3GPP TSG-RAN WG2 Meeting #116-e R2-21xxxxx

Online, 1-12 November 2021

Source: Session chair (MediaTek)

Title: Report from session on positioning and sidelink relay

# Status of At-Meeting Email Discussions

This subclause is not an Agenda Item. It contains a running summary of the email discussions assigned to take place during the meeting weeks. This section will be moved to an appendix in the final version of the report.

* [AT116-e][600][POS][Relay] Organisational Nathan – Positioning/Relay (MediaTek)

Scope: Organisational discussions and announcements, as needed throughout the meeting weeks

Intended outcome: Well-informed participants

Deadline: Friday 2021-11-12 1000 UTC

* [AT116-e][611][POS] LS to RTCM (ESA)

Scope: Discuss coordination with RTCM, taking into account the way-forward proposals in R2-2109807 and related parts of R2-2110181:

* Conclude on the intention to specify GNSS integrity signalling in Rel-17
* Determine what information we intend to share with RTCM
* Draft an LS reply (TP to be endorsed later)

Intended outcome: Report in R2-2111361 and approvable LS in R2-2111362

Deadline: Friday 2021-11-05 1000 UTC (comments), Monday 2021-11-08 1100 UTC (output available)

* [AT116-e][612][Relay] Non-relay discovery (OPPO)

Scope: Evaluate the spec impact of non-relay discovery specific aspects and determine a way forward for handling this objective.

Intended outcome: Report to CB session, in R2-2111363

Deadline: Tuesday 2021-11-09 0800 UTC (report available)

* [AT116-e][613][POS] BDS B2a and B3I signals (CATT)

Scope: Discuss the CRs in R2-2109485, R2-2109486, R2-2109487, and R2-2109488, collect any comments and produce updates if necessary for endorsement.

Intended outcome: Endorsable CRs

Deadline: Friday 2021-11-05 1000 UTC (comments), Monday 2021-11-08 1100 UTC (output available)

* [AT116-e][614][POS] AI 5.5 CRs (vivo)

Scope: Evaluate and conclude on the CRs in R2-2111126 and R2-2111127.

Intended outcome: Agreed CRs

Deadline: Thursday 2021-11-11 0200 UTC

* [AT116-e][615][POS] PRUs (Qualcomm)

Scope: Discuss the handling of the PRU topic taking the related contributions into account, and determine a way forward.

Intended outcome: Report to positioning session in R2-2111364, and LS out if necessary

Deadline: Monday 2021-11-08 1000 UTC (report available)

* [AT116-e][616][POS] Updates for RAN1 positioning feature list (Intel)

Scope: Review the CRs in R2-2109679, R2-2109680, R2-2109681, R2-2110172, and R2-2110173, and draft a response to RAN1 indicating where we have corrected the implementation of the changes.

Intended outcome: Agreed CRs and approved LS

Deadline: Tuesday 2021-11-09 0900 UTCs

* [AT116-e][617][POS] Correction on BDS B2I clock model (Swift)

Scope: Check and update the CR in R2-2111072.

Intended outcome: Agreeable CR

Deadline: Tuesday 2021-11-09 0800 UTC

* [AT116-e][618][POS] CR to 38.321 on posSRS handling (Huawei)

Scope: Draft a CR to 38.321 capturing the NOTE agreed under agenda item 6.3.4.

Intended outcome: Agreeable CR in R2-2111367

Deadline: Tuesday 2021-11-09 0800 UTC

* [AT116-e][619][POS] Stage 2 Rel-16 positioning CRs (Huawei)

Scope: Check the CRs in R2-2110169 and R2-2110170.

Intended outcome: Agreed CRs

Deadline: Tuesday 2021-11-09 0800 UTC

# 4 EUTRA corrections Rel-15 and earlier

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

## 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.

# 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. Please submit CRs marked “NR\_newRAT-Core, TEI16” under one of the below clauses.

## 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.

[R2-2111126](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111126%20Correction%20on%20LPP%20message%20delivery-R15.doc) Correction on LPP message delivery vivo CR Rel-15 37.355 15.2.0 0324 - F NR\_pos-Core

[R2-2111127](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111127%20Correction%20on%20LPP%20message%20delivery-R16.doc) Correction on LPP message delivery vivo CR Rel-16 37.355 16.6.0 0325 - A NR\_pos-Core

* [AT116-e][614][POS] AI 5.5 CRs (vivo)

Scope: Evaluate and conclude on the CRs in R2-2111126 and R2-2111127.

Intended outcome: Agreed CRs

Deadline: Thursday 2021-11-11 0200 UTC

# 6 Rel-16 NR Work Items

Essential corrections only.

Tdoc Limitation: 18 tdocs in total for all sub agenda items, or the restriction for each sub-AI, whichever is more restrictive.

## 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: See 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).

Incoming LS

[R2-2109333](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109333_R3-212802.docx) 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

Huawei clarify the issue was resolved last meeting.

* Noted

Feature list

[R2-2109313](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Docs\R2-2109313.zip) LS on updated Rel-16 RAN1 UE features lists for NR after RAN1#105-e (R1-2108427; 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 Cc:RAN4

Discussion:

Intel indicate there is a mistake in the LS that changes the wrong component (should be component 3 instead of component 1 of FG13-2b/3b/4b), and this is corrected in the CRs. Also regarding the secondary change to the note on the PRS-only TP, there are related CRs to this meeting.

Nokia ask if the mistake is only in the LS or if an update is needed within RAN1. Intel clarify there is only RAN2 impact in the specs, but we may want to send feedback to RAN1 documenting the mistake and the correction in the changes

[R2-2109679](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109679%20Updates%20based%20on%20RAN1%20NR%20positioning%20features%20list.docx) Updates based on RAN1 NR positioning features list Intel Corporation CR Rel-16 38.822 16.1.0 0006 - F NR\_pos-Core

[R2-2109680](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109680%20Updates%20based%20on%20RAN1%20NR%20positioning%20features%20list.docx) Updates based on RAN1 NR positioning features list Intel Corporation CR Rel-16 37.355 16.6.0 0321 - F NR\_pos-Core

[R2-2109681](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109681%20Updates%20based%20on%20RAN1%20NR%20positioning%20features%20list.docx) Updates based on RAN1 NR positioning features list Intel Corporation CR Rel-16 38.306 16.6.0 0645 - F NR\_pos-Core

* [AT116-e][616][POS] Updates for RAN1 positioning feature list (Intel)

Scope: Review the CRs in R2-2109679, R2-2109680, R2-2109681, R2-2110172, and R2-2110173, and draft a response to RAN1 indicating where we have corrected the implementation of the changes.

Intended outcome: Agreed CRs and approved LS

Deadline: Tuesday 2021-11-09 0900 UTCs

Stage 2 CRs checked with rapporteur

[R2-2110169](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110169%20Correction%20to%20the%20alignement%20between%20stage2%20and%20stage3.docx) Correction to the alignement between stage2 and stage3 Huawei, HiSilicon CR Rel-16 38.305 16.6.0 0081 - F NR\_pos-Core

Discussion:

vivo are generally fine with the corrections, but want to clarify that the periodical SRS should be treated as released rather than deactivated in section 8.10.2.4. Huawei understand that the message from the LMF is a deactivation request and the real release is from the gNB.

Nokia are unsure if the activation/deactivation applies to the periodic case and think the alignment might need to change stage 3 to align with stage 2.

Intel wonder how much stage 3 detail should be reflected in stage 2, and think we could just provide general information.

* Check by email

[R2-2110170](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110170%20Correciton%20to%20Event%20Reporting%20in%20RRC_IDLE.doc) Correciton to Event Reporting in RRC\_IDLE Huawei, HiSilicon CR Rel-16 38.305 16.6.0 0076 - F NR\_pos-Core R2-2107333

Discussion:

Huawei think this alignment is needed with respect to the SA2 spec.

Nokia think we concluded last meeting not to pursue this, and they do not see it as an essential correction.

Ericsson agree with Nokia; the description is well captured in SA2 and we don’t need it here as well.

Qualcomm think we captured the equivalent procedure for RRC\_CONNECTED and it makes sense to align.

Intel and ZTE agree this does not need to be captured.

vivo wonder if the proposed CR implies that the event report is the only message supported to be transmitted via EDT. They are concerned that if we capture this procedure in stage 2, we should capture others such as Request Assistance Data.

Huawei think vivo have a fair question, and according to the SA2 spec EDT is only used to transmit LCS messages. They understand that it might conceivably be used for LPP messages as well but this is not captured in the current spec.

CATT have the same understanding as Qualcomm that it makes sense to capture this; on the point of LCS and LPP messages, they have the same understanding as Huawei. They see this as an alignment change.

ZTE see no consensus on the detailed procedure for RRC\_INACTIVE, and think this case should be the same (the only difference is the transmission mode), so they do not think it needs to be captured.

* Check by email whether to capture anything (content appears to be OK if we want to have a CR)
* [AT116-e][619][POS] Stage 2 Rel-16 positioning CRs (Huawei)

Scope: Check the CRs in R2-2110169 and R2-2110170.

Intended outcome: Agreed CRs

Deadline: Tuesday 2021-11-09 0800 UTC

[R2-2110728](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110728%20ST2%20corrections.docx) Corrections on defintions and scope of information transfer Ericsson CR Rel-16 38.305 16.6.0 0083 - F NR\_pos-Core

Discussion:

Ericsson consider that the update of definitions is important; there is also a small correction in section 8.9.2.

Nokia think this is a repeat of a discussion from last meeting and they do not see the differentiation in the definitions as essential. If anything needs to be qualified it can be described as LTE or NR. The change to section 8.9.2 looks editorial and could be merged.

Ericsson think we made a parallel correction already in stage 3 to introduce the DL-PRS terminology, and it would be good to align.

Intel agree we made this change in stage 3, so they agree with the DL-PRS change, but they are not sure about the change to “UL-SRS” since SRS is always in UL.

Qualcomm agree with Intel, but think we use the term “UL-SRS” consistently in other places.

Nokia acknowledge the change is not harmful.

Apple support the change.

=> Agreed

### 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).

[R2-2110172](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110172%20Correction%20to%20posSRS%20capability%20associated%20with%20PRS-only%20TP.doc) Correction to posSRS capability associated with PRS-only TP Huawei, HiSilicon CR Rel-16 38.306 16.6.0 0648 - F NR\_pos-Core

=> Handled in email discussion [AT116-e][616]

### 6.3.3 LPP corrections

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

[R2-2110173](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110173%20Correction%20to%20posSRS%20and%20PRS%20capability%20associated%20with%20PRS-only%20TP.doc) Correction to posSRS and PRS capability associated with PRS-only TP Huawei, HiSilicon CR Rel-16 37.355 16.6.0 0322 - F NR\_pos-Core

=> Handled in email discussion [AT116-e][616]

[R2-2111072](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111072%20-%20Correction%20on%20BDS%20B2I.docx) Correction on BDS B2I clock model Swift Navigation, Ericsson CR Rel-16 37.355 16.6.0 0323 - F NR\_pos

Discussion:

CATT want to explain three points. (1) From a requirement perspective, only B1i and B1c were proposed in 3GPP and there is no strong requirement on B2I signal from the BDS ecosystem in China from their understanding. (2) From metadata perspective, they are concerned that the metadata for this clock model may not be provided to the server. (3) However, if there is a strong requirement from some market for B2I, they can accept the change.

Nokia are OK with the CR if it matches the ICD, but have some editorial comments (WI code, impact analysis). Qualcomm agree with Nokia, and they think it makes technical sense to have the change similar to what was captured for other GNSSs.

Swift think LPP should faithfully represent the ICD and we should not make judgements on the priority of the different signals.

Intel point out another editorial issue: -r17 should be -r16.

* Revised in R2-2111366 to address the issues above [CB Tuesday 2021-11-09]
* [AT116-e][617][POS] Correction on BDS B2I clock model (Swift)

Scope: Check and update the CR in R2-2111072.

Intended outcome: Agreeable CR

Deadline: Tuesday 2021-11-09 0800 UTC

[R2-2111198](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111198%20Discussion%20on%20LPP%20segmentation%20in%20LCS%20message.docx) Discussion on LPP segmentation in LCS message vivo discussion Rel-16 NR\_pos-Core

Discussion:

Chair wonders if this can be driven by contributions in SA2. vivo think this would be acceptable but in discussion last meeting, the majority wanted to send an LS to SA2.

Nokia think this should be handled by contributions in SA2.

Qualcomm think this is a Rel-17 issue that does not exist in Rel-16, because EDT is one-shot and segmentation cannot apply. They think it should be discussed in Rel-17 in the context of SDT and subsequent UL data transmission only.

Intel understand that LPP segmentation has existed for a long time, so this is not a new issue and not specific to EDT, but they agree it could be started in SA2.

Ericsson indicate that the SA2 spec does not allow multiple LCS messages to be sent, so LPP segmentation would require carrying multiple LPP segments in one LCS message; they agree that this should be discussed directly in SA2.

=> Noted (can be originated in SA2)

### 6.3.4 MAC corrections

[R2-2110171](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110171%20Discussion%20on%20impacts%20of%20TA%20expiry%20and%20SR%20failure%20on%20uplink%20positoning.docx) Discussion on impacts of TA expiry and SR failure on uplink positoning Huawei, HiSilicon discussion NR\_pos-Core

=> Revised in R2-2111272

[R2-2111272](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111272%20Discussion%20on%20impacts%20of%20TA%20expiry%20and%20SR%20failure%20on%20uplink%20positoning.docx) Discussion on impacts of TA expiry and SR failure on uplink positoning Huawei, HiSilicon discussion NR\_pos-Core

Proposal1: RAN 2 should downselect from the following two options for posSRS at TA expiry or SR failure

 Option1: UE releases posSRS configuration

 Option2: UE keeps the posSRS configuration

Proposal2: If posSRS configuration is kept at TA expiry and SR failure, add to the list of triggers for RACH procedure in the stage2 spec TS 38.300 that random access procedure can be triggered when UL is non-synchronized when the UE is transmitting positioning SRS for uplink positioning. Adopt the TP in Section 6.1

Proposal3: If posSRS configuration is released at TA expiry or SR failure, clarify in the MAC spec that the SRS in the spec includes both mimoSRS and posSRS. Adopt the TP in section 6.2.

Discussion:

vivo think posSRS should be treated the same as normal SRS, i.e. the gNB will update the TA and if the TA timer expires the UE shall consider itself no longer required to send posSRS (option 1).

Qualcomm think this issue is not specific to TA expiry and SR failure; the real question is whether regular SRS rules apply to posSRS. They understand that the same rules do apply because there is no exception written into the MAC spec; in the past we have asked RAN4 about the applicability of DRX-related conditions, and they indicated that the same rules apply but we did not update our spec. Where there is a divergence in PHR handling, we documented the difference, and they think this is the only such case. They also think it is too late to change this in Rel-16.

Ericsson agree with Qualcomm.

Intel agree with the argument from vivo and Qualcomm, and point out that normal SRS can also be used for positioning measurements, which argues for consistency.

Samsung think there is no need to handle posSRS differently.

CATT agree with other companies that we should go with option 1.

Huawei think option 1 is OK, but they have one caveat: SR failure just means the UE cannot send SR to the gNB, which impacts scheduling but has no obvious relation to positioning. So they understand that SR failure is not a good motivation to release posSRS. However, they also understand Qualcomm’s point that it is late, and they can accept option 1. They think a CR may still be needed to add a note for clarification (section 6.2 of the contribution).

Ericsson think we discussed previously if any spec text was needed and there was a majority view to have no impact. They think it is clear that posSRS follows the behaviour of normal SRS.

Nokia see some value in the clarification, but think it could be more specific about its relation to the MAC procedure. They think a NOTE is sufficient.

Qualcomm also think a NOTE could be helpful, and would suggest to add “unless explicitly stated otherwise” (as we do for other notes, and this would account for the PHR case).

Agreements:

Capture a NOTE in TS 38.321 indicating that posSRS is treated the same as SRS unless specified otherwise. CR to be seen in CB session.

* [AT116-e][618][POS] CR to 38.321 on posSRS handling (Huawei)

Scope: Draft a CR to 38.321 capturing the NOTE agreed under agenda item 6.3.4.

Intended outcome: Agreeable CR in R2-2111367

Deadline: Tuesday 2021-11-09 0800 UTC

# 7 Rel-16 EUTRA Work Items

Only essential corrections. No documents should be submitted to 7. Please submit to 7.x

## 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.

# 8 Rel-17 NR Work Items

## 8.7 NR Sidelink relay

(NR\_SL\_Relay-Core; leading WG: RAN2; REL-17; WID: RP-212601)

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.

Incoming LSs and related documents

[R2-2109303](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109303_C1-214795.doc) Reply LS on establishment/resume cause value and UAC on L2 SL Relay (C1-214795; contact: OPPO= CT1 LS in Rel-17 5G\_ProSe, NR\_SL\_relay-Core To:RAN2 Cc:SA2, RAN3

[R2-2111236](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Docs\R2-2111236.zip) Reply LS on discovery and relay (re)selection (S2-2107972; contact: CATT) SA2 LS in Rel-17 5G\_ProSe, NR\_SL\_relay-Core To:RAN2

[R2-2111123](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111123%20-%20Discussion%20on%20LS%20on%20discovery%20and%20relay%20(re)selection.docx) Discussion on LS on discovery and relay (re)selection OPPO discussion Rel-17 NR\_SL\_relay-Core

[R2-2111253](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111253_Discussion%20on%20LS%20on%20discovery%20and%20relay%20(re)selection.docx) Discussion on LS on discovery and relay (re)selection CATT discussion Late

Organisational documents

[R2-2109399](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109399%20-%20Work%20planning%20for%20R17%20SL%20relay.docx) Work planning for R17 SL relay OPPO, CMCC Work Plan Rel-17 NR\_SL\_relay-Core

[R2-2109401](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109401%20-%20Remaining%20open%20issues%20for%20R17%20SL%20relay_V5.docx) Remaining open issues for R17 SL relay OPPO discussion Rel-17 NR\_SL\_relay-Core Late

Running CRs

[R2-2109400](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Docs\R2-2109400.zip) Running CR for TS 38.351 OPPO draft TS Rel-17 38.351 0.0.0 NR\_SL\_relay-Core

[R2-2109543](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Docs\R2-2109543.zip) Stage 2 Running CR on Introduction of R17 SL Relay MediaTek Inc. discussion Rel-17

[R2-2110054](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110054%20Running%20CR%20for%2038.321%20(SL%20Relay).doc) MAC running CR for SL relay Apple (rapporteur) draftCR Rel-17 38.321 16.6.0 B NR\_SL\_relay-Core Late

[R2-2110447](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110447%20Running%20CR%20of%2038.323%20for%20SL%20relay.docx) Running CR of 38.323 for SL Relay Samsung draftCR Rel-17 38.323 16.5.0 B NR\_SL\_relay-Core

[R2-2110490](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110490%20RRC%20running%20CR%20for%20SL%20relay.docx) RRC running CR for SL relay Huawei, HiSilicon draftCR Rel-17 38.331 16.6.0 B NR\_SL\_relay-Core

[R2-2110687](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110687-%20Running%20CR%20of%2038.304%20for%20SL%20relay.docx) Running CR of 38.304 for SL relay Ericsson draftCR Rel-17 38.304 16.6.0 B NR\_SL\_relay-Core

### 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 [Post115-e][610][Relay] Control plane procedures (InterDigital)

Email discussion summary

[R2-2109928](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109928%20-%20summary%20of%20%5b610%5d_phase2_v3_Rapp.docx) Summary of [POST115-e][610][Relay] Control Plane Procedures (InterDigital) InterDigital discussion Rel-17 FS\_NR\_SL\_relay

Summary document

The following documents will not be individually treated

[R2-2109414](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109414-%20Discussion%20on%20Control%20Plane%20Aspects%20for%20L2%20Relay.docx) Discussion on Control Plane Aspects for L2 Relay OPPO discussion Rel-17 NR\_SL\_relay-Core

[R2-2109419](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109419%20-%20Remaining%20issues%20on%20paging%20and%20SIB%20forwarding%20in%20L2%20U2N%20relay.doc) Remaining issues on paging and SIB forwarding in L2 U2N relay Qualcomm Incorporated discussion NR\_SL\_relay-Core

[R2-2109427](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109427%20-%20Remaining%20issues%20on%20RRC%20connection%20management%20of%20L2%20U2N%20relay.doc) Remaining issues on RRC connection management of L2 U2N relay Qualcomm Incorporated discussion NR\_SL\_relay-Core

[R2-2109507](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109507.docx) Control Plane Procedures of L2 Relay CATT discussion Rel-17 NR\_SL\_relay-Core

[R2-2109508](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109508.docx) Discussion on Remote UE's Paging via Dedicated RRC Message CATT discussion Rel-17 NR\_SL\_relay-Core

[R2-2109544](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109544%20Discussion%20on%20SI%20Modification%20and%20PWS%20Notification.docx) Discussion on SI Modification and PWS Notification MediaTek Inc. discussion Rel-17

[R2-2109545](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109545%20Remaining%20issue%20for%20RLF%20handling.docx) Remaining issue for RLF handling MediaTek Inc. discussion Rel-17

[R2-2109556](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109556%20Discussion%20on%20RRC%20connection%20management%20for%20L2%20sidelink%20relay.docx) Discussion on RRC connection management for L2 sidelink relay Huawei, HiSilicon discussion Rel-17 NR\_SL\_relay-Core

[R2-2109557](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109557%20SI%20forwarding%20and%20paging%20for%20L2%20sidelink%20relay.docx) SI forwarding and paging for L2 sidelink relay Huawei, HiSilicon discussion Rel-17 NR\_SL\_relay-Core

[R2-2109644](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109644.doc) Discussion on left issue for paging delivery SHARP Corporation discussion NR\_SL\_relay-Core

[R2-2109696](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109696%20SI%20forwarding.doc) SI forwarding NEC Corporation discussion Rel-17 NR\_SL\_relay-Core

[R2-2109729](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109729%20Monitoring%20Paging%20by%20a%20U2N%20Relay.doc) Monitoring Paging by a U2N Relay Lenovo, Motorola Mobility discussion NR\_SL\_relay-Core

[R2-2109763](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109763_Discussion%20on%20system%20information%20delivery%20open%20issues.docx) Discussion on system information delivery open issues China Telecom discussion Rel-17 NR\_SL\_relay-Core

[R2-2109811](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109811%20SIB%20Handling%20in%20Sidelink%20UE-to-Nwk%20Relay.docx) SIB handling in sidelink L2 U2N relay Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SL\_relay-Core R2-2105739

[R2-2109859](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109859%20Consideration%20on%20the%20connection%20management%20of%20SL%20relay.doc) Consideration on the connection management of SL relay ZTE, Sanechips discussion Rel-17

[R2-2109860](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109860%20Consideration%20on%20the%20system%20information%20acquisition%20and%20paging%20in%20SL%20relay.doc) Consideration on the system information acquisition and paging in SL relay ZTE, Sanechips discussion Rel-17

[R2-2109929](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109929%20(R17%20SL%20Relay%20SI_AI8721%20Paging).doc) Open Issues on Paging Procedure for L2 UE to NW Relays InterDigital discussion Rel-17 FS\_NR\_SL\_relay

[R2-2109930](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109930%20(R17%20SL%20Relay%20SI_AI8721%20SI).doc) Open Issues on SI for L2 UE to NW Relays InterDigital discussion Rel-17 FS\_NR\_SL\_relay

[R2-2109934](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109934%20(R17%20SL%20Relay%20SI_AI8721%20ConnEst%20Procedure).doc) Connection Establishment Procedure for L2 UE to NW Relays InterDigital discussion Rel-17 FS\_NR\_SL\_relay

[R2-2109959](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109959_SLRelay_SI_Intel.docx) Remaining issues of system information forwarding for L2 U2N Remote UE Intel Corporation discussion Rel-17 NR\_SL\_relay-Core

[R2-2109964](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109964_SL%20Relay%20Access%20Control_Intel.docx) Access control support for L2 U2N Relay Intel Corporation discussion Rel-17 NR\_SL\_relay-Core

[R2-2110064](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110064%20Discussion%20on%20SIB%20forwarding%20.doc) Remaining issues on SIB forwarding Apple discussion Rel-17 NR\_SL\_relay-Core

[R2-2110065](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110065%20Discussion%20on%20RNA%20Update%20procedures%20in%20L2%20UE-to-NW%20Relay.doc) RNA Update via L2 UE-to-NW Relay Apple discussion Rel-17 NR\_SL\_relay-Core

[R2-2110121](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110121.doc) Discussion on control plane procedures for L2 U2N relay Spreadtrum Communications discussion Rel-17

[R2-2110163](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Docs\R2-2110163.zip) Control plane procedure - SIB delivery, and timer for remote UE LG Electronics France discussion Rel-17 NR\_SL\_relay

[R2-2110165](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110165_L2_control.doc) L2 relay control plane issues Kyocera discussion

[R2-2110213](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110213_%20Open%20issues%20on%20L2%20Control%20Plane%20Procedures.docx) Open issues on L2 Control Plane Procedures vivo discussion

[R2-2110215](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110215_Draft%20LS%20on%20L2%20U2N%20relay%20issues.docx) Draft LS on L2 U2N relay issues vivo LS out To:SA2, CT1

[R2-2110221](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110221%20Relay%20Discussion%20on%20SI%20and%20short%20message%20delivery.doc) Discussion on SI and short message delivery Xiaomi discussion

[R2-2110222](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110222%20Relay%20Connection%20control.doc) Discussion on connection control Xiaomi discussion

[R2-2110284](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110284%20Discussion%20on%20access%20control%20of%20L2%20relay.doc) Discussion on access control of L2 relay SHARP Corporation discussion

[R2-2110303](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110303%20Considerations%20on%20control%20plane%20issues%20v1.0.doc) Considerations on control plane issues Lenovo, Motorola Mobility discussion Rel-17

[R2-2110350](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110350.doc) Area specific SI issue in L2 relay Sony discussion Rel-17 NR\_SL\_relay-Core

[R2-2110363](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110363%20Discussion%20on%20establishment%20cause%20of%20relay%20UE.doc) Discussion on establishment cause of relay UE Xiaomi, Apple, Lenovo, Motorola Mobility discussion

[R2-2110448](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110448%20Connection%20management%20and%20RLC%20channel%20configuration.doc) Connection management and PC5/Uu RLC configurations Samsung discussion Rel-17 NR\_SL\_relay-Core

[R2-2110449](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110449%20Remaining%20issues%20for%20SI%20message%20forwarding.doc) Remaining issues for SI message forwarding Samsung discussion Rel-17 NR\_SL\_relay-Core

[R2-2110450](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110450%20Remaining%20issues%20for%20paging%20delivery.doc) Remaining issues for paging delivery Samsung discussion Rel-17 NR\_SL\_relay-Core

[R2-2110470](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110470.docx) Issue with Forwarding SIB9 to remote UE Nokia, Nokia Shanghai Bell discussion NR\_SL\_relay-Core

[R2-2110688](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110688-%20Remaining%20issues%20on%20control%20plane%20for%20L2%20sidelink%20relay.docx) Remaining issues on control plane for L2 sidelink relay Ericsson discussion Rel-17 NR\_SL\_relay-Core

[R2-2111003](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111003%20Discussion%20on%20paging%20procedure%20and%20information%20for%20U2N%20Relay.docx) Discussion on paging procedure and information for U2N Relay ASUSTeK discussion Rel-17 NR\_SL\_relay-Core

[R2-2111029](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111029%20SI%20modification.docx) Relayed System Information Acquisition Futurewei discussion Rel-17 NR\_SL\_relay-Core

[R2-2111190](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111190%20SI%20acquisition,%20CN%20Registration%20and%20RNAU.doc) SI acquisition, CN Registration and RNAU Lenovo, Motorola Mobility 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.

Summary document

R2-2111365 Summary of Agenda item 8.7.2.2: Service continuity Huawei, HiSilicon discussion Rel-17 NR\_SL\_relay-Core

The following documents will not be individually treated

[R2-2109428](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109428%20-Remaining%20issues%20on%20service%20continuity%20of%20L2%20U2N%20relay.doc) Remaining issues on service continuity of L2 U2N relay Qualcomm Incorporated discussion NR\_SL\_relay-Core

[R2-2109509](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109509.docx) Service Continuity for L2 U2N Relay CATT discussion Rel-17 NR\_SL\_relay-Core

[R2-2109546](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109546%20Remaining%20open%20issues%20for%20Service%20Continuity.docx) Remaining open issues for Service Continuity MediaTek Inc. discussion Rel-17

[R2-2109705](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109705%20Remaining%20issues%20on%20service%20continuity.doc) remaining issues on service continuity NEC Corporation discussion Rel-17 NR\_SL\_relay-Core

[R2-2109780](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109780%20Discussion%20on%20remaining%20issues%20on%20service%20continuity.doc) Discussion on remaining issues on service continuity ZTE Corporation, Sanechips discussion Rel-17 NR\_SL\_relay-Core

[R2-2109933](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109933%20(R17%20SL%20Relay%20SI_AI8722%20Service_Continuity).doc) Open Issues on Service Continuity for L2 UE to NW Relays InterDigital discussion Rel-17 FS\_NR\_SL\_relay

[R2-2109962](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109962_SL_ServiceContinuity_Intel.docx) Service continuity left over issues for L2 U2N relaying Intel Corporation discussion Rel-17 NR\_SL\_relay-Core

[R2-2110059](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110059%20Discussion%20on%20Relay%20UE%20identifier.docx) Discussion on U2N Relay UE Identifier Apple discussion Rel-17 NR\_SL\_relay-Core

[R2-2110060](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110060%20LS%20on%20U2N%20relay%20UE%20Identifier.docx) [Draft]LS on U2N relay UE identifier Apple LS out Rel-17 NR\_SL\_relay-Core To:SA2

[R2-2110066](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110066%20Discussion%20on%20servie%20continuity.doc) Discussion on remaining issues of service continuity Apple discussion Rel-17 NR\_SL\_relay-Core

[R2-2110164](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Docs\R2-2110164.zip) Service continuity – depending on relay state LG Electronics France discussion Rel-17 NR\_SL\_relay

[R2-2110214](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110214%20Remaining%20issues%20on%20service%20continuity%20in%20L2%20U2N%20relay.docx) Remaining issues on service continuity in L2 U2N relay vivo discussion

[R2-2110220](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110220%20Relay%20Discussion%20on%20service%20continuity.doc) Discussion on service continuity Xiaomi discussion

[R2-2110302](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110302%20Path%20switching%20in%20L2%20U2N%20relay%20v1.0.doc) Path switching in L2 U2N relay case Lenovo, Motorola Mobility discussion Rel-17

[R2-2110351](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110351.doc) Service continuity open issues in L2 NR sidelink rela Sony discussion Rel-17 NR\_SL\_relay-Core

[R2-2110371](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110371%20Relay%20UE%20RRC%20state%20in%20direct%20to%20indirect%20path%20switching.docx) Discussion on supported relay UE RRC states in direct to indirect path switch Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SL\_relay-Core

[R2-2110488](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110488%20Discussion%20on%20service%20continuity%20for%20L2%20UE%20to%20NW%20Relay.docx) Discussion on service continuity for L2 U2N Relay Huawei, HiSilicon discussion Rel-17 NR\_SL\_relay-Core

[R2-2110499](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110499%20Discussion%20NR%20sidelink%20relay%20service%20continuity.docx) Discussion on NR sidelink relay service continuity OPPO discussion Rel-17 NR\_SL\_relay-Core

[R2-2110689](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110689-%20Discussion%20on%20selecting%20relay%20UE%20in%20RRC_IDLE%20or%20INACTIVE%20during%20path%20switch.docx) Discussion on selecting relay UE in RRC\_IDLE or INACTIVE during path switch Ericsson discussion Rel-17 NR\_SL\_relay-Core

[R2-2110690](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110690-%20Remaining%20Issues%20on%20service%20continuity%20for%20L2%20Sidelink%20relay.docx) Remaining Issues on service continuity for L2 Sidelink relay Ericsson discussion Rel-17 NR\_SL\_relay-Core

[R2-2111042](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111042%20Service%20continuity%20for%20L2%20relay.docx) Service continuity for L2 relay CMCC 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.

Summary document

The following documents will not be individually treated

[R2-2109398](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109398%20-%20Left%20issues%20for%20adaptation%20layer.docx) Left issues for adaptation layer OPPO discussion Rel-17 NR\_SL\_relay-Core

[R2-2109429](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109429%20-%20Further%20discussion%20adaptation%20layer%20of%20L2%20U2N%20relay.doc) Further discussion on adaptation layer of L2 U2N relay Qualcomm Incorporated discussion NR\_SL\_relay-Core

[R2-2109510](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109510.docx) Adaption Layer Design for L2 U2N Relay CATT discussion Rel-17 NR\_SL\_relay-Core

[R2-2109547](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109547%20Configurations%20for%20Bearer%20Mapping.docx) Configurations for Bearer Mapping MediaTek Inc. discussion Rel-17

[R2-2109558](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109558%20Adaptation%20layer%20functionalities%20for%20L2%20U2N%20relay_v01.docx) Adaptation layer functionalities for L2 U2N relay Huawei, HiSilicon discussion Rel-17 NR\_SL\_relay-Core

[R2-2109693](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109693%20Remaining%20issues%20of%20Adaptation%20layer.docx) Remaining issues of Adaptation layer MediaTek Inc. discussion Rel-17

[R2-2109848](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109848%20adaptation%20layer.docx) Bearer Mapping Configuration of Adaptation Layer Futurewei discussion Rel-17 NR\_SL\_relay-Core

[R2-2109862](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109862%20Discussion%20on%20adaptation%20layer%20design.doc) Discussion on adaptation layer design ZTE, Sanechips discussion Rel-17

[R2-2109906](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109906%20-UP%20aspects%20on%20Layer%202%20SL%20relay.docx) UP aspects on Layer 2 SL relay Ericsson discussion Rel-17 NR\_SL\_relay-Core

[R2-2109935](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109935%20(R17%20SL%20Relay%20WI_AI8723%20Protocol%20Architectures)%20.doc) Adaptation Layer Design Remaining Issues InterDigital discussion Rel-17 FS\_NR\_SL\_relay

[R2-2109963](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109963_SLRelay_adaptation_layer_Intel.docx) L2 U2N relaying Adaptation layer design open aspects Intel Corporation discussion Rel-17 NR\_SL\_relay-Core

[R2-2110216](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110216%20Adaptation%20Layer%20for%20Uu%20and%20PC5.docx) Adaptation Layer for Uu and PC5 vivo discussion

[R2-2110376](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110376%20Finalizing%20design%20of%20Adapt%20layer.doc) Finalizing design of Adapt layer Samsung Electronics GmbH discussion

[R2-2110385](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110385%20On%20multiplexing%20of%20relay%20UE%20and%20remote%20UE%20traffic.doc) On multiplexing of relay UE and remote UE traffic Samsung Electronics GmbH discussion

[R2-2110987](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110987-Discussion%20on%20Adaptation%20Layer%20for%20L2%20U2N%20Relay.doc) Discussion on Adaptation Layer for L2 U2N Relay ETRI discussion Rel-17 NR\_SL\_relay-Core

[R2-2111004](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111004%20Discussion%20on%20bearer%20mapping%20on%20PC5%20adaptation%20layer.docx) Discussion on bearer mapping on PC5 adaptation layer ASUSTeK discussion Rel-17 38.300 NR\_SL\_relay-Core

[R2-2111041](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111041%20Discussion%20on%20adaption%20layer%20for%20L2%20U2N%20relay.docx) Discussion on adaption layer for L2 U2N relay CMCC 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.

Including outcome of [Post115-e][604][Relay] Relay QoS (Apple)

Email discussion summary

[R2-2110053](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110053%20%5bPost115-e%5d%5b604%5d%5bRelay%5d%20Relay%20QoS%20(Apple)_summary_final.docx) Summary of [Post115-e][604][Relay] Relay QoS (Apple) Apple discussion Rel-17 NR\_SL\_relay-Core

Summary document

[R2-2111273](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111273%20-%20%5bOffline-604%5d%5bRelay%5d%20Summary%20of%20Agenda%20item%208.7.2.4%20QoS%20(Qualcomm).doc) Summary of Agenda item 8.7.2.4: QoS Qualcomm Incorporated discussion NR\_SL\_relay-Core

The following documents will not be individually treated

[R2-2109433](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109433%20-%20Remaining%20issues%20on%20E2E%20QoS%20enforcement%20in%20L2%20U2N%20relay.doc) Remaining issues on E2E QoS enforcement in L2 U2N relay Qualcomm Incorporated discussion NR\_SL\_relay-Core

[R2-2109511](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109511_QoS%20Management%20for%20L2%20Sidelink%20Relay.docx) QoS Management for L2 Sidelink Relay CATT discussion Rel-17 NR\_SL\_relay-Core

[R2-2109691](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109691.docx) Views on QoS for sidelink relay Continental Automotive GmbH other Rel-17

[R2-2109822](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109822_Considerations%20on%20voice%20and%20video%20support%20for%20Relays.docx) Considerations on voice and video support for Relays Philips International B.V., MediaTek, Vivo, FirstNet discussion Rel-17 NR\_SL\_relay-Core

[R2-2109853](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109853.docx) QoS measurement and reporting for path switch procedure Nokia, Nokia Shanghai Bell discussion NR\_SL\_relay-Core

[R2-2109863](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109863%20Discussion%20on%20QoS%20of%20Sidelink%20relay.doc) Discussion on QoS of SL relay ZTE, Sanechips discussion Rel-17

[R2-2109905](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109905%20-%20Aspects%20for%20QoS%20management%20with%20SL%20relay.docx) Aspects for QoS management with SL relay Ericsson discussion Rel-17 NR\_SL\_relay-Core

[R2-2109931](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109931%20(R17%20SL%20Relay%20WI_AI8724%20QoS)%20.doc) Discussion on QoS for L2 UE to NW Relays InterDigital, Philips discussion Rel-17 FS\_NR\_SL\_relay

[R2-2110217](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110217_E2E%20QoS.docx) Left issues on E2E QoS management vivo discussion

[R2-2110272](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110272%20On%20recommended%20bit%20rate.docx) On recommended bit rate MediaTek Inc. discussion Rel-17 NR\_SL\_relay-Core

[R2-2110297](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110297-%20QoS%20for%20L2%20Sidelink%20Relay.docx) QoS for L2 Sidelink Relay Fraunhofer IIS, Fraunhofer HHI discussion Rel-17

[R2-2110451](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110451%20QoS%20flow%20control%20for%20L2%20U2N%20relay.doc) QoS flow control for L2 U2N Relay Samsung, Philips discussion Rel-17 NR\_SL\_relay-Core R2-2107712

[R2-2110498](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110498%20Discuss%20on%20QoS%20for%20layer%202%20relay.docx) Discussion on QoS for layer 2 relay OPPO discussion Rel-17 NR\_SL\_relay-Core

[R2-2110562](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110562%20Discussion%20on%20QoS%20management%20of%20L2%20U2N%20relay.docx) Discussion on QoS management of L2 U2N relay Huawei, HiSilicon discussion Rel-17 NR\_SL\_relay-Core

[R2-2110750](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110750.docx) QoS priority mapping combinations Beijing Xiaomi Mobile Softwar discussion Rel-17

[R2-2111040](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111040%20Mechanisms%20for%20E2E%20QoS%20management.docx) Mechanisms for E2E QoS management CMCC 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 Discovery

Including 5G ProSe Direct Discovery for the non-relaying case. Re-using LTE discovery as baseline. This agenda item may utilise a summary document (decision to be made based on submitted tdocs).

Including outcome of [Post115-e][611][Relay] Discovery shared/dedicated pool issue (Qualcomm)

Email summary

[R2-2109430](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109430%20-%20Summary%20report%20of%20%5bPost115-e%5d%5b611%5d%5bRelay%5d%20Discovery%20shared%20and%20dedicated%20pool%20issue%20(Qualcomm).doc) Summary report of [Post115-e][611][Relay] Discovery shared and dedicated pool issue (Qualcomm) Qualcomm Incorporated discussion NR\_SL\_relay-Core

Summary document

R2-2111255 Summary of AI 8.7.3.1 CATT discussion

* [AT116-e][612][Relay] Non-relay discovery (OPPO)

Scope: Evaluate the spec impact of non-relay discovery specific aspects and determine a way forward for handling this objective.

Intended outcome: Report to CB session, in R2-2111363

Deadline: Tuesday 2021-11-09 0800 UTC (report available)

The following documents will not be individually treated

[R2-2109431](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109431%20-%20Remaining%20issues%20on%20discovery.doc) Remaining issues on discovery Qualcomm Incorporated discussion NR\_SL\_relay-Core

[R2-2109512](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109512_Left%20issues%20for%20Sidelink%20Discovery.docx) Left Issues for Sidelink Discovery CATT discussion Rel-17 NR\_SL\_relay-Core

[R2-2109809](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109809%20Discussion%20on%20SL%20discovery%20resource%20pool%20configuration.docx) Discussion on SL discovery resource pool configuration Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SL\_relay-Core

[R2-2109857](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109857%20Further%20discussion%20on%20relay%20discovery.doc) Further discussion on Relay discovery ZTE, Sanechips discussion Rel-17

[R2-2109903](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109903%20-%20Left%20issues%20for%20SL%20discovery.docx) Left issues for SL discovery Ericsson discussion Rel-17 NR\_SL\_relay-Core

[R2-2109932](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109932%20(R17%20SL%20Relay%20WI_AI8731%20Discovery).doc) Using Shared and Dedicated Resource Pools for Discovery InterDigital discussion Rel-17 FS\_NR\_SL\_relay

[R2-2109960](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109960_SL_Discovery_Intel.docx) Leftover aspects of discovery for L2 U2N relaying Intel Corporation discussion Rel-17 NR\_SL\_relay-Core

[R2-2110218](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110218%20-Remaining%20Issues%20of%20Discovery%20Message%20Transmission.docx) Remaining Issues of Discovery Message Transmission vivo discussion

[R2-2110271](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110271%20Remaining%20issues%20of%20Relay%20Discovery.docx) Remaining issues of Relay Discovery MediaTek Inc. discussion Rel-17 NR\_SL\_relay-Core

[R2-2110304](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110304%20Relay%20Discovery%20in%20L2%20and%20L3%20relay%20case%20v1.0.doc) Relay Discovery for L2 and L3 relay Lenovo, Motorola Mobility discussion Rel-17

[R2-2110452](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110452%20PDCP%20layer%20aspects%20for%20SL%20relay.doc) PDCP layer aspects for SL discovery Samsung discussion Rel-17 NR\_SL\_relay-Core

[R2-2110489](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110489%20Remaining%20issues%20on%20relay%20discovery.docx) Remaining issues on relay discovery Huawei, HiSilicon discussion Rel-17 NR\_SL\_relay-Core

[R2-2110500](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110500%20Discussion%20on%20common%20issues%20for%20relay%20and%20non-relay%20discovery.docx) Discussion on common issues for relay and non-relay discovery OPPO discussion Rel-17 NR\_SL\_relay-Core

[R2-2110501](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110501%20Discussion%20on%20non-relay%20discovery.docx) Discussion on non-relay discovery OPPO, Apple, Samsung, Ericsson, Qualcomm discussion Rel-17 NR\_SL\_relay-Core

[R2-2110749](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110749.docx) Discovery Range for 5G ProSe Direct Discovery Beijing Xiaomi Mobile Software discussion Rel-17

[R2-2110751](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110751.docx) Discovery with simultaneous Shared and Dedicated Resource Pools Beijing Xiaomi Mobile Softwar discussion Rel-17

#### 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).

Summary document

R2-2111223 Summary of AI 8.7.3.2 Relay (re)selection vivo discussion Rel-17 NR\_SL\_relay-Core

The following documents will not be individually treated

[R2-2109432](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109432%20-%20Remaining%20issues%20on%20relay%20(re)selection.doc) Remaining issues on relay (re)selection Qualcomm Incorporated discussion NR\_SL\_relay-Core

[R2-2109513](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109513_New%20Triggers%20for%20Relay%20Reselection.docx) New Triggers for Relay Reselection CATT discussion Rel-17 NR\_SL\_relay-Core

[R2-2109823](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109823_U2N%20Relay%20UE%20operation%20Threshold%20Conditions%20-%20Impact%20of%20UE%20mobility.docx) U2N Relay UE operation Threshold Conditions: Impact of UE Mobility Philips International B.V. discussion Rel-17 NR\_SL\_relay-Core

[R2-2109858](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109858%20Further%20discussion%20on%20relay%20selection.doc) Further discussion on Relay selection ZTE, Sanechips discussion Rel-17

[R2-2109904](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109904%20-%20Aspects%20for%20SL%20relay%20selection%20and%20reselection.docx) Aspects for SL relay selection and reselection Ericsson discussion Rel-17 NR\_SL\_relay-Core

[R2-2109961](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109961_SL%20Relay%20Reselection_Intel.docx) Open aspects of L2 U2N Relay (re)selection Intel Corporation discussion Rel-17 NR\_SL\_relay-Core

[R2-2110166](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110166_relay_reselection.doc) Relay reselection upon HO to another gNB Kyocera discussion

[R2-2110219](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110219_Remaining%20issues%20on%20Relay%20(re)selection.docx) Remaining issues on Relay (re)selection vivo discussion

[R2-2110285](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110285%20Discussion%20on%20sidelink%20relay%20reselection.doc) Discussion on sidelink relay reselection SHARP Corporation discussion R2-2107872

[R2-2110305](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110305%20Relay%20(re)selection%20in%20L2%20and%20L3%20relay%20case%20v1.0.doc) Relay (re)selection for L2 and L3 relay Lenovo, Motorola Mobility discussion Rel-17

[R2-2110370](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110370%20CPErrorHandling.docx) Uu connection error handling Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SL\_relay-Core

[R2-2110502](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110502%20Discussion%20on%20remaining%20issue%20of%20relay%20reselection.docx) Discussion on remaining issue of relay reselection OPPO discussion Rel-17 NR\_SL\_relay-Core

[R2-2110617](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110617%20Discussion%20on%20relay%20reselection.docx) Discussion on relay reselection aspects Huawei, HiSilicon discussion NR\_SL\_relay-Core

[R2-2110767](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110767.docx) 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 R2-2108462

## 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.

Incoming LSs with RAN2 in Cc:

[R2-2109316](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109316_R1-2108509.docx) Reply LS on determination of location estimates in local co-ordinates (R1-2108509; contact: Ericsson) RAN1 LS in Rel-17 5G\_eLCS\_ph2 To:SA2 Cc:RAN2, RAN3

[R2-2109339](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109339_R3-214312.docx) Reply LS on determination of location estimates in local co-ordinates (R3-214312; contact: Huawei) RAN3 LS in Rel-17 5G\_eLCS\_ph2 To:SA2 Cc:RAN1, RAN2

[R2-2111216](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111216_R1-2110644.docx) LS on DL PRS reception priority by RRC\_INACTIVE UEs (R1-2110644; contact: Intel) RAN1 LS in Rel-17 NR\_pos\_enh-Core To:RAN4 Cc:RAN2

LS from RTCM

[R2-2109392](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Docs\R2-2109392.zip) Liaison Note to 3GPP RAN 2, Reply comments to letter R2-2106596 (RTCM Paper 2021-SC134-0113) RTCM LS in To:RAN2

[R2-2109807](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109807%20Discussion%20RTCM%20reply%20to%20RAN2%20on%20GNSS%20integrity%20coordination.docx) Discussion RTCM reply to RAN2 on GNSS integrity coordination ESA, Intel Corporation discussion Rel-17 FS\_NR\_pos\_enh

* [AT116-e][611][POS] LS to RTCM (ESA)

Scope: Discuss coordination with RTCM, taking into account the way-forward proposals in R2-2109807 and related parts of R2-2110181:

* Conclude on the intention to specify GNSS integrity signalling in Rel-17
* Determine what information we intend to share with RTCM
* Draft an LS reply (TP to be endorsed later)

Intended outcome: Report in R2-2111361 and approvable LS in R2-2111362

Deadline: Friday 2021-11-05 1000 UTC (comments), Monday 2021-11-08 1100 UTC (output available)

Other incoming LSs with RAN2 in To:

[R2-2109322](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109322_R1-2108564.docx) LS to RAN2 on SRS for Positioning Transmission by UEs in RRC\_INACTIVE State (R1-2108564; contact: Intel) RAN1 LS in Rel-17 NR\_pos\_enh-Core To:RAN2

[R2-2109328](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109328_R1-2108639.docx) LS on PRS measurement outside the measurement gap (R1-2108639; contact: Huawei) RAN1 LS in Rel-17 NR\_pos\_enh-Core To:RAN2, RAN3, RAN4

[R2-2109329](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109329_R1-2108646.docx) LS on beam/antenna information for DL AOD in NR positioning (R1-2108646; contact: Ericsson) RAN1 LS in Rel-17 NR\_pos\_enh-Core To:RAN2, RAN3

[R2-2109345](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109345_R3-214457.docx) Reply LS on Positioning Reference Units (R3-214457; contact: Ericsson) RAN3 LS in Rel-17 NR\_pos\_enh-Core To:RAN1, RAN2 Cc:SA2

[R2-2111211](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111211_R1-2110598.docx) LS on support of SP-SRS for positioning by RRC\_INACTIVE UEs (R1-2110598; contact: Intel) RAN1 LS in Rel-17 NR\_pos\_enh-Core To:RAN2

Draft replies

[R2-2109480](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109480%20%5bDraft%5d%20Response%20LS%20on%20the%20Positioning%20Reference%20Units%20(PRUs)%20for%20positioning%20enhancement.docx) [Draft] Response LS on the Positioning Reference Units (PRUs) for positioning enhancement CATT LS out Rel-17 To:RAN1,SA2 Cc:RAN3

[R2-2110803](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110803%20On%20DL-AoD%20Beam.docx) Beam/antenna information for DL AOD in NR positioning Ericsson discussion Rel-17

Running CRs and related reports

[R2-2109673](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109673_EmailDisc-609-38.305%20Running%20CR%20(Intel)_P2-Summary.docx) Email discussion report on [609][POS] RAT-dependent stage 2 CR (Intel) Intel Corporation discussion Rel-17 NR\_pos\_enh-Core

[R2-2109674](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109674-%20609-Running%2038.305%20CR_v02_Rapp.docx) Email discussion [609] Running 38.305 CR for Positioning WI on RAT dependent positioning methods Intel Corporation draftCR Rel-17 38.305 16.6.0 B NR\_pos\_enh-Core

[R2-2110997](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110997_(Email%20discussion%20report%20on%20%5b614%5d%5bPOS%5d%20GNSS%20Positioning%20Integrity%20Stage%202%20CR%20(InterDigital)).docx) Email discussion report on [614][POS] GNSS Positioning Integrity Stage 2 CR (InterDigital) InterDigital, Inc. discussion Rel-17 NR\_pos\_enh-Core

[R2-2111012](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111012_%20(Running%20CR%20of%2038_305%20GNSS%20Positioning%20Integrity).docx) Running CR of 38.305 for GNSS Positioning Integrity InterDigital, Inc. draftCR Rel-17 38.305 16.6.0 B NR\_pos\_enh-Core

[R2-2111013](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111013%20_(Running%20CR%20of%2036_305%20GNSS%20Positioning%20Integrity).docx) Running CR of 36.305 for GNSS Positioning Integrity InterDigital, Inc. draftCR Rel-16 36.305 16.4.0 B NR\_pos\_enh-Core

### 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.

Including outcome of [Post115-e][605][POS] Pre-configured assistance data (Intel)

Email discussion summary

[R2-2109665](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109665.docx) Summary of [Post115-e][605][POS] Pre-configured assistance data (Intel) Intel Corporation discussion Rel-17 NR\_pos\_enh-Core

Summary document

[R2-2111252](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111252%20-%20Summary%20of%20AI%208.11.2%20Latency%20enhancements%20(Samsung)_v1.docx) Summary of agenda 8.11.2: Latency enhancements Samsung discussion

The following documents will not be individually treated

[R2-2109460](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109460%20Discussion%20on%20positioning%20latency%20reduction.docx) Discussion on positioning latency reduction ZTE discussion

[R2-2109481](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109481%20Discussion%20on%20Enhancements%20for%20Latency%20Reduction.docx) Discussion on Enhancements for Latency Reduction CATT discussion Rel-17 NR\_pos\_enh-Core

[R2-2109663](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109663.docx) Leftover issues on Latency reduction Intel Corporation discussion Rel-17 NR\_pos\_enh-Core

[R2-2109824](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109824_PosLatencyReduction_LenMM.docx) Positioning Latency Reduction Enhancements Lenovo, Motorola Mobility discussion Rel-17

[R2-2109915](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109915%20on%20latency%20impacts.docx) Time T and Measurement Gap for Measurement Time Window Ericsson discussion Rel-17

[R2-2109978](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109978%20Discussion%20on%20latency%20enhancement%20.docx) Discussion on latency enhancement vivo discussion Rel-17 NR\_pos\_enh-Core

[R2-2110103](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110103%20Further%20consideration%20of%20positioning%20latency%20enhancments.doc) Further consideration of positioning latency enhancements OPPO discussion Rel-17 NR\_pos\_enh-Core

[R2-2110178](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110178%20Discussion%20on%20latency%20reduction%20techniques%20from%20other%20groups.docx) Discussion on latency reduction techniques from other groups Huawei, HiSilicon discussion NR\_pos\_enh-Core

[R2-2110179](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110179%20Text%20Proposal%20for%20finer%20granularity%20of%20responseTime.docx) Text Proposal for finer granularity of responseTime Huawei, HiSilicon discussion NR\_pos\_enh-Core

[R2-2110180](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110180%20Discussion%20on%20pre-configured%20PRS.docx) Discussion on pre-configured PRS Huawei, HiSilicon discussion NR\_pos\_enh-Core

[R2-2110336](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110336%20Discussion%20on%20the%20response%20time.docx) Discussion on the response time Samsung discussion Rel-17 NR\_pos\_enh-Core

[R2-2110359](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110359_Pos_latency.docx) Considerations on positioning latency Sony discussion NR\_pos\_enh-Core

[R2-2110798](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110798%20Measurement%20outside%20Gap.docx) PRS Measurements outside measurement Gap Ericsson discussion Rel-17

[R2-2110822](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110822_(Scheduling%20Location%20in%20Advance).docx) Remaining Issues on Scheduling Location in Advance Qualcomm Incorporated discussion

[R2-2110928](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110928%20(R17%20NR%20POS%20WI_AI8112_Latency).doc) Discussion on Enhancements for Latency Reduction InterDigital, Inc. discussion NR\_pos\_enh

[R2-2111075](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111075%20Discussion%20on%20the%20priority%20rule%20for%20latency%20reduction.docx) Discussion on the priority rule for latency reduction CMCC discussion Rel-17 NR\_pos\_enh-Core

[R2-2111081](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111081%20(8.11.2)%20Simulation%20study%20for%20multiple%20QoS%20class%20handling%20for%20latency%20reduction.docx) Simulation study for multiple QoS class handling for latency reduction Samsung Electronics discussion NR\_pos\_enh-Core

[R2-2111083](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111083%20(8.11.2)%20multiple%20QoS%20handling%20for%20latency%20reduction.docx) Handling of multiple QoS for latency reduction Samsung Electronics discussion NR\_pos\_enh-Core

[R2-2111084](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111084%20(8.11.2)%20preconfigured%20AD%20and%20the%20scheduled%20location%20time.docx) Discussion on the Pre-configured Assistance Data Samsung Electronics discussion NR\_pos\_enh-Core

[R2-2111086](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111086%20(8.11.2)%20Latency%20reduction%20via%20configured%20grant%20for%20positioning%20.docx) Latency reduction via configured grant for positioning Samsung Electronics discussion NR\_pos\_enh-Core

[R2-2111105](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111105%20Positioning%20enhancements%20on%20latency%20reduction.doc) Positioning enhancements on latency reduction Xiaomi discussion

### 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 [Post115-e][608][POS] PRS configuration and measurement in RRC\_INACTIVE (vivo)

Email discussion summary

[R2-2109979](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109979%20Summary%20of%20%5bPost115-e%5d%5b608%5d%5bPOS%5d%20PRS%20configuration%20and%20measurement%20in%20RRC_INACTIVE.docx) Summary of [Post115-e][608][POS] PRS configuration and measurement in RRC\_INACTIVE vivo discussion Rel-17 NR\_pos\_enh-Core

Summary document

[R2-2111251](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111251%20Summary%20for%20AI%208.11.3%20on%20positioning%20in%20RRC_INACTIVE%20(OPPO).docx) Summary for AI 8.11.3 on positioning in RRC\_INACTIVE OPPO discussion

The following documents will not be individually treated

[R2-2109461](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109461%20Discussion%20on%20positioning%20in%20RRC%20INACTIVE%20state.docx) Discussion on positioning in RRC INACTIVE state ZTE discussion

R2-2109482 Discussion on UL NR positioning in RRC\_INACTIVE CATT discussion Rel-17 NR\_pos\_enh-Core Withdrawn

[R2-2109758](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109758-%20Supporting%20positioning%20in%20RRC_INACTIVE%20state.docx) Supporting positioning in RRC\_INACTIVE state OPPO discussion Rel-17 NR\_pos\_enh-Core

[R2-2109759](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109759-%20Discussion%20on%20UL%20Positioning%20methods%20in%20RRC_INACTIVE%20state.docx) Discussion on UL Positioning methods in RRC\_INACTIVE state OPPO discussion Rel-17 NR\_pos\_enh-Core

[R2-2109825](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109825_RRCInactive_Positioning_LenMM.docx) On Positioning in RRC\_INACTIVE state Lenovo, Motorola Mobility discussion Rel-17

[R2-2109918](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109918%20Inactive%20mode%20positioning.docx) Discussion on RRC Inactive mode Positioning Ericsson discussion Rel-17

[R2-2109980](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109980%20Discussion%20on%20UL%20positioning%20in%20RRC_INACTIVE.docx) Discussion on UL positioning in RRC\_INACTIVE vivo discussion Rel-17 NR\_pos\_enh-Core

[R2-2110021](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110021%20Support%20of%20UL&UL+DL%20positioning%20in%20RRC_INACTIVE.docx) Support of UL&UL+DL positioning in RRC\_INACTIVE Intel Corporation discussion Rel-17 NR\_pos\_enh-Core

[R2-2110174](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110174%20Way-forward%20for%20RRC_INACTIVE%20positioning.docx) Way-forward for RRC\_INACTIVE positioning Huawei, CATT, China Unicom, CMCC, Fraunhofer, Futurewei, HiSilicon, Intel Corporation, Spreadtrum Communications, OPPO, VIVO, Xiaomi, ZTE Corporation discussion NR\_pos\_enh-Core

[R2-2110249](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110249_RRC_INACTIVE_Fraunhofer.docx) UE Positioning in RRC\_INACTIVE mode Fraunhofer IIS; Fraunhofer HHI discussion Rel-17

[R2-2110337](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110337%20Discussion%20on%20the%20measurement%20reporting%20in%20RRC_INACTIVE.docx) Discussion on the measurement reporting in RRC\_INACTIVE Samsung discussion Rel-17 NR\_pos\_enh-Core

[R2-2110360](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110360_Pos_Inactive.docx) Considerations on positioning RRC Inactive Sony discussion Rel-17 NR\_pos\_enh-Core

[R2-2110823](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110823_(Positioning%20in%20RRC_INACTIVE).docx) Remaining issues for positioning of UEs in RRC\_INACTIVE State Qualcomm Incorporated discussion

[R2-2110824](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110824_(LS%20to%20SA2%20on%20RRC_INACTIVE).docx) [draft] LS on DL-only and RAT-Independent Positioning in RRC\_INACTIVE State Qualcomm Incorporated LS out To:SA2 Cc:RAN3

[R2-2110929](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110929%20(R17%20NR%20POS%20WI%20AI8113_INACTIVE_AD).doc) Discussion on Positioning in RRC INACTIVE state InterDigital, Inc. discussion NR\_pos\_enh

[R2-2110930](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110930%20(R17%20NR%20POS%20WI%20AI8113_INACTIVE_SDT).doc) Discussion on reporting of positioning information using SDT InterDigital, Inc. discussion NR\_pos\_enh

[R2-2111076](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111076%20Considerations%20on%20Positioning%20in%20RRC_INACTIVE%20state.docx) Considerations on Positioning in RRC\_INACTIVE state CMCC discussion Rel-17 NR\_pos\_enh-Core

[R2-2111106](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111106%20Discussion%20on%20positioning%20for%20UEs%20in%20RRC%20Inactive.doc) Discussion on positioning for UEs in RRC Inactive Xiaomi 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 [Post115-e][606][POS] MO-LR for on-demand PRS (CATT)

Email discussion summary

[R2-2109483](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109483%20%5bPost115-e%5d%5b606%5d%5bPOS%5d%20MO-LR%20for%20on-demand%20PRS%20(CATT).docx) Report of [Post115-e][606][POS] MO-LR for on-demand PRS (CATT) CATT discussion Rel-17 NR\_pos\_enh-Core

[R2-2110966](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110966%20%5bDraft%5d%20LS%20on%20MO-LR%20for%20on-demand%20PRS.docx) [Draft] LS on MO-LR for on-demand PRS CATT LS out Rel-17 NR\_pos\_enh-Core To:SA2

Summary document

R2-2111256 Summary of Agenda Item 8.11.4: On-demand PRS Lenovo, Motorola Mobility discussion

The following documents will not be individually treated

[R2-2109462](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109462%20Discussion%20on%20on-demand%20PRS.docx) Discussion on on-demand PRS ZTE discussion

[R2-2109484](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109484-Discussion%20on%20on-demand%20PRS.docx) Discussion on on-demand PRS CATT discussion Rel-17 NR\_pos\_enh-Core

[R2-2109664](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109664.docx) Support of On-Demand PRS request Intel Corporation discussion Rel-17 NR\_pos\_enh-Core

[R2-2109757](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109757%20Discussion%20on%20on-demand%20DL-PRS.doc) Discussion on on-demand DL-PRS OPPO discussion Rel-17 NR\_pos\_enh-Core

[R2-2109826](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109826_On-DemandPRS_LenMM.docx) Support of On-Demand DL-PRS Lenovo, Motorola Mobility discussion Rel-17

[R2-2109916](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109916%20On%20Demand%20PRS.docx) On demand PRS Ericsson discussion Rel-17

[R2-2109981](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109981%20Discussion%20on%20on-demand%20PRS.docx) Discussion on on-demand PRS vivo discussion Rel-17 NR\_pos\_enh-Core

[R2-2110040](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110040%20stage-2-on-demand-PRS-v0.docx) Stage-2 procedure for on-demand PRS Apple discussion NR\_pos\_enh-Core

[R2-2110175](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110175%20Discussion%20on%20on-demand%20PRS.docx) Discussion on on-demand PRS Huawei, HiSilicon discussion NR\_pos\_enh-Core

[R2-2110247](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110247_OnDemandPRS_Fraunhofer.docx) On-demand PRS Fraunhofer IIS, Fraunhofer HHI discussion Rel-17

[R2-2110361](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110361_Pos_PRS_Ondemand.docx) Considerations on positioning PRS On-demand Sony discussion Rel-17 NR\_pos\_enh-Core

[R2-2110825](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110825_(On-demand%20PRS).docx) Remaining issues for on-demand DL-PRS Qualcomm Incorporated discussion

[R2-2110931](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110931%20(R17%20NR%20POS%20WI_AI8114_OnDemand_DL).doc) Discussion on procedures for On-demand PRS for DL-based positioning InterDigital, Inc. discussion NR\_pos\_enh

[R2-2110932](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110932%20(R17%20NR%20POS%20WI_AI8114_OnDemand_DL+UL).doc) Discussion on procedure for On-demand PRS for DL+UL based positioning InterDigital, Inc. discussion NR\_pos\_enh

[R2-2110956](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110956%20On-demand%20PRS%20Stage2.docx) Clarifications to on-demand PRS Stage 2 Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_pos\_enh-Core

[R2-2110957](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110957%20UE-initiated%20On-demand%20PRS%20requests.docx) UE-initiated on-demand PRS requests Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_pos\_enh-Core

[R2-2110958](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110958%20Pre-configured%20assistance%20data%20for%20on-demand%20PRS%20.docx) Pre-configured assistance data for on-demand PRS Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_pos\_enh-Core

[R2-2111090](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111090%20%5bDraft%5d%20LS%20on%20stage-2%20on-demand%20PRS%20procedure.docx) [Draft] LS on stage-2 on-demand PRS procedure CATT LS out Rel-17 NR\_pos\_enh-Core To:RAN3

[R2-2111107](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111107%20Positioning%20enhancement%20to%20on-demand%20DL%20PRS%20.doc) Positioning enhancement to on-demand DL PRS Xiaomi discussion

### 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 [Post115-e][607][POS] Integrity assistance data (Huawei)

Email discussion summary

[R2-2110181](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110181%20%5bPost115-e%5d%5b607%5d%5bPOS%5d%20Integrity%20assistance%20data.docx) Summary of [Post115-e][607][POS] Integrity assistance data Huawei, HiSilicon discussion NR\_pos\_enh-Core

Summary document

[R2-2111263](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111263%20summary%20of%20AI%208.11.5%20GNSS%20positioning%20integrity.docx) Summary of Agenda item 8.11.5- GNSS positioning integrity CATT discussion Rel-17 NR\_pos\_enh-Core

The following documents will not be individually treated

[R2-2109463](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109463%20Discussion%20on%20positioning%20integrity.docx) Discussion on positioning integrity ZTE discussion

[R2-2109920](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109920%20GNSS%20Integrity.docx) On GNSS Integrity Ericsson discussion Rel-17

[R2-2109982](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109982%20Discussion%20on%20open%20issues%20for%20GNSS%20positioning%20integrity.docx) Discussion on open issues for GNSS positioning integrity vivo discussion Rel-17 NR\_pos\_enh-Core

[R2-2110102](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110102%20Discussion%20on%20supporting%20positioning%20integrity%20in%20RAN.doc) Discussion on supporting positioing integrity in RAN OPPO discussion Rel-17 NR\_pos\_enh-Core

[R2-2110141](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110141%20-%20Discussion%20on%20GNSS%20Integrity.docx) Discussion on GNSS Integrity Assistance Data Swift Navigation, Mitsubishi Electric Corporation, Intel Corporation, Ericsson discussion Rel-17

[R2-2110176](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110176%20Remaining%20issues%20on%20positioning%20integrity.docx) Remaining issues on positioning integrity Huawei, HiSilicon discussion NR\_pos\_enh-Core

[R2-2110246](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110246_UE_Integrity_Fraunhofer_Ericsson_ESA.docx) UE-aided detection of threat to GNSS systems and assistance data signaling Fraunhofer IIS; Fraunhofer HHI; Ericsson; ESA discussion R2-2107147

[R2-2110445](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110445%20On%20GNSS%20Positioning%20Integrity.docx) On GNSS Positioning Integrity Nokia, Nokia Shanghai Bell discussion Rel-17 FS\_NR\_pos\_enh

[R2-2110933](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110933%20(R17%20NR%20POS%20WI%20AI8115_GNSS_Integrity).doc) Discussion on procedures and signalling for GNSS positioning integrity InterDigital, Inc. discussion NR\_pos\_enh

[R2-2111087](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111087%20(8.11.5)%20Consideration%20on%20the%20signalling%20design%20for%20Positioning%20Integrity.docx) Consideration on the signalling design for Positioning Integrity Samsung Electronics discussion NR\_pos\_enh-Core

[R2-2111108](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111108%20Discussion%20on%20GNSS%20positioning%20integrity.doc) Discussion on GNSS positioning integrity Xiaomi discussion

### 8.11.6 A-GNSS enhancements

Including support of BDS B2a and B3I signals and support of NavIC.

[R2-2109485](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109485_BDS%2036305%20CR.docx) Introduction of B2a and B3I signal in BDS system in A-GNSS CATT, CAICT draftCR Rel-17 36.305 16.4.0 B NR\_pos\_enh-Core R2-2107138

[R2-2109486](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109486_BDS%2038305%20CR.docx) Introduction of B2a and B3I signal in BDS system in A-GNSS CATT, CAICT draftCR Rel-17 38.305 16.6.0 B NR\_pos\_enh-Core R2-2107139

[R2-2109487](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109487_37355%20CR_Introduction%20of%20B2a%20signal%20in%20BDS%20system%20in%20A-GNSS.docx) Introduction of B2a signal in BDS system in A-GNSS CATT, CAICT draftCR Rel-17 37.355 16.6.0 B NR\_pos\_enh-Core R2-2107140

[R2-2109488](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109488_37355%20CR_Introduction%20of%20B3I%20signal%20in%20BDS%20system%20in%20A-GNSS.docx) Introduction of B3I signal in BDS system in A-GNSS CATT, CAICT draftCR Rel-17 37.355 16.6.0 B NR\_pos\_enh-Core R2-2107141

* [AT116-e][613][POS] BDS B2a and B3I signals (CATT)

Scope: Discuss the CRs in R2-2109485, R2-2109486, R2-2109487, and R2-2109488, collect any comments and produce updates if necessary for endorsement.

Intended outcome: Endorsable CRs

Deadline: Friday 2021-11-05 1000 UTC (comments), Monday 2021-11-08 1100 UTC (output available)

### 8.11.7 Other

Input on other WI objectives.

PRUs

[R2-2109489](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109489%20Discussion%20on%20Positioning%20Reference%20Units(PRUs).docx) Discussion on Positioning Reference Units(PRUs) CATT, ZTE Coroporation, Intel Coroporation discussion Rel-17 NR\_pos\_enh-Core

[R2-2109827](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109827_PRUs_LenMM.docx) Support of Positioning Reference Units Lenovo, Motorola Mobility discussion Rel-17

[R2-2109919](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109919%20PRU.docx) On the Positioning Reference Units aspects Ericsson discussion Rel-17

[R2-2109983](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109983%20Discussion%20on%20support%20for%20positioning%20reference%20unit.docx) Discussion on support for positioning reference unit vivo discussion Rel-17 NR\_pos\_enh-Core

[R2-2110039](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110039%20PRU-v0.docx) Stage-3 impacts of PRU support Apple discussion NR\_pos\_enh-Core

[R2-2110177](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110177%20Discussion%20on%20PRU.docx) Discussion on PRU Huawei, HiSilicon discussion NR\_pos\_enh-Core

[R2-2110826](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110826_(Positioning%20Reference%20Units).docx) Remaining issues for Positioning Reference Units Qualcomm Incorporated discussion

[R2-2110827](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110827_(LS%20to%20SA2%20on%20PRUs).docx) [draft] Response LS on Positioning Reference Units (PRUs) for enhancing positioning performance Qualcomm Incorporated LS out To:SA2, RAN1 Cc:RAN3

[R2-2110934](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2110934%20(R17%20NR%20POS%20WI%20AI8117_PRU).doc) Discussion on supporting Positioning Reference Units InterDigital, Inc. discussion NR\_pos\_enh

[R2-2111109](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111109%20Discussion%20on%20how%20to%20manage%20PRU.doc) Discussion on how to manage PRU Xiaomi discussion

* [AT116-e][615][POS] PRUs (Qualcomm)

Scope: Discuss the handling of the PRU topic taking the related contributions into account, and determine a way forward.

Intended outcome: Report to positioning session in R2-2111364, and LS out if necessary

Deadline: Monday 2021-11-08 1000 UTC (report available)

Other

[R2-2109917](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2109917%20High%20accuracy.docx) On high accuracy aspects Ericsson discussion Rel-17

[R2-2111089](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202111%20-%20RAN2_116-e,%20Online\Extracts\R2-2111089%20Discussion%20on%20incoming%20LSs%20from%20RAN1%20on%20positioning.docx) Discussion on incoming LSs from RAN1 on positioning vivo discussion Rel-17 NR\_pos\_enh-Core