion Rel-17

[R2-2108355](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108355.zip) On other WID related issues ZTE Corporation, Sanechips discussion Rel-17

[R2-2108432](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108432.zip) Discussion on other WID related SON features Huawei, HiSilicon discussion Rel-17

[R2-2108643](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108643.zip) SON Enhancements for Successful HO Report Samsung discussion NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2108648](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108648.zip) SON Enhancements: Others Samsung discussion NR\_ENDC\_SON\_MDT\_enh-Core

### 8.13.3 MDT

#### 8.13.3.1 Immediate MDT enhancements

[R2-2107719](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107719.zip) On RAN3 LS on MDT issues vivo discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2107826](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107826.zip) Further Considerations on Immediate MDT Enhancements CATT discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2108302](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108302.zip) On Immediate MDT Enhancements Ericsson discussion

[R2-2108349](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108349.zip) On accurate M5 and M7 measurements QUALCOMM INCORPORATED discussion Rel-17

[R2-2108356](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108356.zip) Consideration on immediate MDT aspects ZTE Corporation, Sanechips discussion Rel-17

[R2-2108564](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108564.zip) Report of [Post114-e][851][SONMDT] Procedures and Modeling of successful HO report (Huawei) Huawei discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2108565](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108565.zip) Discussion on immediate MDT enhancements Huawei, HiSilicon discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

#### 8.13.3.2 Logged MDT enhancements

[R2-2107394](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107394.zip) logged MDT enhancement regarding RAT-specific coverage hole OPPO discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2107395](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107395.zip) Futher consideration of MDT configuration priority OPPO discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2107508](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107508.zip) Logged MDT in EN-DC and other enhancements Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core R2-2105478

[R2-2107720](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107720.zip) On-demand SI request enhancements vivo discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2107827](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107827.zip) Considerations on MDT Enhancements for On-demand SI CATT discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2108306](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108306.zip) On logged MDT related enhancements Ericsson discussion

[R2-2108331](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108331.zip) Logged measurement Enhancements QUALCOMM INCORPORATED discussion Rel-17

[R2-2108357](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108357.zip) Consideration on on-demand SI request information report ZTE Corporation, Sanechips discussion Rel-17

[R2-2108505](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108505.zip) MDT for Slice unavailability CMCC, Ericsson, Huawei discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2108543](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108543.zip) Further consideration on UL-DL coverage mismatch CMCC discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2108566](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108566.zip) Discussion on logged MDT enhancements Huawei, HiSilicon discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2108568](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108568.zip) Discussion on Area scope configuration and Frequency band info in MDT configuration based on RAN3 LS R3-212824 Huawei, HiSilicon discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2108650](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108650.zip) SON Enhancements for SI Request Optimization Samsung discussion NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2108739](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108739.zip) Discussion on Logged MDT issues Samsung Electronics Co., Ltd discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

### 8.13.4 L2 Measurements

[R2-2107455](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107455.zip) Discussion on the UE DL PDCP packet average delay measurement China Telecommunication discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core

[R2-2108305](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108305.zip) On layer-2 measurements Ericsson discussion

[R2-2108567](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108567.zip) Discussion on L2M Huawei, CMCC, HiSilicon discussion Rel-17 NR\_ENDC\_SON\_MDT\_enh-Core R2-2104009

## 8.14 NR QoE

(NR\_QoE-Core; leading WG: RAN3; REL-17; WID: RP-211406)

Time budget: 0.5 TU

Tdoc Limitation: 3 tdocs

Email max expectation: 2 threads

Focus on adressing open issues

### 8.14.1 Organizational

LS in. Rapporteur input. Running CRs.

LS in

[R2-2106938](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106938.zip) LS on the mapping between service types and slice at application (R3-212904; contact: Qualcomm) RAN3 LS in Rel-17 NR\_QoE To:SA4, CT1, SA5 Cc:RAN2, SA2

* Noted

[R2-2106945](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106945.zip) LS on requirement for configuration changes of ongoing QMC sessions (R3-212953; contact: Qualcomm) RAN3 LS in Rel-17 NR\_QoE To:SA4 Cc:SA5, RAN2

* Noted

[R2-2106949](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106949.zip) LS on the area handling for QoE during mobility (R3-212976; contact: Qualcomm) RAN3 LS in Rel-17 NR\_QoE To:RAN2, SA4 Cc:SA5

* Noted

CRs

[R2-2108108](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108108.zip) Running RRC CR for QoE measurements Ericsson draftCR Rel-17 38.331 16.5.0 B NR\_QoE-Core

- Ericsson indicate that this is the same as output o flast meeting email discussion. Expect to continue this meeting capture agrements.

* noted

[R2-2108209](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108209.zip) 38.300 running CR for introduction of QoE measurements in NR Huawei, China Unicom, HiSilicon draftCR Rel-17 38.300 16.6.0 NR\_QoE-Core

- Cu indicate that this is the same as output of last meeting except some small editorials. Expect to continue this meeting capture agrements.

* noted
* [Post115-e][078][QoE] RRC running CR (Ericsson)

Scope: Progress the 38331 running CR. Update with agreements. Use Editors notes where appropriate.

Intended outcome: Endorsed draft CR.

Deadline: Short 2 (not for RP)

* [Post115-e][079][QoE] Stage-2 running CR (Huawei, China Unicom)

Scope: Progress the 38300 running CR. Update with agreements. Use Editors notes where appropriate.

Intended outcome: Endorsed draft CR.

Deadline: Short 2 (not for RP)

### 8.14.2 QoE measurement collection NR standalone

Specify the support for QoE measurement collection in NR standalone mode. [RAN2, RAN3], including: configuration, activation, and deactivation procedures for both signalling-based and management-based QoE measurement collection and reporting, taking LTE QoE solutions as baseline, as defined in TR 38.890, Including determination of QoE measurement handling at RRC state transition/in RRC\_INACTIVE. including: support for multiple simultaneous QoE measurements at a UE, including: QoE measurement handling at RAN overload, including pause and resume of QoE measurement reporting.

Do not input to 8.14.2 but instead to 8.14.2.x

#### 8.14.2.1 Configuration architecture general aspects

General

[R2-2109038](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109038.zip) [Pre115-e][007][QoE] Summary 8.14.2.1 Excluding Mobility Ericsson discussion Rel-17 NR\_QoE-Core

DISCUSSION

- Ericsson proposes to postpone UE cap discussion until the end.

- P1 Vivo think RRC iD is in the configuration,

- P10 vivo think we should define override.

- 2, 4, 8, 10 are not agreeable. 2 No need for requirements, 4 6 think this will depend on the reply from SA4, 10 a new requirement, but no new rule needed for connected.

P1 2 3

- ZTE do not agree with 1 and 2. No need to have a RRC ID.

- Ericsson think the RRC addmod list anyway need an ID, and we have already agreed to have it.

- ZTE think that we should use only QoE reference ID .. not RRC ID at all. Ericsson think the QoE reference ID can point to more than one measurement config so it is not sufficient.

- Oppo think we should CC R3 as well.

- Huawei agree that a RRC ID is needed and it makes no sense to have something different than std addmod list and. And agree with Ericsson doesn’t work due to multiple measurements. Also too much over head.

- C Unicom agree on RRC ID.

- Lenoov support RRC ID, too much overhead with QOE ref.

- QC support P1 P2.

- Nokia think for P2 handover doesn’t need to know the mapping at handover.

P4

- Ericsson indicate tht this dep on whether there can be multiple measuremeent configurations per service type. Ericsson think that the ID need to be added to the report all the way.

- Nokia think this is not needed.

- Samsung think that this is needed. QC too.

P5

- Chair think this is obvious, can be confirmed later.

P6

- LG think for Idle it was already agreed. Think for inactive only MBS bcast can be received and los QoS is expected, so no need.

- Apple are ok with P6. Should we then have same behaviour for inactive as for Idle i.e. UE drops the configuration?

P9

- ZTE think we can just ask SA5.

- Nokia think this is inferred by configuration size. Nokia think that 8 is reasonable.

- CATT agrees to just ask SA5.

- Chair: many companies think that the number 8 is reasonable.

* It is the RAN2 understanding that the QoE Reference does not need to be sent to or from the UE in RRC signaling for QoE measurements in RRC\_CONNECTED. The RRC ID, MeasConfigAppLayerId, is sufficient to identify the QoE configuration between UE and gNB.
* RAN2 assumes that gNB keeps the mapping between MeasConfigAppLayerId and QoE Reference. The mapping is sent to the target gNB as part of QoE configuration and information at handover.
* Send an LS to SA5 (cc R3) to confirm proposals (agreements) 1 and 2.
* FFS if the RRC layer forwards the MeasConfigAppLayerId together with the QoE configuration to the application layer.
* Confirm that RAN2 deprioritizes QoE measurement in RRC\_IDLE/RRC\_INACTIVE in Rel-17.
* Send an LS to SA5 for confirmation of max number of QoE configurations per UE. Number 8 could be assumed, to be finally concluded offline.

Continue offline, LS out

* [AT115-e][045][QoE] QoE LS out (Ericsson)

Scope: LS out to S5 (cc R3) acc to on-line discussion, conclude max no of QoE configs per UE, and other details if needed.

Intended outcome: Approved LS out

Deadline: Tuesday W2 (CB if needed)

W2 on-line CB

DISCUSSION

- Ericsson reports that 32 could be an ok max no of QoE configs per UE.

- Nokia think 4 or 8 given the load this will create.

- Ericsson think this is up to the network and we usually don’t restrict signalling range based on load. Chair agrees that this is usually the case. Ericsson cannot accept 4, as this is too low number.

- QC think that several companies proposed also 64.

* R2 has not concluded the max no of QoE configs per UE, numbers in the range 8 - 64 are discussed.

[R2-2109200](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109200.zip) QoE Reference and maximum number of QoE configurations in RRC RAN2 LSout

* [045] The LS out is approved

[R2-2108109](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108109.zip) Configuration and reporting of QoE measurements Ericsson discussion Rel-17 NR\_QoE-Core

[R2-2107099](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107099.zip) General aspects in QoE Samsung discussion Rel-17

[R2-2107380](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107380.zip) Discussion on NR QoE configuration CATT discussion NR\_QoE-Core

[R2-2107396](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107396.zip) Further discussion on QoE measurement collection in NR OPPO discussion Rel-17 NR\_QoE-Core

[R2-2107513](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107513.zip) QoE handling in RAN Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_QoE-Core R2-2105479

[R2-2107514](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107514.zip) RAN control on QoE reporting Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_QoE-Core

Moved here

[R2-2107816](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107816.zip) Left issues for QoE configuration and reporting Qualcomm Incorporated discussion NR\_QoE-Core

[R2-2108197](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108197.zip) Discussion on QoE measurement and configuration China Unicom, China Southern Power Grid discussion Rel-17 NR\_QoE-Core

[R2-2108206](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108206.zip) Discussion on QoE measurement configuration and reporting Huawei, HiSilicon discussion Rel-17 NR\_QoE-Core

[R2-2108227](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108227.zip) Discussion on NR QoE configuration ZTE Corporation, Sanechips discussion Rel-17

[R2-2108514](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108514.zip) More considerations on configuration and reporting CMCC discussion Rel-17

[R2-2108594](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108594.zip) Discussion on QoE measurement configuration vivo discussion Rel-17 NR\_QoE-Core

* [007] 12 tdocs above are Noted
* [AT115-e][046][QoE] Mobility (Huawei)

Scope: Treat R2-2109036 and related proposals. For each point, attempt to agree, if agreement seems not possible, outline the options or specify a FFS to be addressed later.

Intended outcome: Agreements, Report

Deadline: Tuesday W2 (CB)

Mobility

W2 Tuesday on-line

[R2-2109105](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109105.zip) Report of offline: [AT115-e][046][QoE] Mobility (Huawei) Huawei

DISCUSSION

P3\_rev

- QC would like to remove the last part.

P8

- LG think we already agreed this, as we agreed behaiovur at release.

- Samsung think this is an exceptional case, but are ok.

[046]-1

- QC think it is ok to keep FFS, but have concerns on e.g. part.

- Oppo think that in 28405 this is there. Not clear what is the meaning of this proposal. We should just align with Sa4 TS.

- Apple think we don't’ gain anything by agreeing this. Would be ok to remove text as proposed by QC.

[046]-2

- Intel wonder if we need such optimization. We never had partial full configuration, and for full configuration we also need to consider forward compatibility. LG and Nokia agrees.

- Ericsson think this proposal is very important. Intel think this is not time critical, and think the usage of full configuration isn’t very common, and we haven’t done such optmizations for AS.

- Chair: cannot agree this now. Suggest that proponents look at some other solution.

* RAN2 assumes that all QoE mobility related agreements made by RAN2 are applicable at least to signalling based QoE. Whether the same applies to management-based QoE is pending further input from SA5 and RAN3.
* Area scope parameter is not introduced in RRC procedures supporting QoE.
* When the UE resumes the connection in a gNB supporting QoE, the target gNB should explicitly indicate which QoE measurement configurations should be kept by the UE during RRC resume procedure, e.g. in RRCResume message. The UE shall release all QoE measurement configurations not indicated by the gNB for restoration. FFS how the indication looks like, e.g. granularity per QoE configuration or common for all QoE configurations.
* During the handover to target gNB which supports QoE, the target gNB decides which QoE configurations to keep and which to release during a handover, e.g. based on QoE configuration information received from the source gNB in Xn/Ng signalling (exact information is up to RAN3) including the RRC container.
* The UE discards the reports received from application layer in case it has no associated QoE configuration configured.
* FFS whether the gNB needs to know the QoE configurations for which there are ongoing QoE sessions, e.g. to enable QoE configuration handling upon mobility (pending SA4 reply on the ongoing QoE measurement session continuity requirement).
* In case the UE resumes the connection in a gNB not supporting QoE, the UE should release all QoE measurement configurations.

[R2-2109036](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109036.zip) [Pre115-e][008][QoE] Summary Support for Mobility Huawei, HiSilicon discussion Rel-17 NR\_QoE-Core

Chair: Continue offline.

[R2-2108207](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108207.zip) QoE handling during UE mobility Huawei, HiSilicon discussion Rel-17 NR\_QoE-Core

[R2-2108110](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108110.zip) Mobility Support for NR QoE Management Ericsson discussion Rel-17 NR\_QoE-Core

[R2-2108111](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108111.zip) [Draft] Support for Session Start and Session End Indication Ericsson LS out Rel-17 NR\_QoE-Core To:CT1

[R2-2108228](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108228.zip) Discussion on NR QoEcontinuity in handover ZTE Corporation, Sanechips discussion Rel-17

[R2-2108595](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108595.zip) Discussion on QoE continuity during mobility vivo discussion Rel-17 NR\_QoE-Core

* [008][046] 6 tdocs above are noted

#### 8.14.2.2 Start and Stop

Activation Deactivation Pause Resume. Note that the remaining discussion on Pause Resume may be deprioritized awaiting reply LS.

[R2-2107615](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107615.zip) Pause/Resume functionality Apple discussion Rel-17

[R2-2107100](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107100.zip) Pause and resume in QoE Samsung discussion Rel-17

[R2-2107101](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107101.zip) Storing QoE reports in AS at pause Samsung discussion Rel-17

[R2-2107381](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107381.zip) Activation and deactivation for QoE collection CATT discussion NR\_QoE-Core

[R2-2107382](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107382.zip) Discussion on QoE collection start and stop CATT discussion NR\_QoE-Core

[R2-2107397](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107397.zip) Discussion on QoE measurement pausing and resuming OPPO discussion Rel-17 NR\_QoE-Core

[R2-2107515](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107515.zip) QoE pausing Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_QoE-Core R2-2105920

[R2-2107817](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107817.zip) Left issues for QoE pause and resume procedure Qualcomm Incorporated discussion NR\_QoE-Core

[R2-2107852](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107852.zip) Discussion on the partial QoE reporting and buffering at RAN overload ITRI discussion NR\_QoE-Core

[R2-2107882](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107882.zip) Stop and start for QoE measurement reporting LG Electronics Inc. discussion Rel-17

[R2-2108213](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108213.zip) Discussion on pause and resume mechanism China Unicom, China Southern Power Grid discussion Rel-17 NR\_QoE-Core

[R2-2108226](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108226.zip) Discussion on NR QoE start and stop ZTE Corporation, Sanechips discussion Rel-17

[R2-2108515](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108515.zip) More considerations on start and stop CMCC discussion Rel-17

### 8.14.3 Other

Other WI objectives.

General

[R2-2108208](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108208.zip) Initial thoughts on non-RAN2 led objectives Huawei, HiSilicon discussion Rel-17 NR\_QoE-Core

RAN visible QoE

[R2-2107818](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107818.zip) Support of RAN visible QoE Qualcomm Incorporated discussion NR\_QoE-Core

## 8.15 NR Sidelink enhancements

(NR\_SL\_enh-Core; leading WG: RAN1; REL-17; WID: RP-202846)

Time budget: 1.5 TU

Tdoc Limitation: 4 tdocs

Email max expectation: 6 threads

The LS from SA2 in [R2-2106967](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106967.zip) (S2-2104932) that addresses a mix of sidelink relay and sidelink enhancement topics will initially be handled under the NR SL relay AI.

### 8.15.1 Organizational

Including incoming LSs, rapporteur inputs, etc.

R2-2108496 Stage 2 Running CR of TS 38.300 for eSL InterDigital France R&D, SAS discussion Rel-17 Late

### 8.15.2 SL DRX

Including [Post114-e][704], [Post114-e][705], and [Post114-e][706].

[R2-2106985](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106985.zip) Leftover Issues for Sidelink Unicast DRX CATT discussion Rel-17 NR\_SL\_enh-Core

[R2-2106986](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106986.zip) Leftover Issues for Sidelink Groupcast and Broadcast DRX CATT discussion Rel-17 NR\_SL\_enh-Core

[R2-2106987](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106987.zip) Further Issues Regarding to the Tx Profile CATT discussion Rel-17 NR\_SL\_enh-Core

[R2-2106988](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106988.zip) Impacts of SL DRX on Other Procedures CATT discussion Rel-17 NR\_SL\_enh-Core

[R2-2107041](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107041.zip) Discussion on left issue from [704][705][706] OPPO discussion Rel-17 NR\_SL\_enh-Core

[R2-2107151](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107151.zip) NR SL DRX Fraunhofer IIS, Fraunhofer HHI discussion Rel-17

[R2-2107155](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107155.zip) Consideration on sidelink DRX for groupcast and broadcast Huawei, HiSilicon discussion Rel-17 NR\_SL\_enh-Core

[R2-2107156](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107156.zip) Remaining issues on the sidelink DRX for unicast Huawei, HiSilicon discussion Rel-17 NR\_SL\_enh-Core

[R2-2107157](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107157.zip) Discussion on SL communication impact on Uu DRX Huawei, HiSilicon discussion Rel-17 NR\_SL\_enh-Core

[R2-2107159](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107159.zip) Summary of [POST114-e][705][V2XSL] Discussion on remaining FFSs and open issues in Uu DRX timer Huawei, HiSilicon discussion

[R2-2107190](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107190.zip) Left issues on SL-DRX OPPO discussion Rel-17 NR\_SL\_enh-Core

=> Revised in R2-2108830

R2-2108830 Left issues on SL-DRX OPPO discussion Rel-17 NR\_SL\_enh-Core

[R2-2107191](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107191.zip) Discussion on SL-DRX impact to mode-1 scheduling OPPO discussion Rel-17 NR\_SL\_enh-Core

[R2-2107238](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107238.zip) Leftover issues on overall flow of unicast TX-UE centric mechanism NEC Corporation discussion

[R2-2107239](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107239.zip) Discussion on DRX suspend/resume mechanism NEC Corporation discussion

[R2-2107242](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107242.zip) Further discussion on Uu/SL DRX timer LG Electronics France discussion Rel-17 NR\_SL\_enh-Core

[R2-2107268](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107268.zip) Summary of [POST114-e][706][V2X/SL] Discussion on remaining FFSs/open issues in SL DRX timer maintenance (InterDigital) InterDigital discussion Rel-17 NR\_SL\_enh-Core

[R2-2107269](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107269.zip) Resource Allocation Considering DRX InterDigital discussion Rel-17 NR\_SL\_enh-Core

[R2-2107270](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107270.zip) Open Issues on SL DRX Timers InterDigital discussion Rel-17 NR\_SL\_enh-Core

[R2-2107271](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107271.zip) DRX Configuration Determination in Unicast InterDigital discussion Rel-17 NR\_SL\_enh-Core

[R2-2107303](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107303.zip) Summary of [POST114-e][704][V2X/SL] How to make sure Rel-16 UEs not supporting SL DRX are not involved in SL communication in DRX manner (Sharp) SHARP Corporation discussion NR\_SL\_enh-Core Late

[R2-2107310](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107310.zip) On SL DRX Configuration aspects Intel Corporation discussion Rel-17 NR\_SL\_relay-Core

[R2-2107311](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107311.zip) Discussion on SL DRX Timers Intel Corporation discussion Rel-17 NR\_SL\_enh-Core

[R2-2107312](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107312.zip) On DRX wake-up time alignment Intel Corporation discussion Rel-17 NR\_SL\_enh-Core

[R2-2107355](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107355.zip) Remaining issues on DRX Timers for SL Unicast Spreadtrum Communications discussion Rel-17

[R2-2107432](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107432.zip) Consideration on Backward compatibility for SL DRX ZTE Corporation, Sanechips discussion Rel-17 NR\_SL\_enh-Core

[R2-2107433](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107433.zip) Further consideration on DRX configuration ZTE Corporation, Sanechips discussion Rel-17 NR\_SL\_enh-Core

[R2-2107434](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107434.zip) Discussion on SL DRX timer ZTE Corporation, Sanechips discussion Rel-17 NR\_SL\_enh-Core

[R2-2107472](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107472.zip) Remaining aspects of SL DRX Ericsson discussion Rel-17 NR\_SL\_enh-Core

[R2-2107474](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107474.zip) Handling coexistence between UEs supporting different releases Ericsson discussion Rel-17 NR\_SL\_enh-Core

[R2-2107626](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107626.zip) Discussion on remaining issues of SL DRX configurations Apple discussion Rel-17 NR\_SL\_enh-Core

[R2-2107627](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107627.zip) Discussion on remaining issues of SL impact of Uu-DRX Apple discussion Rel-17 NR\_SL\_enh-Core

[R2-2107653](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107653.zip) Remaining details on HARQ RTT and Retransmission Timer for SL DRX Fujitsu discussion Rel-17 NR\_SL\_enh-Core R2-2105400

[R2-2107654](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107654.zip) SL DRX impact on LCP Fujitsu discussion Rel-17 NR\_SL\_enh-Core R2-2105401

[R2-2107968](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107968.zip) DRX impact on Uu Xiaomi communications discussion

[R2-2107969](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107969.zip) Discussion on Sidelink DRX for unicast Xiaomi communications discussion

[R2-2107970](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107970.zip) Discussion on Sidelink DRX for broadcast and groupcast Xiaomi communications discussion

[R2-2108014](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108014.zip) DRX Configuration for UC BC GC and its interaction with Sensing Lenovo Mobile Com. Technology discussion NR\_SL\_enh-Core

[R2-2108016](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108016.zip) DRX coordination between Uu and SL Lenovo Mobile Com. Technology discussion NR\_SL\_enh-Core

[R2-2108072](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108072.zip) Proposals for Sidelink DRX Sony discussion Rel-17 NR\_SL\_enh-Core

[R2-2108151](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108151.zip) Consideration on TX centric SL DRX configuration and alignment LG Electronics Inc. discussion Rel-17 NR\_SL\_enh-Core

[R2-2108214](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108214.zip) Discussion on Compatible Issues with Rel 16 UEs Qualcomm Finland RFFE Oy discussion

[R2-2108215](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108215.zip) Discussion on RLF and PC5 RRC Connection with SL DRX Qualcomm Finland RFFE Oy discussion

[R2-2108217](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108217.zip) Discussion on Remaining Issues Qualcomm Finland RFFE Oy discussion

[R2-2108222](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108222.zip) A Default PC5 DRX Configuration for Broadcast/Groupcast/Unicast vivo discussion

[R2-2108223](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108223.zip) DRX duration calculation vivo, Xiaomi, ZTE corporation discussion

[R2-2108224](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108224.zip) Remaining issues on SL DRX for unicast/groupcast/broadcast vivo discussion

[R2-2108426](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108426.zip) Discussion on TBD/FFS Samsung Research America discussion

[R2-2108427](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108427.zip) Further consideration for SL DRX operation in groupcast Samsung Research America discussion

[R2-2108428](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108428.zip) Further consideration for SL DRX and Uu DRX alignments Samsung Research America discussion

[R2-2108469](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108469.zip) Discussion on alignment of mode 1 RA of Tx UE and SL DRX of Rx UE Nokia, Nokia Shanghai Bell discussion NR\_SL\_enh-Core

[R2-2108470](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108470.zip) Further Issues on Sidelink Traffic Pattern for SL DRX Configuration Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SL\_enh-Core R2-2105958

[R2-2108471](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108471.zip) SL DRX for SL groupcast Nokia, Nokia Shanghai Bell discussion NR\_SL\_enh-Core

[R2-2108765](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108765.zip) SL DRX enabled UE Mode 2 operation ITL discussion Rel-17

[R2-2108822](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108822.zip) Remaining issues of SL DRX MediaTek Inc. discussion Rel-17 NR\_SL\_enh-Core

### 8.15.3 Resource allocation enhancements RAN2 scope

[R2-2107042](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107042.zip) Discussion on resource allocation enhancement OPPO discussion Rel-17 NR\_SL\_enh-Core

[R2-2107158](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107158.zip) Consideration on resource allocation enhancements Huawei, HiSilicon discussion Rel-17 NR\_SL\_enh-Core

[R2-2107181](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107181.zip) Power Reduction for Sidelink Mode 2 Resource Allocation Fraunhofer IIS, Fraunhofer HHI discussion

[R2-2107182](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107182.zip) Inter-UE Coordination for Sidelink Mode 2 Resource Allocation Fraunhofer IIS, Fraunhofer HHI discussion R2-2105499

[R2-2107240](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107240.zip) Discussion on inter-UE coordination for sidelink mode 2 resource allocation NEC Corporation discussion

[R2-2107272](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107272.zip) RAN2 Aspects of Inter-UE Coordination InterDigital discussion Rel-17 NR\_SL\_enh-Core

[R2-2107368](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107368.zip) Discussion on resource allocation enhancement for NR sidelink Spreadtrum Communications discussion Rel-17

[R2-2107435](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107435.zip) Discussion on inter-UE coordination ZTE Corporation, Sanechips discussion Rel-17 NR\_SL\_enh-Core

[R2-2107628](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107628.zip) Discussion on Inter-UE Coordination Apple discussion Rel-17 NR\_SL\_enh-Core

[R2-2107629](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107629.zip) NR SL Resource allocations for Pedestrian UEs Apple discussion Rel-17 NR\_SL\_enh-Core

[R2-2107918](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107918.zip) Discussion on sidelink resource allocation enhancements Lenovo, Motorola Mobility discussion Rel-17

[R2-2107971](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107971.zip) Resource allocation enhancement impact in RAN2 Xiaomi communications discussion

[R2-2108073](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108073.zip) Discusison on Sidelink sensing Sony discussion Rel-17 NR\_SL\_enh-Core

[R2-2108118](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108118.zip) Power efficient resource allocation and Inter-UE coordination LG Electronics France discussion Rel-17 NR\_SL\_enh-Core

[R2-2108191](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108191.zip) General principles for resource allocation enhancements for SL mode 2 Ericsson discussion Rel-17 NR\_SL\_enh-Core

[R2-2108225](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108225.zip) Discussion on inter-UE coordination for sidelink mode2 vivo discussion

[R2-2108295](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108295.zip) Resource Allocation Enhancements for Reduced Power Consumption and Enhanced Reliability Intel Corporation discussion Rel-17 NR\_SL\_enh-Core

[R2-2108429](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108429.zip) Initial discussion on enhanced resource allocation Samsung Research America discussion

[R2-2108472](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108472.zip) Reduced monitoring of SL resource pools for power saving Nokia, Nokia Shanghai Bell discussion NR\_SL\_enh-Core

[R2-2108752](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108752.zip) On Resource Allocation Mode 2 Enhancement for NR Sidelink Convida Wireless discussion Rel-17 R2-2106358

### 8.15.4 Other

[R2-2107473](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107473.zip) Interaction between partial sensing and DRX Ericsson discussion Rel-17 NR\_SL\_enh-Core

[R2-2107917](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107917.zip) Discussion on backward compatible issue of SL DRX Lenovo, Motorola Mobility discussion Rel-17

[R2-2108823](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108823.zip) SL sync search optimization MediaTek Inc. discussion Rel-17 NR\_SL\_enh-Core R2-2106441

## 8.16 NR Non-Public Network enhancements

(WI NG\_RAN\_PRN\_enh-Core; leading WG: RAN3; REL-17; WID: RP-202363)

Time budget: 0.5 TU

Tdoc Limitation: 3 tdocs

Email max expectation: 2-3 threads

### 8.16.1 Organizational

Rapporteur input, incoming LS etc. Running CRs.

LS in

[R2-2106903](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106903.zip) Reply LS on support of PWS over SNPN (C1-13640; contact: Qualcomm) CT1 LS in Rel-17 NG\_RAN\_PRN\_enh-Core To:SA1 Cc:SA2, SA3, RAN2, RAN3, SA, CT, RAN

* noted

[R2-2106934](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106934.zip) Reply LS on support of PWS over SNPN in R17 (R3-212863; contact: Huawei) RAN3 LS in Rel-17 NG\_RAN\_PRN\_enh-Core To:SA1, RAN Cc:SA2, CT1, RAN2, SA, CT, SA3

* noted

[R2-2106983](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106983.zip) Reply LS on support of PWS over NPN (SP-210584; contact: Qualcomm) SA LS in Rel-17 To:SA1, SA3, CT1, RAN2, RAN3 Cc:SA2, CT, RAN

- Nokia: logical to keep this work in this WI.

* noted

Work Plan

[R2-2107953](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107953.zip) RAN2 Work Plan for Enhancement for Private Network Support for NG-RAN Nokia, China Telecom (Rapporteurs) Work Plan Rel-17 NG\_RAN\_PRN\_enh-Core

- Nokia think we should have rapporteurs now for running CRs.

- Lenovo think the meeting numbers are not up to date. Chair think the original plan was to finish this WI early, but this may need to be verified, and if needed update the RP plans (AP for rapporteur to check)

* noted

Running CRs

R2-2107957 Draft Stage 2 CR: Non-Public Network enhancements Nokia, Nokia Shanghai Bell draftCR Rel-17 38.300 16.6.0 B NG\_RAN\_PRN\_enh-Core R2-2106553 Late

* [Post115-e][080][eNPN] Stage-2 running CR (Nokia)

Scope: Progress the 38300 running CR. Update with agreements. Use Editors notes where appropriate.

Intended outcome: Endorsed draft CR.

Deadline: Short 2 (not for RP)

* [Post115-e][081][eNPN] 38304 running CR (QC)

Scope: 38304 running CR. Identify impact and capture agreements. Use Editors notes where appropriate.

Intended outcome: Endorsed draft CR.

Deadline: Short 2 (not for RP)

* [Post115-e][082][eNPN] 38331 RRC running CR (Nokia)

Scope: 38331 running CR. Identify impact and capture agreements. Use Editors notes where appropriate.

Intended outcome: Endorsed draft CR.

Deadline: Short 2 (not for RP)

### 8.16.2 Support SNPN with subscription or credentials by a separate entity

Including the broadcasting of information to enable SNPN selection for UEs with subscription/credentials owned by an entity separate from the SNPN and Including the associated cell selection/reselection and connected mode mobility support (with RAN3). Including parts that are common with onboarding.

[R2-2109033](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109033.zip) [Pre115-e][009][eNPN] Summary 8.16.2 ext credentials + 8.16.3 onboarding (Nokia) Nokia discussion Rel-17 NG\_RAN\_PRN\_enh-Core

DISCUSSION

P7.1

- OPPO are ok with intention, but from R2, we should leave the door open. Chair propose to add RAN2 ..

- CMCC think this is required by SA2, think this is similar to R16. SA2 think SA2 has agreed that manual selection shall be possible. Chair wonder if the current HRRN cannot be used.

P3

- Nokia think Option b is better with the limit per cell. Oppo ok wihth b but can wait. LG support b can save 100s of bits. CMCC agrees as GIN is big.

P4

- Chair wonder if we can let the RRC TS rapporteur decide this.

- Huawei think all options use the … marker.

- Chair: P4 decided in the CR work, ask RRC rapporteur to have an opinion.

P5.1

- QC think that for ext CH this is easy

P5.2

- Ericsson think also this should be raised in other groups.

- LG think SA2 already indicated that the support bit can be used for load control. No need for anything else and no need for LS. Nokia agrees with LG.

P6.1

- Huawei think that for initial cell selection, cell suitability shall be modified. CATT agrees with HW, because we have agreed that this indicator can be set per cell. OPPO think that UE impl means trial and error which is not efficient. Nokia tend to agree, as we decided that the bit could be used for access control. Ericsson think that the bit is already considered in the first step of SNPN selection, and think that the can be considered by impl, it doesn’t mean trial error.

- QC think SA2 CR indicate that this is implementation, e.g. we also have to take into account barring etc but this is not specified. Also this is a one-time procedure. Ericsson agrees with QC, should avoid have such impact.

- Chair: seems to be slightly more support to leave to implementation but also significant support to modify..

- Chair: the default choice would be do nothing, i.e. leave to impl, but if this has bad consequences we can specify something.

P6.2

- QC wonder if this is not provided always. Anyway as long as we are consistent with CT1 it is ok.

- Ericsson wonder if this is needed. Do we need to specify this?

- ZTE think that if this is not there all UEs, even non-supporting ones, need to acquire this.

- Samsung have no strong opinion, see several options that could work.

- Chair: can postpone this, can discuss e.g. when discussing Stage-3 CR.

P7.2

- Chair think that ANR applicability should be motivated, if only to establish neighbour relations not clear that it is needed. Huawei also question this necessity. Ericsson agrees.

- Samsung think it would be useful.

* Wait for SA2 reply LS on the issue whether a common list of GINs used for onboarding and SNPN access using external credentials.
* RAN2 has not identified a need for modification of / addition to broadcast of HRNNs.
* RAN2 confirms that there is no impact on connected mode mobility when accessing an SNPN through CHs (was already assumed).
* maximum number of GINs is specified per cell
* new SIB specified to broadcast GINs acc to Option B: Single list of GINs with explicit assignment to SNPNs. Details on the explicit assignment are FFS.
* RAN2 didn’t identify a need for modification to access control for SNPN access using external credential (could be discussed in other groups)
* RAN2 didn’t identify a need for modification to access control for SNPN access for onboarding (could be discussed in other groups)

[R2-2107029](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107029.zip) Support SNPN with subscription or credentials by a separate entity OPPO discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2107323](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107323.zip) Further Consideration on Subscription or Credentials by CH CATT discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2107458](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107458.zip) Discussion of GIN design for NPN China Telecommunication discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2107743](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107743.zip) On Supporting Visited SNPN with Credentials Samsung R&D Institute India discussion

[R2-2107803](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107803.zip) Remaining issue on support SNPN by a separate entity vivo discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2107954](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107954.zip) Proposals for open issues of the support of Credential Holders Nokia, Nokia Shanghai Bell discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2108046](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108046.zip) Consideration on the Separate Entity Supporting ZTE Corporation, Sanechips discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2108229](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108229.zip) RAN2 impact to support SNPN with credentials by a separate entity MediaTek Inc. discussion Rel-17 NG\_RAN\_PRN\_enh-Core R2-2105670

[R2-2108254](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108254.zip) SNPN access using external credentials Ericsson discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2108545](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108545.zip) Left Issues on Supporting SNPN with Credentials by a Separate Entity CMCC discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2108612](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108612.zip) Accessing SNPN with credentials owned by a Credentials Holder Huawei, HiSilicon discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2108659](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108659.zip) Open issues on access with external Credential Holder LG Electronics discussion Rel-17

### 8.16.3 Support UE onboarding and provisioning for NPN

Including the UE onboarding relevant parameter broadcast from SIB and The associated cell selection/reselection, cell access control and the connected mode mobility support

[R2-2107030](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107030.zip) Support UE onboarding and provisioning for NPN OPPO discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2107324](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107324.zip) Open Issues on UE Onboarding and Provisioning for NPN CATT discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2107347](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107347.zip) UE onboarding and provisioning Qualcomm Incorporated discussion

[R2-2107442](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107442.zip) Remaining issues in support UE onboarding for SNPN Intel Corporation discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2107744](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107744.zip) On Supporting Onboarding SNPN Samsung R&D Institute India discussion

[R2-2107804](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107804.zip) Remaining issue on support UE onboarding for NPN vivo discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2107955](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107955.zip) Proposals for open issues of the support of onboarding Nokia, Nokia Shanghai Bell discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2108047](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108047.zip) Consideration on the Onboarding and Provisioning for NPN ZTE Corporation, Sanechips discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2108255](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108255.zip) UE onboarding Ericsson discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2108517](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108517.zip) Discussion the left issues to support UE on-boarding and remote provisioning CMCC discussion Rel-17 NG\_RAN\_PRN\_enh

[R2-2108613](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108613.zip) UE onboarding and remote provisioning for SNPN Huawei, HiSilicon discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2108660](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108660.zip) Open issues for UE Onboarding LG Electronics discussion Rel-17

[R2-2108653](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108653.zip) ASF CAG Priority Qualcomm Incorporated CR Rel-16 38.304 16.5.0 0218 - F NG\_RAN\_PRN\_enh-Core

### 8.16.4 Other

Including support of IMS voice and emergency services for SNPN (Broadcasting of relevant parameters).

[R2-2109017](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109017.zip) [Pre115-e][010][eNPN] Summary Document for AI 8.16.4 CMCC discussion Rel-17 NG\_RAN\_PRN\_enh-Core

DISCUSSION

- LG agree with all. Nokia too.

P1

- LG wonder if this is per cell or per SNPN. CMCC clarify that proponents are thinking per SNPN. Nokia are ok with per SNPN. QC are ok for per SNPN. Vivo think this should be per cell ..

- QC think that for the second part we should check with other group.

P2

- LG think this should be release independent.

* Introduce a new IE/field to indicate the support of IMS emergency service for SNPN.
* eCall over IMS is not supported in SNPNs in Rel-17.
* PWS can be supported in SNPNs in Rel-17.
* Send an LS to ask question related to P2 (new offline)
* [AT115-e][050][NPN] LS out (CMCC)

Scope: LS out acc to discussion, related to P2 in R2-2109017

Intended outcome: Approved LSout

Deadline: Tuesday W2 (CB online only if needed)

[R2-2109114](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109114.zip) LS on limited service availability of an SNPN RAN2 LSout

* [050] the LS out is approved

[R2-2107031](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107031.zip) Support of IMS Voice and Emergency Services for SNPN OPPO discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2107325](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107325.zip) Open Issues on Support of IMS Emergency for SNPN CATT discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2107348](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107348.zip) Support of emergency services for SNPN Qualcomm Incorporated discussion

[R2-2107441](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107441.zip) Support of IMS emergency call for SNPN Intel Corporation discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2107752](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107752.zip) On Supporting Emergency services in SNPNs Samsung R&D Institute India discussion

[R2-2107805](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107805.zip) Discussion on support of IMS voice and emergency services for SNPN vivo discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2107956](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107956.zip) Considerations for PWS and IMS emergency services in SNPNs Nokia, Nokia Shanghai Bell discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2108048](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108048.zip) Consideration on the emergency services for SNPN ZTE Corporation, Sanechips discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2108256](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108256.zip) Support of emergency services for SNPNs Ericsson discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2108499](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108499.zip) Support of emergency services for SNPN CMCC discussion Rel-17 NG\_RAN\_PRN\_enh

[R2-2108614](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108614.zip) Support of IMS voice and emergency services for SNPN Huawei, HiSilicon discussion Rel-17 NG\_RAN\_PRN\_enh-Core

[R2-2108337](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108337.zip) Removal of ETWS/CMAS restriction for SNPN Qualcomm Incorporated CR Rel-17 38.300 16.6.0 0385 - C TEI17

Moved from 8.22 to 8.16.4

[R2-2108342](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108342.zip) [DRAFT] LS on introduction of PWS support over SNPN Qualcomm Incorporated LS out To:SA, SA1, SA3, CT1, RAN2, RAN3 Cc:SA2, CT, RAN

Moved from 8.22 to 8.16.4

## 8.17 NR feMIMO

(NR\_feMIMO-Core; leading WG: RAN1; REL-17; WID: RP-211586)

Time budget: 0.5 TU

Tdoc Limitation: 2 tdocs

Email max expectation: 2 threads

Treat on-line first.

### 8.17.1 Organizational

Rapporteur input, incoming LS etc.

General

- Expect that RAN1 will produce RRC parameters spresdsheet and send to R2 from OCT meet.

- Chair/Rapporteur APs to trigger decision/discussion (after R1 October meeting) e.g. over reflector on having long post email discussion starting late.

Running CRs

W2 Fri: Samsung (rapporteur) – Need running CRs from next meeting, RRC (Ericsson), MAC (Samsung),

- Samsung think we should have RRC Running CR input based on R1 progress for next meeting.

- Intel think it might be a bit too early for RRC CR as the RRC model is not agreed.

- Chair: can maybe discuss based on the R1 output, there may be other parts than high level modelling to discuss. ANYWAY, even though we may have a RRC draft running CR as input, we need an open discussion on the modelling choices at next meeting.

LS in

[R2-2106936](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106936.zip) Reply LS to RAN1 LS on TCI State Update for L1/L2-Centric Inter-Cell Mobility (R3-212879; contact: Samsung) RAN3 LS in Rel-17 NR\_feMIMO-Core To:RAN1, RAN2, RAN4 Cc:RAN

- Samsung think R2 already provided some reply last meeting, and RP changed the scope. Think no action is needed.

- Ericsson wonder if the previous replies are applicable.

- Nokia think we can feedback the progress of this meeting.

* Noted, see later if/what we reply

[R2-2106961](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106961.zip) Reply to RAN1 LS on L1/L2-Centric Inter-Cell Mobility (R4-2108356; contact: Samsung) RAN4 LS in Rel-17 NR\_feMIMO-Core To:RAN1, RAN2

* Noted, see later if/what we reply

### 8.17.2 Support of Inter-Cell beam management

RAN2 impacts of inter-cell beam mgmt

[R2-2107948](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107948.zip) Multi-cell support for multi-TRP Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_feMIMO-Core

DISCUSSION

- LG agree with most observations, maybe not with proposals. Thikn the model involves over-specification for Rel-17, think it is better to just extend serving cell config for this release.

- Ericsson think there will not be a separate cell config, will be same HARQ entity etc, cannot have a separate cell config. Would be a R1 decision. Thikn we should wait for R1 RRC parameters before deciding model. Some questions to R1 are good, and we could ask them.

- Apple has same concern as Ericsson, don’t know if we should have same HARQ for different cell or not, would need R1 confirm. Think BWP model is better. Apple think that from the new WID it is clear that the UE cannot receive simultaneous from different cells.

- ZTE wonder what is the main difference between Acell and Scell. Is it mainly RNTI usage? Can maybe analyse all possible models: CA, BWP, different cell, just add to serving cell config.

- QC clarifies that multi-TRP are about sim transmission and inter cell BM are different. QC think we should discuss what the model should support. QC think we should support same HARQ process.

- vivo has similar view on the model that the proposed model here go beyond what we need. Can discuss higher layer signalling, e.g. how to switch. Think that unified TCI state req that UE manage TCIs from diff cells.

- CATT suggest to base the discussion on our agreed steps model, and make assumptions on which protocol level we touch.

- Samsung think we shall focus on function aspects in this meeting, and modelling can be decided later. Samsung think we should understand whether UE receives common channels also from the non-serving cell etc. if monitoring from these cells can be simultaneous.

- Nokia agree that the model can be done in different ways. Tried to be future proof. But functionality is first. Agree with Q from Samsung, on the reception from the different cells, Nokia think this is differnet to CA possibly some similarity to SUL.

P4:

- QC think we should add a question about HARQ. Think we should be careful if to ask for MTRP or inter cell bm. Nokia support ask about HARQ.

- Intel think that the questions are useful. Unlderstand that sim transmission is ony for DL, not UL, not clear how TCI works in UL DL association. Do we need different MAC fuctions ffor differnet TRPs, e.g. different TA, if RACH is needed, it we need PHR separate.

- Oppo are ok, but think that without terminology the questions are strange (assume something). Chair think Q need to be rephrased. Oppo think that we should separate between intra-cell BM and inter-cell BM.

- Xiaomi agree we should define first the HARQ model.

- Huawei think that the questions listed here will be given by RRC parameters, but think we can ask as indicated by Intel, also whether HARQ retransmissions work across these inter cell beams.

- ZTE think we should ask whether serving cell TRP transmission can be deactivated. Oppo wonder if this is just dedicated channel then. WID says TXRX from single cell

- LG think we will not progress if we don’t decide if this is a cell or a resource.

Work on an LS, offline

- Consider questions related to MAC, e.g. HARQ related (retransmissions between beams / HARQ process etc), other MAC aspects TA RACH PHR etc.

- Can also consider Questions in R2-2107948 P4, but they need to be re-phrased to not insinuate the particular model.

- Can ask about WID statement of TXRX from single cell, e.g. in the context of being conncted to serving cell.

- Can ask R1 to reply for both MTRP and inter-cell BM (if differnet)

- Terminology: either TRP with different PCI or TCI state with different PCI

* [AT115-e][051][feMIMO] LS out (Nokia)

Scope: LS out to R1, according to on-line discussion.

Intended outcome: Approved LS out

Deadline: EOM, Can CB W2 Wed or W2 Fri to address issues on-line if needed

Will extend [051] to 1 week short post email discussion for the LS out

* [Post115-e][051][feMIMO] LS out (Nokia)

Scope: Finalize LS out to R1, according to at meeting discussions.

Intended outcome: Approved LS out

Deadline: Short (not for RP)

* [AT115-e][052][feMIMO] RRC modelling (Intel)

Scope: Objective to list the main RRC modelling options and understand related limitations / pros / cons. If possible weed out unreasonable options if any.

Intended outcome: Report (Report to be submitted also to next meeting to serve as a baseline for discussions).

Deadline: EOM, Can CB W2 Wed or W2 Fri to address issues on-line if needed

[R2-2109206](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109206.zip) Report of [AT115-e][052][feMIMO] RRC modelling (Intel) Intel Corporation

DISCUSSION

- LG think that post meeting discussion may not be efficient as we need more input from R1. Xiaomi CATT ZTE and OPPO agrees.

- Oppo wonder about P1, think we focus mainly on intercell beam mgmt, think that R1 assumes that inter cell multi-TRP. Chair wonder then what is the main difference, is it only related to possibility for simultaneous RX TX. Huawei think a difference is also which TCI framework is used. Vivo agrees the TCI framework difference is a main point think we can focus on common parts, e.g. measurements. MTK think sim rx is the main difference.

- Ericsson think R1 input will resolve many things. Think Option 3 would be a natural baseline. Xiaomi agrees with Ericsson.

- Chair wonder if TCi frameworks has been discussed for better understanding. Intel think it is difficult to understand why frameworks would be different, but Sim RX and synch assumptions are different. Intel still think that from R2 perspective we can look for similarities. Differences in principle not so clear. Ericsson thikn there isn’t that much difference.

- QC think inter-cell mTRP can have less R2 impact, think for inter-cell beam mgmt we may need something new, but cannot decide until we have more input from R1. Samsung and Apple supports.

P3

- Huawei thikn we could have a late start long email discussion starting after R1 October meeting. CATT agrees

- Chair AP to trigger discussion e.g. over reflector (or just by rapporteur) whether to have post email discussion starting late (after R1 October meeting).

P5

- Oppo think Option 3 and Option 4 were the same. Intel think this was not clear, there were differences. A number of companies comments that Option 4 is similar to Option 1.

* FFS whether common framework is feasible to support both “inter-cell beam management” and “inter-cell multi-TRP” considering differences/similarities between two operations.
* R2 assumes at least TCI state information is required for TRP with different PCI.
* R2 further discuss RRC parameters based on RAN1 RRC parameters andor R1 reply LS.
* At R2 115-e the following RRC models is/were on the table: Option 1: Cell, Option 2: BWP, Option 3: beam resource (e.g. TCI state, QCL-info), Option 4: new structure (on high level similar to either of the other options)

Chair Comment: think this discussion was good and is a reasonable starting point for renewed discussion.

[R2-2107257](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107257.zip) Discussion on inter cell beam management OPPO discussion Rel-17 NR\_feMIMO

[R2-2107414](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107414.zip) Discussion on inter-cell beam management vivo discussion Rel-17 NR\_feMIMO-Core

[R2-2107554](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107554.zip) Discussion on multi-TRP operation Intel Corporation discussion Rel-17 NR\_feMIMO-Core

[R2-2107585](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107585.zip) L1/L2-centric inter-cell beam management Apple discussion Rel-17 NR\_feMIMO-Core

[R2-2107906](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107906.zip) Discussion on support of inter-cell multi-TRP operation Lenovo, Motorola Mobility discussion Rel-17

[R2-2108005](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108005.zip) On Inter-Cell beam management CATT discussion Rel-17 NR\_feMIMO-Core

[R2-2108269](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108269.zip) Discussion on the definition of the non-serving cell for the LS-in from RAN4 and RAN3 ZTE Corporation discussion Rel-17 NR\_feMIMO-Core

[R2-2108333](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108333.zip) UL Timing Alignment for Inter-cell multi-TRP like model DENSO CORPORATION discussion Rel-17 NR\_feMIMO-Core

[R2-2108442](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108442.zip) Support of inter-cell beam management Huawei, HiSilicon discussion Rel-17 NR\_feMIMO-Core

[R2-2108478](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108478.zip) Modeling of Inter-cell mTRP Qualcomm Incorporated discussion Late

[R2-2108632](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108632.zip) Considerations on the support of inter-cell beam management Samsung discussion NR\_feMIMO-Core

[R2-2108656](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108656.zip) Inter-cell mTRP LG Electronics discussion Rel-17

[R2-2108761](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108761.zip) Intial Discussion on potential RAN2 impact from Inter-cell mTRP ZTE Corporation, Sanechips discussion Rel-17 NR\_feMIMO-Core

[R2-2108802](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108802.zip) Serving cell measurement for mTRP Xiaomi Communications discussion Rel-17 NR\_feMIMO-Core

[R2-2108807](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108807.zip) On non-serving PCI related aspects of mTRP operation Ericsson discussion NR\_feMIMO-Core

[R2-2107369](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107369.zip) Discussion on the issue of L1L2 mobility Spreadtrum Communications discussion Rel-17

[R2-2107415](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107415.zip) Discussion on inter-cell MTRP operation vivo discussion Rel-17 NR\_feMIMO-Core

### 8.17.3 Other

Other RAN2 impacts

Beam Failure Handling

[R2-2107007](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107007.zip) Multi TRP Beam Failure Detection and Recovery Samsung Electronics Co., Ltd discussion Rel-17

DISCUSSION

- LG thikn R1 agreement include P1 P2 Support also P3, and P4. P5 is for offline discussion.

- QC has similar view as LG. Think we can agree P1-P4 discussion P5. ZTE agrees as well

- Xiaomi agree P1-P3. Think P4 relate to R1 FFS.

- Nokia also think 1-3 are ok, but woder if the word configuration is correct. For P4 has slightly different View.

- vivo agree w P1-P3

- Intel think P3 already makes some assumptions on the modelling.

* MAC entity maintains separate beamFailureDetectionTimer and BFI\_COUNTER for each BFD-RS set of a serving cell configured with multiple BFD-RS sets.
* beamFailureDetectionTimer and beamFailureInstanceMaxCount configuration is configured independently for each TRP of serving cell.
* If the MAC entity receives beam failure instance indication for a BFD-RS set of a serving cell, it shall perform the following:

- (re-)start beamFailureDetectionTimer corresponding to that BFD-RS set of the serving cell;

- increment BFI\_COUNTER corresponding to that BFD-RS set of the serving cell by 1.

- If BFI\_COUNTER >= beamFailureInstanceMaxCount corresponding to that BFD-RS set of the serving cell:

- trigger a BFR for the BFD-RS set of the Serving Cell;

* [AT115-e][053][feMIMO] Beam Failure Handling (Samsung)

Scope: Progress P4 P5 from R2-2107007. Can discuss also alternative options.

Intended outcome: Agreements, Report.

Deadline: EOM (can CB if needed)

[R2-2109159](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109159.zip) Report of [AT115-e] [053] [feMIMO] Beam Failure Handling Samsung

DISCUSSION

P1

- Samsung thikn R1 has agreed P1 already. ZTE support this.

- Ericsson thikn this is for both intra-cell and inter-cell cases. Samsung confirms that this is general

P2 P3

- Samsung thikn there are two companies with different view.

- ZTE support P2. Think R2 cannot make decision on P3, think if this is understanding we need LS.

- Huawei are ok with all of the the proposals. Wonder if this the scenario of intra-cell TRP only? Samsung think yes, this is the focus.

- Samsung think that R1 has already agrees that for single failed TRP MAC CE will be sent on the other TRP.

- QC think BFR would happen first on one TRP then on aonther TRP, wonder about the detailed triggering.

- LG support P2 P3 think aligned with legacy, and we confirm these. Revisit only if R1 decides something else

- Nokia think P2 is strightforward. For P3, thikn if one has failed, and then the other fail then we need P3.

- vivo also support P2 and P3. Vivo think that UE anyway need a period to evaluate BFD.

- Intel are also ok with P2 and p3, but think R2 need to work on the detailed triggering condition.

For the case of both intra cell and inter cell:

* BFD-RS set ID is included in BFR MAC CE to identify the failed TRP.

For the case of intra cell (FFS for inter cell).

* If beam failure is detected on both TRPs (i.e. BFD-RS sets) of an SCell, BFR is triggered for that SCell.

- FFS whether UE transmits a) legacy BFR MAC CE or b) new BFR MAC CE indicating both failed TRPs as well as the beam failure recovery information for both TRPs.

* If beam failure is detected on both TRPs (i.e. BFD-RS sets) of SpCell, random access procedure is initiated on SpCell.

- FFS whether UE transmits a) legacy BFR MAC CE or b) new BFR MAC CE indicating both failed TRPs as well as the beam failure recovery information for both TRPs.

* FFS what is meant in detail by “beam failure is detected on both TRPs”

Not Treated

[R2-2107655](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107655.zip) RAN2 impacts of beam failure detection and recovery Fujitsu discussion Rel-17 NR\_feMIMO-Core

[R2-2108246](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108246.zip) Beam failure with mTRP Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_feMIMO-Core

[R2-2108655](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108655.zip) BFD and BFR for feMIMO LG Electronics discussion Rel-17

[R2-2107832](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107832.zip) Discussion on RAN2 impacts of TRP-specific BFR OPPO discussion Rel-17 NR\_feMIMO-Core

[R2-2107907](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107907.zip) Beam failure recovery in multi-TRP Lenovo, Motorola Mobility discussion Rel-17

[R2-2107995](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107995.zip) Discussion on multi-TRP BFR and new MIMO MAC CE Qualcomm Incorporated discussion Rel-17 NR\_feMIMO-Core

[R2-2108443](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108443.zip) Support of multi-TRP Huawei, HiSilicon discussion Rel-17 NR\_feMIMO-Core

[R2-2108806](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108806.zip) Overview of RAN2 impacts for BFR and BFD for mTRP operation Ericsson discussion NR\_feMIMO-Core

## 8.18 RACH indication and partitioning

Time budget: Equivalent to 0.5-1 TU

Tdoc Limitation: 1 tdocs

Expected to cover WIs SDT, CovEnh, RedCap, RAN slicing .. Initial discussion on what should be treated in common and what design could be common.

[R2-2107009](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107009.zip) Common aspects of RACH Samsung Electronics Co., Ltd discussion Rel-17 NR\_cov\_enh-Core, NR\_SmallData\_INACTIVE-Core, NR\_slice-Core

[R2-2107058](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107058.zip) Discussion on RACH Partitioning in Rel-17 vivo discussion NR\_SmallData\_INACTIVE-Core, NR\_cov\_enh, NR\_redcap-Core, NR\_slice-Core

[R2-2107219](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107219.zip) Unified RACH indication and partitioning Qualcomm Incorporated discussion Rel-17

[R2-2107244](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107244.zip) RACH partitioning common design for Rel-17 features Beijing Xiaomi Software Tech discussion Rel-17

[R2-2107256](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107256.zip) Discussion on PRACH partitioning OPPO discussion Rel-17

[R2-2107484](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107484.zip) RRC and MAC related aspects of common RACH configuration ZTE Corporation, Sanechips discussion

[R2-2107552](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107552.zip) Common aspects of RACH partitioning Intel Corporation discussion Rel-17 NR\_cov\_enh-Core, NR\_slice-Core, NR\_SmallData\_INACTIVE-Core

[R2-2107575](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107575.zip) Cross-WI RACH Design Apple discussion Rel-17 NR\_cov\_enh-Core, NR\_slice-Core, NR\_SmallData\_INACTIVE-Core, NR\_redcap-Core

[R2-2107835](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107835.zip) RACH indication and partitioning InterDigital, Europe, Ltd. discussion Rel-17

[R2-2108004](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108004.zip) On RACH indication and partitioning CATT discussion Rel-17 NR\_cov\_enh-Core, NR\_slice-Core, NR\_SmallData\_INACTIVE-Core, NR\_redcap-Core

[R2-2108138](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108138.zip) General aspects of RACH indication and partitioning NEC discussion Rel-17 NR\_redcap-Core, NR\_cov\_enh-Core, NR\_SmallData\_INACTIVE-Core, NR\_slice-Core

[R2-2108210](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108210.zip) RACH indication and partitioning Huawei, HiSilicon discussion Rel-17 NR\_SmallData\_INACTIVE-Core, NR\_slice-Core, NR\_redcap-Core, NR\_cov\_enh-Core

[R2-2108253](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108253.zip) RACH partitioning for Rel-17 features Ericsson discussion Rel-17

[R2-2108760](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108760.zip) Discussion on RACH partitioning in Rel-17 LG electronics Inc. discussion Rel-17 NR\_SmallData\_INACTIVE-Core, NR\_slice-Core, NR\_redcap-Core, NR\_cov\_enh-Core

## 8.19 Coverage Enhancements

(NR\_cov\_enh-Core; leading WG: RAN1; REL-17; WID: RP-211566)

Time budget: 0.5

Tdoc Limitation: 1 tdocs

Common aspects related to RACH indication (in MSG1) / RACH partitioning shall be submitted to 8.18

[R2-2107220](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107220.zip) RAN2 enhancements for Msg3 repetition Qualcomm Incorporated discussion Rel-17 NR\_cov\_enh-Core

### 8.19.1 Organizational

Rapporteur input, incoming LS etc.

[R2-2107456](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107456.zip) Work plan for NR coverage enhancements China Telecommunication discussion Rel-17 NR\_cov\_enh-Core

### 8.19.2 General

RAN2 impact tech proposals.

[R2-2107008](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107008.zip) MAC Aspects of UL Coverage Enhancements Samsung Electronics Co., Ltd discussion Rel-17 NR\_cov\_enh-Core

[R2-2107059](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107059.zip) Discussion on RAN2 Impacts of Msg3 Repetition vivo discussion NR\_cov\_enh

[R2-2107080](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107080.zip) Discussion on higher layer aspects of coverage enhancements OPPO discussion Rel-17 NR\_cov\_enh-Core

[R2-2107745](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107745.zip) Consideration on Msg3 repetition in CE ZTE Corporation, Sanechips discussion Rel-17 NR\_cov\_enh-Core

[R2-2108003](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108003.zip) On support of Type A PUSCH repetitions for Msg3 CATT discussion Rel-17 NR\_cov\_enh-Core

[R2-2108273](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108273.zip) On RAN2 impacts for coverage enhancements and Type A PUSCH repetitions for Msg3 Ericsson discussion Rel-17 NR\_cov\_enh

[R2-2108294](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108294.zip) RAN2 aspects of Msg3 PUSCH repetition Intel Corporation discussion Rel-17 NR\_cov\_enh-Core

[R2-2108604](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108604.zip) Discussion on the support of Msg3 PUSCH repetitions Huawei, HiSilicon discussion Rel-17 NR\_cov\_enh-Core

[R2-2108747](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108747.zip) Discussion on RACH with coverage enhancement LG Electronics Inc. discussion Rel-17 NR\_cov\_enh-Core

## 8.20 Extending NR operation to 71GHz

(NR\_ext\_to\_71GHz-Core; leading WG: RAN1; REL-17; WID: RP-211584)

Time budget: 0.5

Tdoc Limitation: 2 tdocs

Note: RAN2 is to prioritize protocol support of RAN1 design and not on optimizations on items not discussed in RAN1

### 8.20.1 Organizational

Rapporteur input, incoming LS etc.

[R2-2106917](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106917.zip) LS on how to introduce the 52.6-71GHz frequency range (R1-2106277; contact: Lenovo) RAN1 LS in Rel-17 NR\_ext\_to\_71GHz-Core To:RAN Cc:RAN2, RAN4

[R2-2106954](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106954.zip) LS on RAN4 recommendation for the 52.6 - 71 GHz frequency range designation (R4-2107879; contact: Huawei) RAN4 LS in Rel-17 NR\_ext\_to\_71GHz-Core To:RAN Cc:RAN1, RAN2, RAN5

[R2-2108476](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108476.zip) Workplan for Rel-17 WW Extending NR operation to 71GHz Qualcomm Incorporated, Intel Corporation Work Plan

### 8.20.2 General

RAN2 impact tech proposals.

[R2-2107060](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107060.zip) Discussion on RA(MsgB)-RNTI Design for Beyond 52.6GHz vivo discussion NR\_ext\_to\_71GHz-Core

[R2-2107061](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107061.zip) Discussion on Consistent LBT Failure Detection for Beyond 52.6GHz vivo discussion NR\_SmallData\_INACTIVE-Core

[R2-2107255](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107255.zip) High layer impacts of beyond 52.6GHz OPPO discussion

[R2-2107266](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107266.zip) Analysis of RAN2 impacts of Ext 52-71GHz Huawei, HiSilicon discussion Rel-17 NR\_ext\_to\_71GHz-Core

[R2-2107267](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107267.zip) Discussion about capability issues for Ext 52-71GHz Huawei, HiSilicon discussion Rel-17 NR\_ext\_to\_71GHz-Core

[R2-2107475](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107475.zip) Aspects of CA operation and protocol impact Ericsson discussion Rel-17 NR\_ext\_to\_71GHz-Core

[R2-2107476](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107476.zip) RRC impact due to FR2-1 and FR2-2 distinction Ericsson discussion Rel-17 NR\_ext\_to\_71GHz-Core

[R2-2107479](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107479.zip) Impact of high SCS on RA-RNTI calculation ZTE Corporation, Sanechips discussion

[R2-2107480](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107480.zip) RAN2 impact for LBT for operation up to 71 GHz ZTE Corporation, Sanechips discussion

[R2-2107551](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107551.zip) RAN2 impact on extending NR operation to 71GHz Intel Corporation discussion Rel-17 NR\_ext\_to\_71GHz

[R2-2107792](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107792.zip) In-device coexistence for NR above 52.6GHz Charter Communications, Inc discussion

[R2-2107963](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107963.zip) Discussion on RLC RTT and L2 buffer size Samsung discussion Rel-17

[R2-2107964](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107964.zip) Impact of higher SCS on RLC operation Samsung discussion Rel-17

[R2-2107985](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107985.zip) FR2-2 considerations Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_ext\_to\_71GHz-Core

R2-2108477 Upper Layer impacts of extending NR operation to 71GHz Qualcomm Incorporated discussion Late

[R2-2108745](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108745.zip) Consideration on potential RACH impact LG Electronics Inc. discussion Rel-17 NR\_ext\_to\_71GHz-Core

[R2-2108746](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108746.zip) Consideration on potential LBT impact LG Electronics Inc. discussion Rel-17 NR\_ext\_to\_71GHz-Core

## 8.21 TEI17

Time budget: 1 TU

This Agenda item is for technical enhancements (of some importance) not covered elsewhere. Corrections to a R16 WI or a R15 WI, e.g. a normal correction to earlier release WI which is only proposed for R17 shall be submitted under the agenda item for the applicable R16 WI or R15 WI (but preferably later).

Note that TEI17 CRs may be agreed-in-principle for postponed final agreement when R17 TSes are to be created.

Documents under this AI will be treated on-line first.

### 8.21.1 TEI proposals initiated by other groups

Including incoming LSes

gNB ID Length

[R2-2106947](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106947.zip) Reply LS on broadcasting gNB ID length in system information block (R3-212966; contact: Ericsson) RAN3 LS in Rel-17 TEI17 To:RAN2

- Huawei think R3 shold make a decision. RAN2 has already replied that it is technically feasible. LG agree with Huawei, think R3 should decide first. QC has same understanding. Vivo agrees as well.

* Noted
* R2 already replied that this is feasible for new UEs. it should be possible for R3 to decide based on that. R2 will wait for R3 decision.

[R2-2108303](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108303.zip) On broadcasting gNB ID length in system information block and associated CGI reporting (reply to RAN3 LS R3-212966) Ericsson discussion

* Noted

[R2-2108640](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108640.zip) Discussion on broadcasting gNB ID length in system information block Huawei, HiSilicon discussion Rel-17 TEI17

* Noted

[R2-2108298](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108298.zip) [gNB\_ID\_Length] On the inclusion of gNB ID length in the NR CGI report Ericsson CR Rel-17 36.331 16.5.0 4710 - B TEI17

[R2-2108300](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108300.zip) [gNB\_ID\_Length] On the inclusion of gNB ID length in the NR CGI report Ericsson CR Rel-17 38.300 16.6.0 0384 - B TEI17

[R2-2108301](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108301.zip) [gNB\_ID\_Length] On the inclusion of gNB ID length in the NR CGI report Ericsson CR Rel-17 38.331 16.5.0 2764 - B TEI17

[R2-2108313](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108313.zip) [Draft] Reply LS on broadcasting gNB ID length in system information block Ericsson LS out TEI17 To:RAN3

E-CID

Chair comment: R2 will treat this topic only if explicitily requested by R1

[R2-2108409](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108409.zip) NR positioning support for TA-based positioning in E-CID (TEI) Ericsson discussion

### 8.21.2 TEI proposals initiated by RAN2

Tdoc Limitation: 2 tdocs for non-operators, no limit for operators (note that the limitation is counted towards the first company in the list for multi-sourced tdocs)

Note that proposals requires significant support and that the issue to resolved can be made clear. Proposals with low number of co-signers may deprioritized. TEI is not indended as a second chance for any earlier rejected proposal, so proposals that overlap with scope of an ongoing WI, or proposals that has earlier been rejected may be additionally scrutinized.

Withdrawn:

R2-2107225 Introduction of sensor-LocationInfo for LTE MDT KDDI Corporation discussion Withdrawn

[R2-2108408](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108408.zip) On the need of providing explicit SI start position for SI Scheduling Ericsson discussion Withdrawn

### 8.21.2.1 CP centric

MobState cell reselection for HSDN

[R2-2108501](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108501.zip) Mobility-state-based cell reselection to support NR High Speed railway Dedicated Network (HSDN) CMCC, CATT, Ericsson, Huawei, ZTE, OPPO, vivo discussion Rel-17 TEI17

DISCUSSION

- QC support this. Is there R4 impact? CMCC indicate that same as LTE there is no impact to R4.

- LG support to resue this solution for NR. Can this feature be used for FR2 cells? CMCC has no strong opinion on the applicability for FR2. Think it is general.

- Lenovo wonder for Inter-RAT cell reselection should be counted? There was earlier discussed and decided to be left to UE impl. LG think this can be left for UE impl, no need to specify for this.

- Nokia think this is copy-paste of LTE solution to NR, and for LTE inter\_RAT cell reselection is not counted, but this may not be very relevant, IRAT cell reselection should be rare.

- Nokia have comments on the CRs.

- Lenovo wonder about the direction of IRAT reselection. CMCC think it may be considered to support both direction but that would require a LTE RRC CR.

- Apple wonder whether we need a UE capability. CMCC think in LTE there is no signalled capability. NR could use the same way. CMCC think we may need to check whehterh a CR is needed, in any case no signalling is needed.

* Introduce 1 bit indication in SIB1 to indicate the NR HSDN cell, same as LTE.
* HSDN neighbouring cell list with PCI(s) can be provided in SIB for intra-frequency, inter-frequency, and inter-RAT cell reselection, same as LTE.
* the number of equivalent cells can be indicated for MSE in SIB2, same as LTE.
* When the HSDN capable UE is in High-mobility state, the UE shall always consider the HSDN cells to be the highest priority (i.e., higher than any other network configured priorities), same as LTE.
* When the HSDN capable UE is not in High-mobility state, the UE shall always consider HSDN cells to be the lowest priority (i.e., lower than network configured priorities), same as LTE
* Discuss and check the CRs in a post meeting email discussion, CRs for next meeting

[R2-2108502](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108502.zip) 38.331 CR to introduce mobility-state-based cell reselection for NR HSDN CMCC, CATT, Ericsson, Huawei, ZTE, OPPO, vivo draftCR Rel-17 38.331 16.5.0 TEI17

[R2-2108503](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108503.zip) 38.304 CR to introduce mobility-state-based cell reselection for NR HSDN CMCC, CATT, Ericsson, Huawei, ZTE, OPPO, vivo draftCR Rel-17 38.304 16.5.0 TEI17

Additional Measurements

[R2-2108670](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108670.zip) Reduce the blind redirection for EPS Fallback vivo, China Telecom, CMCC, China Unicom discussion Rel-17

DISCUSSION

- LG wonder if the intention is that Idle UE will measure LTE for fallback purpose. Vivo confirms yes.

- Huawei would like to understand first. Is there an intention to reuse DCCA early measurement or further enhanced. Vivo think some furher change is needed.

- Nokia think this is difficult to comment, and it is not so good to study different solutions in TEI

- Ericsson think the figure is pessimistic, there is SIP signalling and the UE can know, vivo think that in any case NB configured measurement is too late.

- ZTE think that fallback is also applicable to Connected, do we need to consider connected? Vivo think the issue is less for connected, and is not needed. ZTE think the situation is the same.

- QC think there are some benefits but some clarifications needed, think requirements for Idle measurements are less accurate and can result in failure.

- CMCC indeed see issues that EPS fallback may take long time and are supportive for optimizations.

- Verizon think this area is important, but at the same time, the real numbers are not as bad as in this paper.

- Vodafone think this is important and useful and think this should be addressed.

Chair: Seems to be significant Operator interest. Lot of questions on what is actiually proposed and how complex it may be. Can come back next meeting.

* Noted

[R2-2107259](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107259.zip) Discussion on Idle/Inactive Measurement for Load Distribution NTT DOCOMO INC. discussion

DISCUSSION

- LG wonder about the motivation, there is in LTE, multi-carrier load distribution (MCLD). Why use early measurements instead of MCLD.

- Ericsson support this.

- Huawei could consider this, as it may be useful for mobility.

- QC think the motivation is stronger for previous doc, but solution could be the same. Still concerned about measurement accuracy.

- Nokia wonder if this would invovle e.g. new R4 requirements.

- Docomo would like to remove the filtering out or non-DCCA carriers, don’t think there are R4 requirements impact but could discuss this aspect.

- OPPO wonder is this means that UE will report these measurements for this purpose, How will the UE know that the network require these measurments?

- Docomo think that if we can reuse R4 requirements then we can discussion.

Chair: Limited support but comments that maybe solution could be the same as for previous.

* Noted

SI capacity

[R2-2108805](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108805.zip) On the need of providing explicit SI start position for SI Scheduling Ericsson, Verizon discussion Rel-17

- Ericsson indicate that motivation has been clarified and the solution is not bw compatible.

- Verizon indicate that main interest is for DSS, shared bands.

- QC think that the proposal is to used for R16 SIBs how can that be BW compatible. QC are open to do this for Postiioning SIBs.

- Nokia think that the main issue is the coexist with current solution, if it is really compatible it can be considered.

- Oppo think that there is alredy a feasible solution that 80ms period may be a solution, so why do we need this. Ericsson think this was a hack for LTE.

- MTK think this could be addressed if there is a confirmed problem. Operators should help. Huawei agrees

- Apple think that pos SI could be corrected (another solution). Apple ok to discuss furher for Pos SI.

- Huawei think that BW compatibliyt also for positioning is an issue.

Chair: Limited support, Chair is concerned that no one seems to comment on the problem, which looks serious in the described paper. Can give companies another chance to evaluate.

* Noted

Misc

[R2-2108696](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108696.zip) Common Cell Configuration for Signaling Reduction in NR CATT, Verizon, CMCC, Huawei, HiSilicon discussion Rel-17 TEI17

[R2-2109034](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109034.zip) Common Cell Configuration for Signaling Reduction in NR CATT, Verizon, CMCC, Huawei, HiSilicon, Samsung discussion Rel-17 TEI17

DISCUSSION

- Oppo wonder if all solutions are based on same parameters values, is this an observation from field or not? This reduces flexibility.

- CATT think that the issue has been observed.

- Verizon indicate that the configuration is very large, can verify that configurations are very similar. Overhead can be cut many-fold, to a fraction.

- Nokia are positive on this, would this also make this faster? RRC processing time requirements? CATT think the configuration can be faster, not sure whether RRC processing time could be reduced.

- Ericsson think the time is very implementation dependant. In general it would be good to unsderstand the problem more exactly. And How much is really common? How much can really be saved. Should have some analysis to justify this,

- Apple think that from implementation point of view, this proposal increases the time, and having the same configurations across cells incl BWP may not be practical.

- Intel think there are other solutions, e.g. PCell could be a template. CATT are open and don’t really propose that LTE solution must be done.

Chair: Some support, lot of questions, and not very strong motivation. For fruitful discussions need better understanding on what really is the issue to focus on. It seems there could be different solutions.

* Noted

[R2-2108814](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108814.zip) On the support of NG-based handover using CGI report Huawei, HiSilicon, CMCC, China Telecom, China Unicom discussion Rel-17 TEI17

DISCUSSION

- CMCC think that for Xn not available then this cannot be known.

- Apple think that possibley all the cells on a freq may support same kind of bandwidths

- ZTE think there is another possible solution, think this can be added in the NG interface.

- MTK has question on SCS, think this need to be configured first in order to detect and measure.

- Nokia wonder if this is putting the burden on the src node to check? Usually the target check this in current HO procedures.

- LG wonder if the RAN3 solution has been considered.

- Ericsson think a closely related issue has been discussed in R3, and think a new cause value has been introduced.

- Huawei think that for Apples comment, this is mainly for interfreq case. On R3 solution, thikn the problem can only be known after the procedure fail. Think the eNB should not decode the NR capability. Think the src node can prevent the failure.

- Chair: It seems the issue and the optinons need to be better understood before decision.

* Noted

[R2-2107637](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107637.zip) User preferences to control location information sharing Apple, Samsung, Google, Xiaomi, Mediatek, Vivo discussion Rel-17

[R2-2109044](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109044.zip) User preferences to control location information sharing Apple, Samsung, Google, Xiaomi, Mediatek, Vivo, BT discussion Rel-17

- RLF and connection failure reports the UE is requested to provide location info, and the statement “if available” is not well defined. Apple confirms that a key question is whethter “if available” covers the case that user preferences makes this info not available.

- CMCC disagree with this. Think if available is straight-forward since LTE. Think that for MDT user consent is there. In R16 if user send user consent then it is mandatory to send location info. Nokia Huawei agrees with CMCC.

- Apple think user consent only cover MDT not SON. Nokia thin that over the radio interface there is no difference between Son and MDT. LG agrees with Nokia

- Chair: Some opposition, several companies think there is no issue. Can still attempt to figure out whether there is an issue. Reasoning: Privacy is important (no question about that). It may also be important to have some consistency in handling which has been recognized for MDT and location info is essential for several use cases.

* Noted

[R2-2107023](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107023.zip) UE assistance information configuration in RRCResume message OPPO discussion Rel-17 TEI17

[R2-2108130](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108130.zip) Specification release filtering for NR UE capabilities Huawei, HiSilicon discussion Rel-17

[R2-2108403](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108403.zip) RRC processing delay for DL RRC segmentation Ericsson discussion Rel-17 TEI17

[R2-2108347](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108347.zip) Improved granularity for the number of PDSCH HARQ processes Nokia, Nokia Shanghai Bell discussion Rel-17 TEI17 R2-2104987

[R2-2107024](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107024.zip) Security algorithms update in RRC reestablishment message OPPO discussion Rel-17 TEI17

[R2-2107815](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107815.zip) User Plane Integrity Protection Nokia, Nokia Shanghai Bell discussion Rel-17 TEI17

### 8.21.2.2 UP centric

[R2-2107416](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107416.zip) C-DRX enhancements for 5G applications vivo, CMCC, China Telecom, Guangdong Genius, Spreadtrum, China Unicom discussion Rel-17 TEI17

DISCUSSION

- LG think indeed this was extensively discussed, are reluctant to go back, Question is whether the intention is to have two kinds of timer values. Vivo’s intention is to have only one type of timer value, are open for the solution. Vivo think this was not properly discussed for NR.

- CMCC thikn this is an issue for some configurations and think it should be addressed. China Telecom agrees.

- Huawei understand that this could be covered in XR scope for R18. Ericsson agrees. ZTE agrees.

- Ericsson wonder if this is for TDD configurations where the length of TDD DL and DRX awakr is different. Is the DRX cycle really optimally chosen here. Vivo think the examples in the document is based on real deployment configurations.

- ZTE think we can just expand the onduration time to cover the cases in the document.

- Nokia think this might not work with Dynamic TDD. Samsung agrees with Nokia and think this was chosen for the purpose of flexible slots.

- MTK has some sympathy with the proposal, and think the only current solution is as ZTE point out to have long on-duration. Support to look at this.

- Chair: Am concerned that this may bring an extensive and non-trivial discussion. The work “study” in the proposal seems well chosen.

- Chair: Given the comments and concern, cannot decide to have this vague direction level proposal. Not clear whether a detailed proposal could be more agreeable.

* Noted

[R2-2107221](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107221.zip) C-DRX enhancement for XR/CG applications Qualcomm Incorporated, Verizon Wireless, Facebook discussion Rel-17 TEI17

=> Revised in R2-2108850

[R2-2108850](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108850.zip) C-DRX enhancement for XR/CG applications Qualcomm Incorporated, Verizon Wireless, Facebook, MediaTek discussion Rel-17 TEI17

DISCUSSION

- Ericsson wonder if this proposal should be in Rel-18 instead. Think we may need to check the details. Intel agrees with Ericsson think R1 need to conclude Si, think also that gNB doesn’t know the period. Huawei has similar view, and think the options were proposed in R1 SI and prefer to have this in R18 XR. Apple as well would like to address the complete solution in R18. Would like to avoid multiple solutions in the end.

- QC proposes this now because there is an urgency in the market, for Rel-17. Battery life is critical for pre-rel-18 product launch.

- ZTE think that XR is periodic service and can be served by SPS and this is not impacted by DRX.

- vivo support this enhancement. Think that all three solutions need to be discussed, not just the one in the final revision.

- QC: think this doesn’t preclude companies to Study more things for R18, think if we agree this now we free up some time for R18 to discuss other things.

- Chair: It seems difficult to agree to this, a number of companies want to postpone to Rel-18, e.g. to check more the traffic patterns or to ensure full consistent solution(s). Inclined to reject this for R17. Can allow the proponents some possibility for furher offline lobbying. Should not CB unless situation has changed, i.e. wider support and low/no objections to do this in R17.

* Noted

[R2-2108233](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108233.zip) Enhanced DRX inactivity timer operation for UE power saving MediaTek Inc. discussion Rel-17 TEI17

=> Revised in R2-2109019

R2-2109019 Enhanced DRX inactivity timer operation for UE power saving MediaTek Inc., Qualcomm discussion Rel-17 TEI17 R2-2108233

[R2-2108720](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108720.zip) UE assistance information for UL pre-scheduling MediaTek Inc. discussion Rel-17

=> Revised in R2-2109020

R2-2109020 UE assistance information for UL pre-scheduling MediaTek Inc., Qualcomm discussion Rel-17 R2-2108720

[R2-2107542](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107542.zip) Adaptation of QoS Flow to DRB Mapping for MDBV Enforcement Futurewei discussion Rel-17

[R2-2107543](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107543.zip) Activation/Deactivation of QoS Flow to DRB Mapping for SMBR Enforcement Futurewei discussion Rel-17

## 8.22 NR R17 Other

Time budget: 1.6 TU (also R1 misc and R4: NR\_RF\_TxD-Core)

Includes items and topics without specific R2 Agenda Item. Includes LS in for R17 items not in a specific R2 Agenda Item. In general incoming LSes are always treated with high priority regardless if specific AI or TU allocation exists.

LS in with no action

[000] LSes below are all proposed to be Noted without presentation. Comments, if any can be provided in discussion [000].

[R2-2106910](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106910.zip) LS response on New Standardized 5QIs for 5G-AIS (Advanced Interactive Services) (R1-2106149; contact: Qualcomm) RAN1 LS in Rel-17 FS\_5GXR, FS\_XRTraffic, 5G\_AIS To:SA2, SA4 Cc:RAN2

[R2-2106927](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106927.zip) Reply LS to CT4 on Information on the port number allocation solutions (R3-212800; contact: Huawei) RAN3 LS in Rel-17 FS\_PortAl To:CT4 Cc:SA4, CT3, SA5, SA, CT, RAN, SA2, RAN2

[R2-2106939](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106939.zip) Response LS on Handover terminology (R3-212907; contact: Nokia) RAN3 LS in E\_HOO To:SA5 Cc:RAN2

[R2-2106965](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106965.zip) Reply LS to SA4 on UE Data Collection (S2-2104864; contact: Qualcomm) SA2 LS in Rel-17 eNA\_Ph2 To:SA4 Cc:RAN2, SA3, SA6

[R2-2106978](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106978.zip) Reply LS to SA2 on UE Data Collection (S4-210961; contact: Qualcomm) SA4 LS in Rel-17 EVEX To:SA2 Cc:CT3, RAN2, SA3, SA6

* [000] the 5 LSes above are Noted

Minimization of service interruption at disaster condition

Treat offline first

* [AT115-e][031][NR17] MINT (Nokia)

Scope: Ph1: Treat papers under 8.22 on MINT (this section), Determine agreeable points. Closed W1

Ph2: Reply LS

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

Deadline: Ph2 Aug 26 (No online CB is planned).

CB Friday W1

[R2-2109058](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109058.zip) Report of email discussion [AT115-e][031][NR17] MINT Nokia, Nokia Shanghai Bell

DISCUSSION

- Ericsson think P1 is sufficient. CATT support P1. Samsung.

- QC think there are a couple of questions, e.g. if we need differentiation at Access category level. We need clarifications.

- Lenovo think we should not ask CT1 to decide, but would be ok to say final conclusion will be later in R2.

- LG think R2 shall not recommend. LG think CT1 may select. Apple agrees

* RAN2 send a reply LS to CT1 with feedback that both Solutions (#38 and #40) are feasible, including RAN2 observations and questions. Can indicate that RAN2 could not recommend solution at this point in time.

[031] Phase 2:

[R2-2109173](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109173.zip) Reply LS on UAC enhancements for minimization of service interruption when disaster condition applies (C1-213527; contact: Nokia)         CT1      LS in     Rel-17   FS\_MINT-CT      To:RAN2           Cc:SA1

* [031] LS out is approved

Treated in [031]

[R2-2106902](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106902.zip) LS on UAC enhancements for minimization of service interruption when disaster condition applies (C1-213527; contact: Nokia) CT1 LS in Rel-17 FS\_MINT-CT To:RAN2 Cc:SA1

[R2-2106974](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106974.zip) Reply LS to LS on broadcasting from other PLMN in case of Disaster Condition (S3-212258; contact: LGE) SA3 LS in Rel-17 FS\_MINT-CT To:CT1 Cc:RAN2

[R2-2107184](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107184.zip) Discussion on UAC for service interruption minimization during disaster OPPO discussion Rel-17 FS\_MINT-CT

[R2-2107264](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107264.zip) Discussion of the MINT solutions #38 and #40 Lenovo, Motorola Mobility discussion Rel-17 FS\_MINT-CT

[R2-2107590](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107590.zip) Discussion on UAC enhancement for MINT Apple discussion Rel-17 FS\_MINT-CT

[R2-2107840](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107840.zip) Draft LS reply on UAC enhancements for minimization of service interruption when disaster condition applies vivo LS out Rel-17 To:CT1 Cc:SA1

[R2-2107841](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107841.zip) UAC enhancements for minimization of service interruption when disaster condition applies vivo discussion Rel-17

[R2-2108366](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108366.zip) RAN2 aspects for MINT Ericsson discussion Rel-17 FS\_MINT-CT

[R2-2108633](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108633.zip) Considerations on the UAC enhancements when disaster condition applies Samsung discussion FS\_MINT-CT

[R2-2108639](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108639.zip) Discussion on on UAC enhancements for minimization of service interruption when disaster condition applies Huawei, HiSilicon discussion Rel-17 FS\_MINT-CT

[R2-2108762](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108762.zip) UAC for minimization of service interruption when disaster condition applies ZTE corporation, Sanechips discussion Rel-17 FS\_MINT-CT

[R2-2108763](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108763.zip) draft reply LS on UAC enhancements for minimization of service interruption when disaster condition applies ZTE corporation, Sanechips LS out Rel-17 FS\_MINT-CT To:CT1 Cc:SA1

[R2-2108818](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108818.zip) Draft reply LS to CT1 on UAC extensions for MINT ([R2-2106902](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106902.zip)/C1-213527) Nokia Poland discussion Rel-17

Moved from 8.21.1 to 8.22

* [031] 12 tdocs above are Noted

Security protection for RRC Resume

Treat offline first

* [AT115-e][032][NR17] Security protection RRC Resume (Apple)

Scope: Ph1: Treat papers under 8.22 on Security protection for RRC resume (this section), Determine agreeable points. Closed CB W1

Ph2: Reply LS and Draft CRs.

Intended outcome: Ph1: Report, Ph2 Approved LS out

Deadline: Ph2 Aug 26 (no online CB is planned)

CB Friday W1

[R2-2109054](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109054.zip) [AT115-e][032][NR17] Security protection RRC Resume (Apple) Apple

DISCUSSION

- QC think the proposals are ok. We need to indicate in the LS that resume/est/ etc cause can be indicated implicitly by RACH (in R17), and there is no way to protect this. Could ask SA3 to explain the reasons.

- ZTE agree with QC. SA3 seems to be unaware of R17 development in R2.

- Intel think this may still be worth doing even if RACH cause is exposed by RACH etc.

- Intel think we don’t need to agree on P2.

- OPPO don’t understand why this is needed.

- Huawei are ok to include the candidate solutions.

P1/P2

- Chair think that if we angree anything we could label these “initial conclusions”.

Other

- Chair wonder if we can explain that cause values are sent also in other ways unprotected, e.g. by RACH resource selection (added R17), e.g. in RRC establishment (legacy).

- Huawei would not like to do this. Apple think that SA3 are evaluating different risks, and if SA3 need our help they can ask. CATT agrees.

- Nokia would be ok to include this.

- Xiaomi think that SA3 has a study item and other issues can be addressed.

* The solution is technically feasible from RAN2 perspective. However, RAN2 observed that the solution spans multiple WGs (i.e. RAN2 and RAN3), and thus it should be first discussed in RAN Plenary if SA3 decides to support it in R17.

RAN2 initial conclusions:

* 1: The feature requires the support of the UE, the anchor gNB and the new serving gNB.
* 2: The possible solutions of the capability negotiation between UE and gNBs to support the feature as follows: (as the RAN2 response to SA3 Q1 and Q2)

<The UE’s capability>

2.1: The UE indicates its capability in the AS capability and reports to network via RRC signaling;

2.1a: The UE enables the feature only when it knows both anchor gNB and new serving gNB support it;

<The anchor gNB’s capability>

2.2: The anchor gNB indicates its capability via the RRC dedicated configuration (i.e. RRCRelease with SuspendConfig) or the SIB (depending on the method);

2.2a: The anchor gNB only performs the new ResumeMAC-I verification when the UE is configured with the new feature and the new serving gNB indicates its support for the new ResumeMAC-I.

<The new serving gNB’s capability>

2.3: The gNB as the new serving gNB role indicates its capability via SIB or binds its capability together with the anchor gNB’s capability (depending on the method);

2.3a: How to indicate the new serving gNB’s capability to the anchor gNB should be discussed in RAN3.

* RAN2 observed that cause values can be exposed also in other ways unprotected, e.g. by RACH resource selection (added R17), e.g. in RRC connection establishment (legacy), but there is no consensus to include such additional information in the LS out.

Treated in [032]

[R2-2106977](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106977.zip) LS on security protection on RRCResumeRequest message (S3-212349; contact: Apple) SA3 LS in Rel-17 FS\_5GFBS To:RAN2

[R2-2107299](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107299.zip) Discussion and Response on SA3 LS on new ResumeMac-I calculation Intel Corporation discussion Rel-17 FS\_5GFBS

[R2-2107483](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107483.zip) On the security protection of RRCResumeRequest message ZTE Corporation, Sanechips discussion

[R2-2107574](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107574.zip) The security protection on RRCResumeRequest Apple Inc, Ericsson Inc discussion Rel-17 FS\_5GFBS

[R2-2107842](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107842.zip) Draft LS reply on security protection on RRCResumeRequest message vivo LS out Rel-17 To:SA3, RAN3

[R2-2107843](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107843.zip) Security protection on RRCResumeRequest message vivo discussion Rel-17

[R2-2108216](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108216.zip) Extended MAC-I for RRCResumeRequest MediaTek Inc. discussion Rel-17

[R2-2108348](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108348.zip) Discussion on security enhancement for RRCResumeRequest Xiaomi Communications discussion

Moved from 8.21.1 to 8.22

[R2-2108621](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108621.zip) Security protection on RRCResumeRequest message Huawei, HiSilicon discussion Rel-17 FS\_5GFBS

* [032] 9 tdocs above are Noted

[R2-2107572](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107572.zip) DRAFT LS Reply on security protection on RRCResumeRequest message Apple [To be RAN2] LS out Rel-17 FS\_5GFBS To:SA3

* [032] revised

[R2-2109121](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109121.zip) LS Reply on security protection on RRCResumeRequest message RAN2 LS out Rel-17 FS\_5GFBS To:SA3

* [032] Approved

BCS5/4

On-line first

* [AT115-e][033][NR17] BCS5/4 (Xiaomi)

Scope: Ph1: Take into account on-line progress. FOCUS first on Decision Option 1 vs 2, can also clarify rel-support for BCS5. Closed at CB W1

Ph2: LS out

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

Deadline: Ph2 Aug 26 (no online CB is planned)

Initial on-line Monday W1

[R2-2106957](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106957.zip) LS on NR CA capability for BCS5 (R4-2108002; contact: Xiaomi) RAN4 LS in Rel-17 NR\_BCS4-Core To:RAN2

* Noted

[R2-2107126](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107126.zip) Introduction of BCS4 and BCS5 Qualcomm Incorporated, Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_BCS4-Core

* Noted

[R2-2107183](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107183.zip) Discussion on BCS5 OPPO discussion Rel-17 NR\_BCS4-Core

* Noted

[R2-2108589](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108589.zip) Discussion on the signalling for BCS5 Huawei, HiSilicon discussion Rel-17 NR\_BCS4-Core

- Huawei Prefer to not go with any of the indicated solutions.

- IF we need to follow R4 then prefer solution 2

* Noted

DISCUSSION on the four documents above.

- Xiaomi think the issues pointed out in Huawei paper is already in current TSes. Think we should follow R4 agreements. QC has same understanding as Xiaomi. R4 dicussed a lot and reached this as compromise.

- QC think the multiple-range case ponted to by OPPO is not typical.

- Apple prefer the bitmap case, think the flexibility is needed.

- ZTE prefer solution 2, think flexibility of solution-1 is not needed. Intel also support solution 2. Ericsson also support solution-2

- TMO think the bitmap is not needed, can be had in R4 TS. Think solution-2 is adequate.

- Xiaomi think already in the LS R4 indicate the possibility of multiple sets being needed with solution-2.

- Chair wonder if we can go with Solution-2, no solution seems unacceptable, and solution-2 seems clearly to have more support.

- Apple request to go offline and CB.

- Chair: can discuss briefly offline, CB to decide. We will choose between the optionsl provided by R4

- Huawei would like to check which release to support this. TMO think BCS4 is rel-indep and BCS5 is supported from R17. Xiaomi think maybe both are rel-indep.

CB Friday W1

[R2-2109052](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109052.zip) Summary of Report of [AT115-e][033][NR17] BCS5/4 Xiaomi Communications

DISCUSSION

- Chair wonder if we shall then agree non-rel-indep CRs for now and possibley ask R4

- QC think we need to clarify whether there is BW non-compatibility issues for BCS5 if rel-indep.

- Apple think we can ask and also ask how BCS4 and BCS5 work together.

- Huawei are ok to ask. But thikn indeed we need to check signalling design, ensure BW compatibility and can then ask R4. ZTE agrees with Huawei, and wonder if BSC5 can be rel-indep, if we need BSC4. MTK are aligned with HW and MTK, no motivation to make BCS5 rel indep.

- TMO indicate that R4 has assumed that BCS4 is intended to be BW compatible, BCS5 only for Rel-17, and never used together. Are ok with R4 clarification.

- Nokia think there is no in-feasibility for BCS5 rel-indep.

- QC think that there is a gain to have BCS5 rel-indep as BCS4 is more difficult to implement than BCS5.

- Chair: Can postpone CRs until reply from R4.

* Solution 2 as indicated in [R2-2106957](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106957.zip) is supported.
* Reply LS to R4 asking about BCS5 rel indep and confirm whether BCS4 and BCS5 would work together (continue offline)

[033] Phase 2:

[R2-2109073](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109073.zip) Reply LS for NR CA capability for BCS5 RAN2 LS out

* [033] LS out is approved

Treated in [033]

[R2-2108801](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108801.zip) NR CA capability for BCS5 Xiaomi Communications discussion Rel-17 NR\_BCS4-Core

Moved from 8.21.1 to 8.22

[R2-2108043](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108043.zip) Consideration on the BCS4/5 supporting ZTE Corporation, Sanechips discussion Rel-17 NR\_BCS4-Core

* [033] 2 tdocs above are Noted

CRs

[R2-2107127](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107127.zip) Introduction of supported minimum bandwidth per CC for BCS5 Qualcomm Incorporated, Nokia, Nokia Shanghai Bell CR Rel-16 38.331 16.5.0 2713 - B NR\_BCS4-Core

[R2-2107128](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107128.zip) Introduction of supported minimum bandwidth per CC for BCS5 Qualcomm Incorporated, Nokia, Nokia Shanghai Bell CR Rel-16 38.306 16.5.0 0611 - B NR\_BCS4-Core

[R2-2108041](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108041.zip) CR on the BCS4/5 supporting-38331 ZTE Corporation, Sanechips CR Rel-17 38.331 16.5.0 2750 - B NR\_BCS4-Core

[R2-2108042](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108042.zip) CR on the BCS4/5 supporting-38306 ZTE Corporation, Sanechips CR Rel-17 38.306 16.5.0 0620 - B NR\_BCS4-Core

[R2-2108044](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108044.zip) CR on the BCS4 supporting-r15 ZTE Corporation, Sanechips CR Rel-15 38.306 15.14.0 0621 - B NR\_BCS4-Core

[R2-2108045](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108045.zip) CR on the BCS4 supporting-r16 ZTE Corporation, Sanechips CR Rel-16 38.306 16.5.0 0622 - A NR\_BCS4-Core

* All CRs are postponed

Transp TxD

Treat offline only

* [AT115-e][034][NR17] TX diversity (CMCC)

Scope: Treat papers in this section, Determine agreeable points, agree CRs

Intended outcome: Report, Agreed CRs, LS out if found needed.

Deadline: Schedule 1

R2-2109142 The report of [AT115-e][034][NR17] TX diversity (CMCC) CMCC (Rapporteur)

* [034] Noted, agreements reflected below

[R2-2107417](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107417.zip) Discussion on capability of supporting txDiversity vivo discussion Rel-17 NR\_RF\_TxD-Core

* [034] noted

[R2-2108588](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108588.zip) Discussion on transparent TxD capability signalling Huawei, HiSilicon, CMCC discussion Rel-17 NR\_RF\_TxD-Core

* [034] noted
* [034] Introduce a new per-band capability signalling for FR1 UEs supporting transparent TxD in Rel-16 by allowing early implementation from Rel-15 when RAN4 has completed the Phase 1 requirements.
* [034] CRs can be discussed and agreed in principle. Formal CRs can only be approved when RAN4 has completed the Phase 1 requirements.

[R2-2108537](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108537.zip) CR on 38.331 for introducing UE capability of txDiversity CMCC CR Rel-16 38.331 16.5.0 2778 - C TEI16, NR\_RF\_TxD-Core

[R2-2108538](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108538.zip) CR on 38.306 for introducing UE capability of txDiversity CMCC CR Rel-16 38.306 16.5.0 0627 - C TEI16, NR\_RF\_TxD-Core

* [034] both agreed-in-principle (not for RP)

UL Tx switching

Offline first

* [AT115-e][035][NR17] TX switching (China Telecom)

Scope: Ph1: Treat papers under 8.22 on TX switching (this section), Determine agreeable points, was concluded W1.

Ph2: Discuss how to capture and progress CRs as far as possible

Intended outcome: Ph1 Report, Ph2 endosed draft CRs (and report if useful).

Deadline: Ph2 Aug 26 (no online CB planned)

[R2-2109042](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109042.zip) Summary of [AT115-e][035][NR17] TX switching (China Telecom) China Telecom

DISCUSSION

P1 P2

- ZTE are ok with 1 and 2. Apple HW, CATT as well

P6

- MTK think P6 is too vague and relate to some ASN.1 detail.

- vivo think this is related to way forward P4. Think some flexibility is needed and we should ask R4. Should ask R4 about P4. Huawei are confused about vivos comment.

P7

- Apple think this was discussed in R4 already and PB is not applicable to R17 UL TX sw. Think that this need to be explicitly captured in R2 TS. ZTE has differnet understanding, info from R4 delegate was that R4 hasn’t decided.

P8

- ZTE think we cannot make assumption in R2 as this is unter progress in R1, should wait for R1. CATT think the risk is low, and P8 can be assumed.

* No need to introduce Rel-17 UE capability of DL interruption for 2Tx-2Tx switching. The Rel-16 UE capability of DL interruption for 1Tx-2Tx switching applies to 2Tx-2Tx switching as well.
* To introduce Rel-17 per-band pair UE capability to indicate a different switching time for 2Tx-2Tx switching for a given BC (Option 1).
* The Rel-16 filter *uplinkTxSwitchRequest-r16* can be reused to request Rel-17 UL Tx switching UE capability.
* For R17 1Tx-2Tx/2Tx-2Tx switching between 1 carrier on band A and 2 contiguous aggregated carriers on band B for SUL and UL CA, RAN2 takes the following way-forward as RAN2 understanding.

Way-forward: the UE should report corresponding CA bandwidth class and UL MIMO layers in the UL featureSetPerCCs for 2 continuous CCs on band B in the legacy way. No new UE capability is needed specific to the case with 2CCs on band B.

* On band B, the fallback capability from 2 CCs to 1 CC can be supported in the legacy way.
* P8 P9 we wait.

LS out from this meeting is not needed.

Discuss how to capture in ph2, draft CRs (running CRs).

[035] Phase 2:

[R2-2109224](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109224.zip) Summary of [AT115-e][035][NR17] TX switching (China Telecom) China Telecom

- [035] Chair: ph2 updated report, should be taken into account for continued discussion.

* [035] Noted

[R2-2108159](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108159.zip) Draft CR to TS38.331 to support Tx switching enhancements Huawei, HiSilicon, China Telecom, Apple, CATT draftCR Rel-17 38.331 16.5.0 NR\_RF\_FR1\_enh

[R2-2108160](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108160.zip) Draft CR to TS38.306 to support Tx switching enhancements Huawei, HiSilicon, China Telecom, Apple, CATT draftCR Rel-17 38.306 16.5.0 NR\_RF\_FR1\_enh

* Both revised

[R2-2109088](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109088.zip) Draft CR to TS38.331 to support Tx switching enhancements Huawei, HiSilicon, China Telecom, Apple, CATT draftCR Rel-17 38.331 16.5.0 NR\_RF\_FR1\_enh

[R2-2109089](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109089.zip) Draft CR to TS38.306 to support Tx switching enhancements Huawei, HiSilicon, China Telecom, Apple, CATT draftCR Rel-17 38.306 16.5.0 NR\_RF\_FR1\_enh

* [035] baseline for continued discussion
* [Post115-e][035][NR17] TX switching (China Telecom)

Scope: Finalize checking of Running CRs 38331 38306

Intended outcome: Endorsed Running CRs.

Deadline: Short 2 (not for RP)

Treated in [035]

[R2-2106907](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106907.zip) Reply LS on Rel-17 uplink Tx switching (R1-2104137; contact: China Telecom) RAN1 LS in Rel-17 NR\_RF\_FR1\_enh To:RAN4 Cc:RAN2

[R2-2106951](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106951.zip) LS on Rel-17 Tx switching enhancements (R4-2103234; contact: China Telecom) RAN4 LS in Rel-17 NR\_RF\_FR1\_enh To:RAN1, RAN2

[R2-2108274](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108274.zip) UE capability reporting and RRC configuration for Rel-17 UL Tx switching enhancements China Telecommunication, CATT, Baicells discussion Rel-17 NR\_RF\_FR1\_enh

[R2-2107591](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107591.zip) Discussion on Rel-17 UL Tx Switching Apple discussion Rel-17 NR\_RF\_FR1\_enh

[R2-2107979](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107979.zip) UE capabilities for UL Tx switching enhancement Ericsson discussion

[R2-2108158](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108158.zip) RAN2 impact to support R17 UL Tx switching enhancement Huawei, HiSilicon, Apple discussion Rel-17 NR\_RF\_FR1\_enh

[R2-2108671](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108671.zip) R17 TX switching enhancements vivo discussion Rel-17 NR\_RF\_FR1\_enh

[R2-2106953](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106953.zip) Reply LS on Rel-17 uplink Tx switching (R4-2107847; contact: China Telecom) RAN4 LS in Rel-17 NR\_RF\_FR1\_enh To:RAN1, RAN2

* [035] 8 tdocs above are Noted

[R2-2108672](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108672.zip) CR to 38.331 on Rel-17 Tx switching enhancements vivo CR Rel-17 38.331 16.5.0 2795 - B NR\_RF\_FR1\_enh

[R2-2108673](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108673.zip) CR to 38.306 on Rel-17 Tx switching enhancements vivo CR Rel-17 38.306 16.5.0 0637 - B NR\_RF\_FR1\_enh

* Both not pursued

NR DSS – Not treated

Chair Comment: Expect DSS work in R2 to be kicked off by LS from R1

[R2-2108620](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108620.zip) Considerations on cross-carrier scheduling from SCell to P(S)Cell Huawei, HiSilicon discussion Rel-17 NR\_DSS

# 9 Rel-17 EUTRA Work Items

## 9.1 NB-IoT and eMTC enhancements

(NB\_IOTenh4\_LTE\_eMTC6-Core; leading WG: RAN1; REL-17; WID: RP-211340)

Time budget: 1 TU

Tdoc Limitation: 4 tdocs

Email max expectation: 4 threads

### 9.1.1 Organizational

### 9.1.2 NB-IoT neighbor cell measurements and corresponding measurement triggering before RLF

Focus on:

Details of the criteria and configuration for starting measurements

Whether any further information needs to be provided by the NW

Whether any assistance information from UE is needed.

If/how to support “early” RLF

[R2-2107122](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107122.zip) Consideration on neighbour cell measurement in RRC connected state Qualcomm Incorporated discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

[R2-2107429](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107429.zip) Open issues on connected mode measurements for RLF Huawei, HiSilicon discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

[R2-2107761](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107761.zip) Remaining issues on connected mode measurement ZTE Corporation, Sanechips discussion NB\_IOTenh4\_LTE\_eMTC6-Core R2-2105314

[R2-2107810](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107810.zip) Network assistance information for Re-establishment time reduction Nokia, Nokia Shanghai Bell discussion Rel-17

[R2-2107811](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107811.zip) On the open aspects for connected mode measurements for RLF enhancements Nokia, Nokia Shanghai Bell discussion Rel-17

[R2-2107869](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107869.zip) Triggering cell selection early Huawei, HiSilicon, MediaTek Inc., Spreadtrum Communications, Lenovo, Motorola Mobility, Fraunhofer, Novamint, CMCC, China Unicom, Reliance Jio discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

[R2-2108390](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108390.zip) Discussion on connected mode measurement in NB-IoT Ericsson discussion

R2-2108843 Summary of AI 9.1.2 NB-IoT neighbor cell measurements (Huawei) Huawei discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

### 9.1.3 NB-IoT carrier selection based on the coverage level, and associated carrier specific configuration

Focus on details of the remaining 2 sub-options and selection of one of the options:

For option 1, whether DRX can be part of the carrier selection criteria

For option 1, upon cell change, whether to fallback or to select carrier based on previously determined CEL

For both options whether there is a report from the UE to suggest a carrier or provide a metric report

For both options whether to use a hysteresis/longer averaging/timer on measured NRSRP

[R2-2107123](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107123.zip) Support for NB-IoT carrier selection based on the coverage level Qualcomm Incorporated discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

[R2-2107124](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107124.zip) Signalling for coverage-based paging carrier selection Qualcomm Incorporated discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

[R2-2107207](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107207.zip) Discussion on details of paging carrier selection options MediaTek Inc. discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

[R2-2107370](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107370.zip) Further discussion on enhanced paging carrier selection Spreadtrum Communications discussion Rel-17

[R2-2107391](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107391.zip) Further discussion on enhanced paging carrier selection NEC Corporation discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

[R2-2107430](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107430.zip) Paging carrier selection Huawei, HiSilicon discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

[R2-2107762](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107762.zip) Remaining issues on CEL-based paging carrier selection ZTE Corporation, Sanechips discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core R2-2105317

[R2-2107812](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107812.zip) Further analysis on solution for coverage level based paging carrier selection Nokia, Nokia Shanghai Bell discussion Rel-17

[R2-2108391](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108391.zip) Paging Carrier Selection Ericsson discussion

R2-2108828 Summary of AI 9.1.3 NB-IoT carrier selection Ericsson discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

### 9.1.4 Other

Includes WI objectives led by other WGs.

Includes resubmission of R2-2106603 Report of [AT114-e][302][NBIOT/eMTC R17] NB-IoT/eMTC Other (ZTE), ZTE

[R2-2107431](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107431.zip) L2 buffer size calculations for eMTC and NB-IoT enhancements Huawei, HiSilicon discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core

[R2-2107763](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107763.zip) Remaining issues on 14 HARQ and 1736bits TBS for eMTC ZTE Corporation, Sanechips discussion NB\_IOTenh4\_LTE\_eMTC6-Core

[R2-2107764](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107764.zip) Remaining issues on 16QAM for NB-IoT ZTE Corporation, Sanechips discussion NB\_IOTenh4\_LTE\_eMTC6-Core

[R2-2107996](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107996.zip) Report of [AT114-e][302][NBIOT/eMTC R17] NB-IoT/eMTC Other ZTE (email discussion rapporteur) discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core R2-2106603

[R2-2108392](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108392.zip) Support of 16-QAM for unicast in UL and DL in NB-IoT Ericsson discussion R2-2106078

[R2-2108742](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108742.zip) Total L2 Buffer Size for NB-IoT and LTE-M UEs Ericsson discussion Rel-17 NB\_IOTenh4\_LTE\_eMTC6-Core R2-2106158

## 9.2 NB-IoT and eMTC support for NTN

(LTE\_NBIOT\_eMTC\_NTN; leading WG: RAN1; REL-17; WID: RP‑211601)

Time budget: 1TU

Tdoc Limitation: 4 tdocs.

Email max expectation: 5 threads

### 9.2.1 Organizational

Rapporteur Input, incoming LSes,

[R2-2106929](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106929.zip) Reply LS to LS on IoT-NTN basic architecture (R3-212806; contact: Qualcomm) RAN3 LS in Rel-17 LTE\_NBIOT\_eMTC\_NTN To:RAN2, SA2 Cc:RAN, CT1

* Noted

[R2-2108849](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108849.zip) LTE\_NBIOT\_eMTC\_NTN Work Plan MediaTek, Eutelsat work plan Rel-17 LTE\_NBIOT\_eMTC\_NTN work plan

* Noted wo presentation

CRs

* [Post115-e][083][IoT-NTN] Stage-2 36300 Running CR ()

Scope: Running CR. Identify impact. Capture agreements. Use editor’s notes where appropriate.

Intended outcome: Endorsed draft CR.

Deadline: Short 2 (not for RP)

* [Post115-e][084][IoT-NTN] MAC 36321 Running CR ()

Scope: Running CR. Identify impact. Capture agreements. Use editor’s notes where appropriate.

Intended outcome: Endorsed draft CR.

Deadline: Short 2 (not for RP)

* [Post115-e][085][IoT-NTN] 36304 Running CR ()

Scope: Running CR. Identify impact. Capture agreements. Use editor’s notes where appropriate.

Intended outcome: Endorsed draft CR.

Deadline: Short 2 (not for RP)

* [Post115-e][086][IoT-NTN] RRC 36331 Running CR ()

Scope: Running CR. Identify impact. Capture agreements. Use editor’s notes where appropriate.

Intended outcome: Endorsed draft CR.

Deadline: Short 2 (not for RP)

### 9.2.2 Support of Non continuous coverage

Offline first

* [AT115-e][036][IoT-NTN] Non continuous coverage (Mediatek)

Scope: Ph1: Treat documents under 9.2.2. Identify potential agreements (e.g. confirm agreements from SI), Open points, potential alternatives, potential further enhancements.

Ph2: LS out

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

Deadline: Ph2: Thursday W2 (CB only if needed)

Monday W2 On-Line

[R2-2109059](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109059.zip) Summary of 9.2.2 Non continuous coverage MediaTek Inc.

Ph1 DISCUSSION on-line

P1

- QC think that the word “essential” is part of the SI. Think we should keep TS impact minimal. QC would like to confirm that we will not bring any solution that have impact in other WG.

- Thales think that different solutions may be applied for different scenarios, e.g. Geo, e.g. earth-fixed vs. earth-moving scenairos.

- QC again want to reduce impact in other group.

- Chair think that the word “recovery” in the P1 text was chosen with NAS recovery in mind (re-registration or other such signalling), and that it should be avoided that NAS triggers such procedures in case of “normal” outage due to non continous NTN coverage.

P2

- Chair observe that this is not an objective for NR NTN.

- Huawei think the last part can be assued as baseline but canno be agreed the way it is written. Ericsson agrees. Nokia agrees.

- Ericsson think we shall say that the UE “shall be able to predict” etc

- Xiaomi think we need to first determine what this ass info is.

- CATT agrees with Ericsson and Nokia, and think that UE shall predict based on info. Think that measurements paging etc shall be stopped.

- QC think that we need to specify more in detailed

- CMCC wonder if the UE need to apply his location, to calculate coverage situation. Think there is a difference to NR NTN that power saving is more important.

- Apple are ok with the proposed modifications. But there may be situations when the UE may not be able to predict. Apple think the ephemeris is open and up to R1. Chair think ephemeris info for coverage prediction is maybe not same as for L1 pre-compensation.

- Thales think we should abandon using the “ephemeris” wording for these use cases, as this is now has a specific meaning in 3GPP NTN, and is defined by R1 for specific cases.

- Ericsson think we have used this wording since start.

- Chair: removed the word “ephemeris” for this use case, to avoid confusion and mixup with other use cases. Lenovo are ok with this. NOvamint also ok.

- QC proposes to move the UE actions to another proposal

P2.1: New moved UE action to new proposal: “The details of UEs actions when predicted to be out of coverage is FFS, e.g. stopping unnecessary cell search in the Idle mode”

- Ericsson are ok to have this separate. Think this is usually left to UE implementation, can do same here. Apple agrees with Ericsson, this doesn’t need to be specified. ZTE agrees as well.

- Novamint agrees with this.

- QC wonder if this mode of operation is in the context of another WG, e.g. as PSM. Chair think indeed there is some impact to NAS, such that NAS timers do not trigger recovery as soon as the gets into coverage again.

P3:

- ZTE think P3 something may need to specified.UE and network need same understanding.

- CATT support P3, think we only discuss what assistance info is needed.

- Nokia has concerns that UE prediction error may be so large that UE may completely miss the coverage window. Prediction accuracy need to be discussed. Novamint agrees and think it need to be discussed how the info is delivered, which may give different performance.

- QC think p3 is ok.

P4

- ZTE wonder whether SA2 and CT1 are expected to work on this. Chair think QC put it correct that SA2 and CT1 will do alignment work.

P5

- Lenovo think this is too early think we can use the word baseline. ZTE agrees with Leonovo.

- Eutelsat think the two sentences are not consistent, some workding change is needed.

- CATT are in general ok with the proposal.

- Lenoov point out that this is sufficiently covered in the WID.

* RAN2 confirms that the following will be supported: discontinuous coverage without excessive UE power consumption and without excessive failures / recovery actions. It is expected that this need to be taken into account at least for Idle mode. The requirement is applicable for all reference scenarios (GEO, MEO and LEO).
* Sattelite assistance information will be used by the UE for predicting coverage discontinuity. The details of the assistance information is FFS. FFS whether any applicable agreements made in NR-NTN can be reused.
* The details of UEs actions when predicted to be out of coverage is FFS, e.g. stopping unnecessary cell search in the Idle mode, and FFS to what extent this need to be specified.
* It is FFS to what extent it need to be specified the details of UE’s prediction of discontinuous coverage and its ability to detect when it is back in coverage.
* RAN2 sends an LS to SA2 and CT1 (cc: RAN3) for the possible alignment work in their specification due to the support of discontinuous coverage.

[R2-2109201](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109201.zip) Draft LS on supporting discontinuous coverage in IoT NTN Mediatek LS out

* LS out is approved, final version in R2-2109213

[R2-2107081](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107081.zip) Discussion on the support of discontinuous coverage for IoT over NTN OPPO discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2107319](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107319.zip) Discussion on discontinuous coverage CATT discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2107400](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107400.zip) UE behavior for Discontinuous coverage in NTN IoT Rakuten Mobile, Inc discussion Rel-17

[R2-2107424](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107424.zip) Discussion on non continuous coverage Huawei, HiSilicon discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2107453](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107453.zip) On LEO satellite flyover timing and discontinuous coverage Eutelsat S.A. discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2107559](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107559.zip) Support of non-continuous coverage Qualcomm Incorporated discussion Rel-17 FS\_LTE\_NBIOT\_eMTC\_NTN

[R2-2107613](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107613.zip) Support of discontinuous coverage Apple discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2107765](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107765.zip) Support of discontinuous coverage in IoT NTN ZTE Corporation, Sanechips discussion Rel-17 FS\_LTE\_NBIOT\_eMTC\_NTN

[R2-2107913](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107913.zip) Enhancement for idle UE power saving in discontinuous coverage Lenovo, Motorola Mobility discussion Rel-17

[R2-2107914](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107914.zip) RRC connection handling for discontinuous coverage in IoT NTN Lenovo, Motorola Mobility discussion Rel-17

[R2-2108116](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108116.zip) On support of Non continuous coverage Nokia, Nokia Shanghai Bell discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2108171](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108171.zip) Discussion on discontinuous coverage Xiaomi discussion

[R2-2108325](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108325.zip) Support of discontinuous coverage NEC Telecom MODUS Ltd. discussion

[R2-2108336](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108336.zip) On Discontinuous coverage in IoT-NTN MediaTek Inc. discussion

[R2-2108500](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108500.zip) Discussion on support of Non continuous coverage CMCC discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2108740](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108740.zip) Discontinuous coverage in IoT NTN Ericsson discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN-Core

* [036] 16 tdocs above are noted

### 9.2.3 User Plane Impact

Expect to converge on baseline UP agreements based on SI agreements and NR NTN progress.

* [AT115-e][037][IoT-NTN] User Plane Impact (OPPO)

Scope: Treat documents under 9.2.3. Identify potential agreements (e.g. confirm SI agreements), Open points, potential alternatives.

Intended outcome: Report

Deadline: CLOSED

W2 Monday On-Line

[R2-2109043](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109043.zip) Summary of [AT115-e][037][IoT-NTN] User Plane Impact (OPPO) OPPO

- 3, 5, 7 may need discussion. Rapporteur proposes to start by baseline solution.

DISCUSSION

P1

- Ericsson think R1 need to at least need to make agreements similar to NR NTN, and then we can progress. Huawei agrees

- Apple wonder whether the offset P1 P2 can be different to eNB UE RTT? Can we agree this? Huawei think R1 are discussing this, we don't need to. Ericsson think we can agree something like this. QC think we just wait for R1 for the details.

P3

- ZTE wonder if the offset would be the same. Chari think they could be the same but a later discussion

P5

- Huawei think this is R1 discussion. Apple agrees, but even if this is correct it may not impact R2 TS. OPPO think that if R1 decides for this kind of spec, K-Mac need to be broadcasted, so TS impact, but this in indeed decided by R1.

- Chiar think we let R1 work on this first.

P7

- OPPO think this TA reporting is used for Koffset configuration for eNB precompensation.

- Nokia agrees that this shall be reported but maybe not the TA but instead information about TA, and we should aligne with NR NTN, can also be location info, then for NR NTN it is agreed that this is per request from network. Ericsson agrees furthermore thei is needed in order to respect half-duplex timing.

- Huawei think that for MSG3 there is no possibility to report. For NR MSG5 is agreed. Ericsson think that when this reported is not yet decided for NR NTN.

- Xiaomi wonder if this is needed for RACH procedure.

P8

- Ericsson think this might not be straight forward. OPPO agrees.

- Oppo, QC, IDT are ok with take into accout rewording.

- ZTE think we may need to take into account valid/invalid subframes counting.

P9

- MTK think we can agree that it need to be extended.

P10 P11

- Huawei think these are ok, but no more optimizations.

- Huawei Think this is up to R1 to what extent this is supported. Oppo agrees and think e.g. LEO scenario can become complex.

13

- ZTE wonder if this shall be decided by RAN2. Oppo think this is indeed the intention, we decide the values later.

14a/14b

- ZTE think it should be extended for 14b. Think that for NR NTN this was decided.

- Oppo thikn tht for NR NTN there were new 5QI introduced by SA2, but no new decision for eMTC. Apple agrees.

* Start of ra-ResponseWindow is delayed by an offset. Postpone discussion on the offset value until further agreements regarding RACH are made in RAN1.
* If the start of the RA Response window is accurately compensated by UE-eNB RTT and no extension of repetition is required, there is no need to extend the ra-ResponseWindowSize for IoT NTN.
* Start of mac-ContentionResolutionTimer is delayed by an offset, (assumed equal to UE-eNB RTT). This can be revisited if RAN1 decides something that requires to change this.
* If the start of mac-ContentionResolutionTimer is accurately compensated by UE-eNB RTT and no extension of repetition is required, there is no need to extend the mac-ContentionResolutionTimer for IoT NTN.
* From RAN2 perspective, for UE with UE-specific pre-compensation as a baseline it is up to eNB implementation to ensure sufficient time on UE side for the Msg3 transmission for IoT NTN.
* RAN2 assumes that TA information (FFS what) reporting by the UE on network enabling will be needed in IoT NTN. Expect RAN1 need to progress on this, and can maybe reuse NR NTN progress. FFS in which message this is provided.
* UE-eNB RTT is taken into account when calculating the (UL) HARQ RTT timer.
* RAN2 assumes that sr-ProhibitTimer need to be extended. Postpone treatment of sr-ProhibitTimer values until the NR NTN details have been decided.
* From RAN2’s perspective, delayed start of pur-ResponseWindowTimer with UE-eNB RTT can be supported. This can be revised if RAN1 finds issues to support PUR that are not small.
* pur-ResponseWindowSize is not extended for IoT NTN.
* SPS is supported without modification for IoT NTN.
* RAN2 confirm the SI agreement that the value range of the RLC t-Reordering timer will be extended to support IoT NTN.
* Do not extend the PDCP discardTimer for NB-IoT over NTN.
* FFS whether to extend the PDCP discardTimer for eMTC over NTN.
* Do not extend PDCP t-Reordering for IoT NTN.

[R2-2107082](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107082.zip) Discussion on UP impact for IoT over NTN OPPO discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2107320](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107320.zip) User Plane Impact for IOT NTN CATT discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2107425](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107425.zip) User plane for IOT NTN Huawei, HiSilicon discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2107614](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107614.zip) Provision of ephemeris Apple discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2107766](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107766.zip) User plane aspects of IoT NTN ZTE Corporation, Sanechips discussion Rel-17 FS\_LTE\_NBIOT\_eMTC\_NTN

[R2-2107915](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107915.zip) Further enhancement for PUR in IoT NTN Lenovo, Motorola Mobility discussion Rel-17

[R2-2108117](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108117.zip) Discussion on User Plane impact for IoT NTN Nokia, Nokia Shanghai Bell discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2108335](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108335.zip) On User-Plane Timers in NB-IoT based NTN MediaTek Inc. discussion

[R2-2108454](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108454.zip) User plane aspects of NB-IoT and LTE-M in NTNs Ericsson discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2108529](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108529.zip) User plane for IoT-NTN CMCC discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

* [037] 10 tdocs above are Noted

### 9.2.4 Control Plane Impact

Expect to converge on baseline CP agreements based on SI agreements and NR NTN progress.

#### 9.2.4.1 TA and Mobility related

* [AT115-e][038][IoT-NTN] TA and Mobility (Ericsson)

Scope: Treat documents under 9.2.4.1 Identify potential agreements (e.g. confirm SI agreements, settle expected impacts), Open points (i.e. thing that need to be addressed), potential alternatives, potential further enhancements.

Ph1: prepare for on-line CB Monday W2

Ph2: Continue discussion based on Rapporteurs proposal on what to discuss, prioritize what can be progressed now. Companies should raise discussion scope points ASAP after ph2 start.

Intended outcome: Ph1: Report, Ph2: off-line agreements (if possible), Report

Deadline: Ph2: Thursday W2 (possible short late CB Friday).

W2 Monday on-line:

[R2-2109093](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109093.zip) Summary of AI 9.2.4.1 TA and Mobilty related Ericsson discussion Rel-17

DISCUSSION on the proposals to agree

- Oppo: P10 can be removed from here

- P2: CMCC think ephemeris need to be re-phrased as we discussed above. Chair think this is then related to l1 procedure, or what. CMCC think this is for cell selection and TA update.

- P5: Xiaomi think that for moving cells they don't transmit timing info so remove the FFS part. Ericsson think the FFS is there for he NR NTN case..

- P5 / P13: QC think how to do this should be FFS, e.g. as this may bring a lot of overhead. Apple agrees.

- P26: Huawei don’t agree, need to check.

- Nokia think that P5 and P13 are relatd to disc coverage and can be taken out. Ericsson think that hey are general and are discussed for NR NTN as well. Oppo agrees with Ericsson

- P13: Apple asks whether there is a concern on the SI modification procedure. Huawei think yes of course and we need to discuss that.

**The following is agreed:**

* Cell selection / reselection procedures for NB-IoT and LTE-M in TN is the baseline in NB-IoT/LTE-M NTN.
* RAN2 assumes that Satellite assistance information, e.g. for cell selection reselection, for serving cell is provided to UE.
* Wait for the progress in RAN1 before discussion on whether satellite assistance information is broadcast in a separate information block.
* The timing information on when a cell is going to stop serving the area is broadcast at least for the quasi-earth fixed case. FFS details.
* The network may broadcast more than one TAC per PLMN in a cell, which is up to network implementation.
* The UE determines the Tracking Area based on the broadcast information (the use of other information is not excluded).
* When the network stops broadcasting a TAC, the UE needs to know it. FFS how this is done.
* UE does not do TAU if one of the currently broadcasted TAC belongs to UE’s registration area.
* Rel-16 LTE CHO mechanism is supported for LTE-M devices in IoT NTN. FFS which CE Mode(s) to apply
* No procedural update is required to support connected mode mobility for LTE-M.
* Rel-16 RLF / connection re-establishment mechanisms are supported in IoT NTN assuming that minor adjustments to UE specific timers and constants would be sufficient.

Continue discussion based on Rapporteurs proposal on what to discuss, prioritize what can be progressed now. Companies should raise discussion scope points ASAP. Can have short late on-line CB.

[R2-2109176](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2109176.zip) Summary of AI 9.2.4.1 “TA and Mobility related” (Ericsson) - Ph2 Ericsson

Chair: Due to limited time not all proposals were considered

DISCUSSION

P1 7 9 10

- On P1 ZTE would like to have this. Helps measurements on neighbour cell. QC agrees with ZTE, think this is mainly overhead.

- Nokia think that for continuous coverage this it not needed, but maybe discountinous coverage (for neighbors that appear at a later point in time) it may be useful.

- Apple think that if UE has access to full ephemeris then there is no issue. Mtk agrees.

- Xiaomi think that if this assistance info is timing info then sufficient if we have that for serving cell.

P3 4 5 6

- QC are ok with P3. P5 on the other hand can maybe not be agreed.

- Xiaomi are ok w 3 and 5. For p4 thikn the legacy mechanism would be sufficient.

- Huawei support P3 and P5, P4 is ok as well.

- QC thikn P6 is opposite to P6 doesn’t agrees with P6.

- Apple think P3 P5 are ok. P6 should not be considered. Thikn p4 is ok.

- ZTE are hesitant to P3 now. think it could be up to eNB impl, e.g. notify removals but not additions.

- MTK support P3 P5 not P6

- Chair: P6 seems not widely supported

P2

- CATT think that if UE is configured with eDRX the UE may be in another cell when waking up.

- Nokia think that when UE wakes up the UE has to do serving cell measurements followed by neighbour cell requirements. Think P2 brings TS change.

- Apple think this should be up to UE impl.

- MTK support this is up to UE impl.

- Chair wonder what to specify. Think that e.g. for eDRX there is the loose SFN synchronization to allow the UE to wake up in a new cell without starting completely from scratch.

- Chair: Propose we don’t attenpt to specify. Specify only if there is a need. Such matters are in general up to UE impl and R4.

* FFS if Satellite assistance information for neighbour cell(s) is provided to UE for cell selection/reselection (justification would be needed).
* The value range for parameter t304 is not extended with larger values.
* Send an LS to RAN4 to inform that RRM impacts for supporting CHO should be taken into consideration.
* Postpone the discussion on whether specific timers and constants for RLF and RRC connection re-establishment procedures require extended value range and/or new behaviour till next meeting.
* System information update notification procedure is not used to inform TAC updates, at least for TAC additions (FFS removals)
* [Post115-e][068][IoT-NTN] LS on RRM impacts for supporting CHO (Ericsson)

Scope: Address the agreement above to Send an LS to RAN4 to inform that RRM impacts for supporting CHO should be taken into consideration.

Intended outcome: Approved LS out

Deadline: Short (not for RP)

[R2-2107083](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107083.zip) Discussion on CP impact for IoT over NTN OPPO discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2107084](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107084.zip) Discussion on idle mode procedures for IoT over NTN OPPO discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2107321](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107321.zip) Discussion on connected mode UE of IoT NTN CATT discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2107322](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107322.zip) Discussion on IDLE mode UE of IoT NTN CATT discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2107371](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107371.zip) Discussion on the issue of mobility for IoT over NTN Spreadtrum Communications discussion Rel-17

[R2-2107426](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107426.zip) TA and mobility for IOT NTN Huawei, HiSilicon discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2107562](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107562.zip) TAC update procedure Qualcomm Incorporated discussion Rel-17 FS\_LTE\_NBIOT\_eMTC\_NTN

[R2-2107767](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107767.zip) Mobility issues of IoT NTN ZTE Corporation, Sanechips discussion Rel-17 FS\_LTE\_NBIOT\_eMTC\_NTN

[R2-2107813](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107813.zip) Analysis on mobility aspects for IoT-NTN Nokia, Nokia Shanghai Bell discussion Rel-17

[R2-2107916](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107916.zip) Considerations on NB-IoT mobility for IoT NTN Lenovo, Motorola Mobility discussion Rel-17

[R2-2108018](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108018.zip) Discussion on connected mode mobility for IoT NTN Xiaomi Communications discussion

[R2-2108172](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108172.zip) Discussion on TA and idle mode mobility enhancement Xiaomi discussion

[R2-2108328](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108328.zip) Mobility enhancement for IoT-NTN NEC Telecom MODUS Ltd. discussion

[R2-2108338](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108338.zip) On Cell Re-selection in IoT-NTN MediaTek Inc. discussion

[R2-2108339](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108339.zip) On Improving Tracking Area Updates in IoT NTN MediaTek Inc. discussion

[R2-2108546](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108546.zip) Enhanced RRC re-establishment for mobility in IoT-NTN CMCC discussion Rel-17 FS\_LTE\_NBIOT\_eMTC\_NTN

[R2-2108548](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108548.zip) Discussion on TA Update for IoT-NTN CMCC discussion Rel-17 FS\_LTE\_NBIOT\_eMTC\_NTN

[R2-2108757](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108757.zip) Mobility for NB-IoT and LTE-M in NTN Ericsson discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN-Core Late

* [038] 18 tdocs above are Noted

#### 9.2.4.2 Other

[R2-2107427](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107427.zip) Control plane - Other for IOT NTN Huawei, HiSilicon discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2107560](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107560.zip) Recovery of synchronization in RRC\_CONNECTED Qualcomm Incorporated discussion Rel-17 FS\_LTE\_NBIOT\_eMTC\_NTN R2-2105429

[R2-2107561](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107561.zip) UL synchronization and Paging response delay Qualcomm Incorporated discussion Rel-17 FS\_LTE\_NBIOT\_eMTC\_NTN

[R2-2107768](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107768.zip) Other control plane aspects of IoT NTN ZTE Corporation, Sanechips discussion Rel-17 FS\_LTE\_NBIOT\_eMTC\_NTN

[R2-2107814](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107814.zip) On Paging and idle mode cell reselection enhancements for IoT-NTN Nokia, Nokia Shanghai Bell discussion Rel-17

[R2-2107988](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107988.zip) Consideration on RRC release for IOT NTN Beijing Xiaomi Mobile Software discussion Rel-17

[R2-2108750](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108750.zip) SIB acquisition during cell reselection in IoT NTN Ericsson discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN-Core

## 9.3 EUTRA R17 Other

Time budget: 0 TU

Tdoc Limitation: No limitation but the AI may be entirely deprioritized depending on available time.

Email max expectation: 1 thread

TEI17 documents can be submitted under this agenda item

[R2-2107214](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107214.zip) Introduction of event-based trigger for LTE MDT logging KDDI Corporation draftCR Rel-17 36.331 16.5.0 B TEI17

Moved from 8.22 to 9.3

[R2-2107215](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107215.zip) Introduction of event-based trigger for LTE MDT logging KDDI Corporation draftCR Rel-17 37.320 16.5.0 B TEI17

Moved from 8.22 to 9.3

[R2-2108596](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108596.zip) Introduction of sensor-LocationInfo for LTE MDT KDDI Corporation discussion

Moved from 8.22 to 9.3

[R2-2107589](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107589.zip) Adding NR-U RSSI/CO measurement UE capability into LTE Apple discussion Rel-17

Was Discussed in NR-U session at R2 113-e. No consensus on the need. Conclusion: “The issue will not be fixed in Rel-16. A new UE capability can be introduced in Rel-17 as TEI.”

Moved from 8.22 to 9.3

[R2-2106930](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106930.zip) Reply LS to LS on User Plane Integrity Protection for eUTRA connected to EPC (R3-212812; contact: Qualcomm) RAN3 LS in Rel-17 To:SA3, RAN2, CT1, CT4, SA2

[R2-2107125](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2107125.zip) UE specific DRX during EDT Qualcomm Incorporated discussion Rel-17 TEI17

[R2-2108556](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108556.zip) Discussion on event triggered logged MDT for LTE Huawei, HiSilicon discussion Rel-17 TEI17 R2-2106144

[R2-2108557](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108557.zip) CR to 36.306 on event triggered logged MDT for LTE Huawei, HiSilicon draftCR Rel-17 36.306 16.5.0 B TEI17

[R2-2108558](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108558.zip) CR to 36.331 on event triggered logged MDT for LTE Huawei, HiSilicon draftCR Rel-17 36.331 16.5.0 B TEI17

[R2-2108559](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108559.zip) CR to 37.320 on event triggered logged MDT for LTE Huawei, HiSilicon draftCR Rel-17 37.320 16.5.0 B TEI17

[R2-2108560](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108560.zip) CR to 36.304 on event triggered logged MDT for LTE Huawei, HiSilicon draftCR Rel-17 36.304 16.4.0 B TEI17

## 9.4 NR and EUTRA Inclusive language

Time budget: N/A

CRs were endorsed/agreed-in-principle at R2#112-e. Final approval is expected when R17 TSes are to be created and at that point CRs need to be updated towards latest TS version and submitted again. Meanwhile this AI can be used to cover missing part, if any, and for correction/modification of the endorsed/agreed-in-principle CRs e.g. for inter-group consistency, inter-group review etc. There may be a consistency review activity organized at R2#115-e, where the rapporteurs of impacted TSes are expected to participate (TBD). RAN coordinator for inclusive language is Gino Mansini (Ericsson).

[R2-2106981](D:\\Documents\\3GPP\\tsg_ran\\WG2\\TSGR2_115-e\\Docs\\R2-2106981.zip" \o "D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2106981.zip) LS on Inclusive language for ANR (S5-213683; contact: Ericsson) SA5 LS in Rel-17 To:RAN3, RAN2

[R2-2108297](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_115-e\Docs\R2-2108297.zip) Inclusive Language Review Status and Consistency Check Ericsson (coordinator) discussion Rel-17

# 10Breakout 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.

## 10.1 Session on LTE legacy, Mobility, DCCA, Multi-SIM and RAN slicing

R2-2108831 Report on LTE legacy, DCCA, Multi-SIM, 71GHz and RAN slicing Report Vice Chairman (Nokia)

## 10.2 Session on R17 NTN and RedCap

R2-2108832 Report from Break-out session on R17 NTN, REDCAP and CE Report Vice Chairman (ZTE)

## 10.3 Session on eMTC

R2-2108833 Report eMTC breakout session Report Session chair (Ericsson)

## 10.4 Session on R17 Small data and URLLC/IIOT

R2-2108834 Report for Rel-17 Small data and URLLC/IIoT Report Session chair (InterDigital)

## 10.5 Session on positioning and sidelink relay

R2-2108835 Report from session on positioning and sidelink relay Report Session chair (MediaTek)

## 10.6 Session on SON/MDT

R2-2108836 Report from SON/MDT session Report Session chair (CMCC

## 10.7 Session on NB-IoT

R2-2108837 Report NB-IoT breakout session Report Session chair (Huawei)

## 10.8 Session on LTE V2X and NR SL

R2-2108838 Report from session on LTE V2X and NR SL Report Session chair (Samsung)