3GPP TSG-RAN WG2 Meeting #119-e R2-22xxxxx

Online, 17-26 August 2022

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.

* [AT119-e][400][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 2022-08-26 1000 UTC

* [AT119-e][405][POS] Rel-15/16 positioning stage 2 (CATT)

Scope: Evaluate the CRs in R2-2207108/R2-2207109 and check for agreeability.

Intended outcome: Agreed CRs

Deadline: Tuesday 2022-08-23 1200 UTC

* [AT119-e][406][POS] Rel-15/16 positioning RRC (Huawei)

Scope: Evaluate the CRs in R2-2207408/R2-2207561/R2-2207873/R2-2207874/R2-2207875/R2-2207876 and check for agreeability.

Intended outcome: Agreed CRs

Deadline: Tuesday 2022-08-23 1200 UTC

* [AT119-e][407][POS] Rel-15/16 LPP (Qualcomm)

Scope: Evaluate the CRs in R2-2207103/R2-2207104/R2-2207870/R2-2207871/R2-2207872/R2-2208069/R2-2208070/R2-2208071/R2-2208121/R2-2208123 and check for agreeability (discussion document in R2-2208119 can be taken into account).

Intended outcome: Agreed CRs

Deadline: Tuesday 2022-08-23 1200 UTC

* [AT119-e][408][POS] Rel-17 positioning stage 2 (Intel)

Scope: Check and update the rapporteur CR in R2-2207384 to take account of decisions of this meeting. Evaluate the proposals in the following tdocs:

* R2-2207110
* R2-2208491
* R2-2208521
* R2-2208415
* R2-2208419
* R2-2208494

Intended outcome: Agreeable CR

Deadline: Tuesday 2022-08-23 1200 UTC

* [AT119-e][409][POS] Rel-17 positioning capabilities (Intel)

Scope: Check and update the rapporteur CR in R2-2207385 to take account of decisions of this meeting. Evaluate the proposals in the following tdocs:

* R2-2208492

Intended outcome: Agreeable CR

Deadline: Tuesday 2022-08-23 1200 UTC

* [AT119-e][410][POS] Rel-17 positioning MAC (Huawei)

Scope: Check and update the rapporteur CR in R2-2207880 to take account of decisions of this meeting. Evaluate the proposals in the following tdocs:

* R2-2207886
* R2-2208125
* R2-2208204
* R2-2208300
* R2-2208512
* R2-2208686
* R2-2207883
* R2-2207012

Intended outcome: Agreeable CR

Deadline: Tuesday 2022-08-23 1200 UTC

* [AT119-e][411][POS] Rel-17 positioning RRC (Ericsson)

Scope: Check and update the rapporteur CR in R2-2208076 to take account of decisions of this meeting. Evaluate the proposals in the following tdocs:

* R2-2207411
* R2-2207881

Summary discussion document in R2-2208710 can be taken into account.

Intended outcome: Agreeable CR

Deadline: Tuesday 2022-08-23 1200 UTC

* [AT119-e][412][Relay] Rel-17 SRAP and PDCP (OPPO)

Scope: Check and update the rapporteur CR in R2-2207020 to take account of decisions of this meeting. Evaluate the proposals in the following tdocs:

* R2-2207453
* R2-2208361
* R2-2208487
* R2-2207516

Intended outcome: Agreeable CR to 38.351 and agreed CR to 38.323 (note: R2-2207516 may be agreed by email if it is found agreeable and no other PDCP CR is needed)

Deadline: Tuesday 2022-08-23 1200 UTC

* [AT119-e][413][Relay] Rel-17 relay MAC (Apple)

Scope: Check and update the rapporteur CR in R2-2207449 to take account of decisions of this meeting. Evaluate the proposals in the following tdocs:

* R2-2208156

Intended outcome: Agreeable CR

Deadline: Tuesday 2022-08-23 1200 UTC

* [AT119-e][414][Relay] Rel-17 relay RRC (Huawei)

Scope: Check and update the rapporteur CR in R2-2208484 to take account of decisions of this meeting. Evaluate the proposals discussed in R2-2208795 for merging into the CR.

Intended outcome: Agreeable CR

Deadline: Tuesday 2022-08-23 1200 UTC

* [AT119-e][415][Relay] Rel-17 relay stage 2 (MediaTek)

Scope: Evaluate the proposals in the following tdocs and merge into a rapporteur CR:

* R2-2207079
* R2-2207203
* R2-2207450
* R2-2207513
* R2-2208004
* R2-2208193
* R2-2208485
* R2-2207201

Intended outcome: Agreeable CR to 38.300 and endorsable TP to 37.985

Deadline: Tuesday 2022-08-23 1200 UTC

* [AT119-e][416][POS] Rel-17 positioning integrity (Swift)

Scope: Evaluate the proposals in the following tdocs:

* R2-2207736
* R2-2208395

Intended outcome: Agreed CRs for merge into LPP rapporteur CR; report in R2-2208793

Deadline: Tuesday 2022-08-23 1200 UTC

* [AT119-e][417][Relay] Communication and discovery terminology (OPPO)

Scope: Clarify the definitions of “NR sidelink communication” and “NR sidelink discovery” across 38.300, 38.321, and 38.331. Discussion in R2-2207021 can be used as a starting point.

Intended outcome: Report to CB session

Deadline: Tuesday 2022-08-23 1200 UTC

# 4 EUTRA Rel-16 and earlier

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

## 4.3 Positioning corrections Rel-16 and earlier

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

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

# 5 NR Rel-15 and Rel-16

Essential corrections only.

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

## 5.3 NR Positioning Support

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

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

(NR TEI16 Positioning)

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

### 5.3.1 General and Stage 2 corrections

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

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

* [AT119-e][405][POS] Rel-15/16 positioning stage 2 (CATT)

Scope: Evaluate the CRs in R2-2207108/R2-2207109 and check for agreeability.

Intended outcome: Agreed CRs

Deadline: Tuesday 2022-08-23 1200 UTC

[R2-2207108](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\38305_CR0101_(Rel-16)_R2-2207108.docx) Correction on the description of deferred MT-LR CATT CR Rel-16 38.305 16.7.0 0101 - F NR\_pos-Core

[R2-2207109](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\38305_CR0102_(Rel-17)_R2-2207109.docx) Correction on the description of deferred MT-LR CATT CR Rel-17 38.305 17.1.0 0102 - A NR\_pos-Core

### 5.3.2 RRC corrections

Including impact to 36.331, 38.331, and 38.306.

* [AT119-e][406][POS] Rel-15/16 positioning RRC (Huawei)

Scope: Evaluate the CRs in R2-2207408/R2-2207561/R2-2207873/R2-2207874/R2-2207875/R2-2207876 and check for agreeability.

Intended outcome: Agreed CRs

Deadline: Tuesday 2022-08-23 1200 UTC

[R2-2207408](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207408%20Change%20request%20about%20Periodicity%20in%20SRSp%20configuration.docx) Change request about Periodicity in SRSp configuration vivo CR Rel-16 38.331 16.9.0 3259 - D NR\_pos-Core

[R2-2207561](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207561%20Change%20request%20about%20Periodicity%20in%20SRSp%20configuration%20-%20R17.docx) Change request about Periodicity in SRSp configuration vivo CR Rel-17 38.331 17.1.0 3283 - A NR\_pos\_enh-Core

[R2-2207873](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207873%20Correction%20for%20SRS-PeriodicityAndOffset-R16.docx) Correction for SRS-PeriodicityAndOffset-R16 Huawei, HiSilicon CR Rel-16 38.331 16.9.0 3320 - F NR\_pos-Core

[R2-2207874](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207874%20Correction%20for%20SRS-PeriodicityAndOffset-R17.docx) Correction for SRS-PeriodicityAndOffset-R17 Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3321 - A NR\_pos-Core

[R2-2207875](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207875%20Correction%20for%20the%20capability%20of%20SRS-PeriodicityAndOffset-R16.docx) Correction for the capability of SRS-PeriodicityAndOffset-R16 Huawei, HiSilicon CR Rel-16 38.306 16.9.0 0780 - F NR\_pos-Core

[R2-2207876](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207876%20Correction%20for%20the%20capability%20of%20SRS-PeriodicityAndOffset-R17.docx) Correction for the capability of SRS-PeriodicityAndOffset-R17 Huawei, HiSilicon CR Rel-17 38.306 17.1.0 0781 - A NR\_pos-Core

### 5.3.3 LPP corrections

* [AT119-e][407][POS] Rel-15/16 LPP (Qualcomm)

Scope: Evaluate the CRs in R2-2207103/R2-2207104/R2-2207870/R2-2207871/R2-2207872/R2-2208069/R2-2208070/R2-2208071/R2-2208121/R2-2208123 and check for agreeability (discussion document in R2-2208119 can be taken into account).

Intended outcome: Agreed CRs

Deadline: Tuesday 2022-08-23 1200 UTC

[R2-2207103](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\37355_CR0355_(Rel-16)_R2-2207103.docx) Minor corrections on TS 37.355 CATT CR Rel-16 37.355 16.8.0 0355 - F NR\_pos-Core

[R2-2207104](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\37355_CR0356_(Rel-17)_R2-2207104.docx) Minor corrections on TS 37.355 CATT CR Rel-17 37.355 17.1.0 0356 - A NR\_pos-Core

[R2-2207870](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207870%20Correction%20to%20need%20code%20in%20posSIB_R17.docx) Correction to need code in posSIB\_R17 Huawei, HiSilicon CR Rel-17 37.355 17.1.0 0366 - A NR\_newRAT-Core

[R2-2207871](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207871%20Correction%20to%20need%20code%20in%20posSIB_R16.docx) Correction to need code in posSIB\_R16 Huawei, HiSilicon CR Rel-16 37.355 16.8.0 0367 - A NR\_newRAT-Core

[R2-2207872](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207872%20Correction%20to%20need%20code%20in%20posSIB_R15.docx) Correction to need code in posSIB\_R15 Huawei, HiSilicon CR Rel-15 37.355 15.3.0 0368 - F NR\_newRAT-Core

[R2-2208069](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208069%20AssociatedDLPRS.docx) Correction of TRP beam information field descriptions for UEB DL-AoD Ericsson discussion Rel-16 37.355

[R2-2208070](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208070%20catF.docx) Clarification on NR-DL-PRS-ResourcesCapability Ericsson CR Rel-16 37.355 16.8.0 0372 - F NR\_pos-Core

[R2-2208071](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208071%20CapA.docx) Clarification on NR-DL-PRS-ResourcesCapability Ericsson CR Rel-17 37.355 17.1.0 0373 - A NR\_pos\_enh-Core

[R2-2208119](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208119_(PRS%20Search%20Window).docx) Issues with DL-PRS Search Window Definitions Qualcomm Incorporated discussion

[R2-2208121](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208121_(Rel-16%2037355%20PRS%20Search%20Window).docx) Correction to DL-PRS Search Window calculation Qualcomm Incorporated CR Rel-16 37.355 16.8.0 0375 - F NR\_pos-Core

[R2-2208123](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208123_(Rel-17%2037355%20PRS%20Search%20Window).docx) Correction to DL-PRS Search Window calculation Qualcomm Incorporated CR Rel-17 37.355 17.1.0 0376 - A NR\_pos-Core

### 5.3.4 MAC corrections

# 6 NR Rel-17

## 6.7 NR Sidelink relay

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

WI has been declared 100% complete

Tdoc Limitation: 4 tdocs

### 6.7.1 Organizational

Incoming LSs, TS updates, rapporteur inputs. This AI is reserved for rapporteur and organizational inputs. For LSes that need action or have impact beyond taking into account by CR rapporteurs: One tdoc by contact company (one company) to address the LS and potential reply is considered Rapporteur Input and may be provided. Related documents and proposed responses from companies other than the contact company should be submitted to the corresponding technical agenda item.

Terminology alignment

[R2-2207021](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207021%20-%20Terminology%20alignment%20for%20Communication%20and%20Disocvery.docx) Terminology alignment for Communication and Disocvery OPPO discussion Rel-17 NR\_SL\_relay-Core

* [AT119-e][417][Relay] Communication and discovery terminology (OPPO)

Scope: Clarify the definitions of “NR sidelink communication” and “NR sidelink discovery” across 38.300, 38.321, and 38.331. Discussion in R2-2207021 can be used as a starting point.

Intended outcome: Report to CB session

Deadline: Tuesday 2022-08-23 1200 UTC

Rapporteur CRs

[R2-2207020](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\38351_CR0006_(Rel-17)_R2-2207020%20-%20Correction%20on%20SRAP%20for%20L2%20U2N%20Relay_V0.2.docx) Correction on SRAP for L2 U2N Relay OPPO CR Rel-17 38.351 17.1.0 0006 - F NR\_SL\_relay-Core

* [AT119-e][412][Relay] Rel-17 SRAP and PDCP (OPPO)

Scope: Check and update the rapporteur CR in R2-2207020 to take account of decisions of this meeting. Evaluate the proposals in the following tdocs:

* R2-2207453
* R2-2208361
* R2-2208487
* R2-2207516

Intended outcome: Agreeable CR to 38.351 and agreed CR to 38.323 (note: R2-2207516 may be agreed by email if it is found agreeable and no other PDCP CR is needed)

Deadline: Tuesday 2022-08-23 1200 UTC

[R2-2207449](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207449%20MAC%20rapporteur%20CR%20for%20Misc%20SL%20relay%20corrections%20.docx) Miscellaneous corrections for NR Sidelink Relay (rapporteur CR) Apple CR Rel-17 38.321 17.1.0 1318 - F NR\_SL\_relay-Core, NR\_SL\_enh-Core

* [AT119-e][413][Relay] Rel-17 relay MAC (Apple)

Scope: Check and update the rapporteur CR in R2-2207449 to take account of decisions of this meeting. Evaluate the proposals in the following tdocs:

* R2-2208156

Intended outcome: Agreeable CR

Deadline: Tuesday 2022-08-23 1200 UTC

R2-2208194 Miscellaneous corrections on 38.304 for SL relay Ericsson (Rapporteur) CR Rel-17 38.304 17.1.0 0273 - F NR\_SL\_relay-Core Late

[R2-2208484](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208484%20RRC%20corrections%20for%20sidelink%20relay.docx) RRC corrections for sidelink relay Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3427 - F NR\_SL\_relay-Core

* [AT119-e][414][Relay] Rel-17 relay RRC (Huawei)

Scope: Check and update the rapporteur CR in R2-2208484 to take account of decisions of this meeting. Evaluate the proposals discussed in R2-2208795 for merging into the CR.

Intended outcome: Agreeable CR

Deadline: Tuesday 2022-08-23 1200 UTC

### 6.7.2 Essential corrections

No documents should be submitted to 6.7.2. Please submit to 6.7.2.x.

#### 6.7.2.1 Stage 2 corrections

Including impact to 38.300.

* [AT119-e][415][Relay] Rel-17 relay stage 2 (MediaTek)

Scope: Evaluate the proposals in the following tdocs and merge into a rapporteur CR:

* R2-2207079
* R2-2207203
* R2-2207450
* R2-2207513
* R2-2208004
* R2-2208193
* R2-2208485
* R2-2207201

Intended outcome: Agreeable CR to 38.300 and endorsable TP to 37.985

Deadline: Tuesday 2022-08-23 1200 UTC

Stage 2 CRs (to be considered in email discussion [415])

[R2-2207079](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\38300_0496_R2-2207079-Correction%20on%20miscellaneous%20issues%20for%20NR%20sidelink%20relay_clean.docx) Correction on miscellaneous issues for NR sidelink relay in 38300 OPPO CR Rel-17 38.300 17.1.0 0496 - F NR\_SL\_relay-Core

[R2-2207203](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207203%20Corrections%20for%20path%20switch%20in%2038.300.docx) Corrections for path switch in 38.300 ZTE CR Rel-17 38.300 17.1.0 0502 - F NR\_SL\_relay-Core

[R2-2207450](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207450%20Stage%202%20CR%20for%20SL%20relay_v1.docx) Correction on user plane and control plan procedures for U2N relay in Stage 2 Apple CR Rel-17 38.300 17.1.0 0510 - F NR\_SL\_relay-Core

[R2-2207513](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\38300_CR0513_(Rel-17)_R2-2207513.docx) Corrections on Sidelink Relay CATT CR Rel-17 38.300 17.1.0 0513 - F NR\_SL\_relay-Core

[R2-2208004](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208004%20Draft%20CR38300-corrections.docx) Miscellaneous corrections on SL Relay specification Nokia, Nokia Shanghai Bell draftCR Rel-17 38.300 17.1.0 F NR\_SL\_relay-Core

[R2-2208193](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\38.300_CR0534(Rel-17)_R2-2208193-%20Miscellaneous%20corrections%20on%2038.300%20for%20SL%20relay.docx) Miscellaneous corrections on 38.300 for SL relay Ericsson CR Rel-17 38.300 17.1.0 0534 - F NR\_SL\_relay-Core

[R2-2208485](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208485%20Stage%202%20clarifications%20on%20sidelink%20relay.docx) Stage2 clarifications on sidelink relay Huawei, HiSilicon draftCR Rel-17 38.300 17.1.0 NR\_SL\_relay-Core

TP to 37.985 (to be considered in email discussion [415])

[R2-2207201](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207201%20draft%20TP%20to%20introduce%20Rel-17%20sidelink%20relay%20and%20discovery%20for%20TR%2037.985.docx) TP to introduce Rel-17 sidelink relay and discovery in TR 37.985 ZTE draftCR Rel-17 37.985 17.1.1 NR\_SL\_relay-Core

#### 6.7.2.2 Control plane corrections

Including connection management, SI delivery, paging, access control for remote UE, and service continuity.

AI summary

R2-2208795 [Pre119-e][403] Summary of relay control plane corrections (Huawei) Huawei, HiSilicon discussion Rel-17 NR\_SL\_relay-Core

Covered in summary

[R2-2207018](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207018%20-%20Discussion%20on%20left%20issues%20for%20CP.docx) Discussion on left issues for CP OPPO discussion Rel-17 NR\_SL\_relay-Core

[R2-2207019](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\38331_CR3207_(Rel-17)_R2-2207019%20-%20Correction%20for%20U2N%20Relay.docx) Correction for U2N Relay OPPO CR Rel-17 38.331 17.1.0 3207 - F NR\_SL\_relay-Core

[R2-2207176](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207176%2038.331%20Correction%20on%20relay%20UE%20mobility%20handling.docx) Correction on relay UE mobility handling Xiaomi CR Rel-17 38.331 17.1.0 3227 - F NR\_SL\_relay-Core

[R2-2207177](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207177%2038.331%20Correction%20on%20SI%20request.docx) Correction on SI request Xiaomi CR Rel-17 38.331 17.1.0 3228 - F NR\_SL\_relay-Core

[R2-2207178](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207178%2038.331%20Correction%20on%20SIB12%20forwarding.docx) Correction on SIB12 forwarding Xiaomi CR Rel-17 38.331 17.1.0 3229 - F NR\_SL\_relay-Core

[R2-2207179](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207179%2038.331%20Miscellaneous%20correction.docx) Miscellaneous correction Xiaomi CR Rel-17 38.331 17.1.0 3230 - F NR\_SL\_relay-Core

[R2-2207200](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\38331_CR3319_(Rel-17)_R2-2207200%20Correction%20on%20SUI%20message%20to%20differentiate%20V2X%20and%20ProSe%20service.docx) Correction on SUI message to differentiate V2X and ProSe service ZTE CR Rel-17 38.331 17.1.0 3319 - F NR\_SL\_relay-Core

[R2-2207202](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207202%20Correction%20on%20remote%20UEí) Correction on remote UE’s System Information acquisition ZTE CR Rel-17 38.331 17.1.0 3232 - F NR\_SL\_relay-Core

[R2-2207362](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207362.doc) Left issues for SUI message SHARP Corporation discussion NR\_SL\_relay-Core

[R2-2207451](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207451%20RRC%20CR%20for%20RLC%20configuration%20for%20remote%20UE%20in%20path%20switch%20.docx) Correction on PC5 RLC channel configuration for L2 U2N relay Apple CR Rel-17 38.331 17.1.0 3264 - F NR\_SL\_relay-Core

[R2-2207452](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207452%20RRC%20CR%20for%20remote%20UE%20SidelinkUEInformation.docx) Correction on SUI procedure for L2 remote UE Apple CR Rel-17 38.331 17.1.0 3265 - F NR\_SL\_relay-Core

[R2-2207514](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207514_Disussion%20on%20SRAP%20entity%20release_vf.docx) Disussion on SRAP entity release CATT discussion Rel-17 NR\_SL\_relay\_enh-Core

[R2-2207515](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\38331_CR3273_(Rel-17)_R2-2207515%2038331_Miscellaneous%20Corrections%20on%20Sidelink%20RRC%20procedures-vf.docx) Miscellaneous Corrections on Sidelink RRC procedures CATT CR Rel-17 38.331 17.1.0 3273 - F NR\_SL\_relay\_enh-Core

[R2-2207536](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207536%20Correction%20on%20RRC%20connection%20suspension%20of%20remote%20UE.doc) Correction on RRC connection suspension of remote UE Sharp discussion

[R2-2207651](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207651-%20CR3301%20Correction%20for%20notification%20message%20with%20re-establishment%20v1.0.docx) Correction for notification message with re-establishment Lenovo CR Rel-17 38.331 17.1.0 3301 - F NR\_SL\_relay-Core

[R2-2207763](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\38.331_CR3309_(Rel-17)_R2-2207763_Correction%20on%20measurement%20reporting%20procedure%20for%20L2%20U2N%20Relay.docx) Correction on measurement reporting procedure for L2 U2N Relay vivo CR Rel-17 38.331 17.1.0 3309 - F NR\_SL\_relay-Core

[R2-2207764](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\38.331_CR3310_(Rel-17)_R2-2207764_Miscellaneous%20corrections%20on%20L2%20U2N%20CP%20procedures.docx) Miscellaneous corrections on L2 U2N CP procedures vivo CR Rel-17 38.331 17.1.0 3310 - F NR\_SL\_relay-Core

[R2-2208195](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\38.331_CR3376(Rel-17)_R2-2208195-%20Clarification%20on%20capability%20filter%20for%20sidelink%20relay.docx) Clarification on capability filter for sidelink relay Ericsson CR Rel-17 38.331 17.1.0 3376 - F NR\_SL\_relay-Core

[R2-2208196](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\38.331_CR3377(Rel-17)_R2-2208196-%20Clarification%20on%20SRB3%20configuration%20for%20sidelink%20relay.docx) Clarification on SRB3 configuration for sidelink relay Ericsson CR Rel-17 38.331 17.1.0 3377 - F NR\_SL\_relay-Core

[R2-2208197](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\38.331_CR3378(Rel-17)_R2-2208197-%20Clarification%20on%20the%20prohibit%20timer%20for%20on-demand%20SIB%20for%20SL%20relay.docx) Clarification on the prohibit timer for on-demand SIB for SL relay Ericsson CR Rel-17 38.331 17.1.0 3378 - F NR\_SL\_relay-Core

[R2-2208215](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208215%20Clarifications%20on%20PC5%20UE%20capabilities.docx) Clarifications on UE PC5 capabilities for sidelink Relay Nokia, Nokia Shanghai Bell draftCR Rel-17 38.306 17.1.0 F NR\_SL\_relay-Core

[R2-2208255](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208255%20RRC%20CR3391%20SidelinkUEInformationNR%20for%20SL%20relay.docx) Correction on SidelinkUEInformationNR for SL relay Samsung CR Rel-17 38.331 17.1.0 3391 - F NR\_SL\_relay-Core

[R2-2208256](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208256%20RRC%20CR3392%20measurement%20report%20of%20L2%20U2N%20relay%20UE.docx) Correction on measurement report of L2 U2N relay UE Samsung CR Rel-17 38.331 17.1.0 3392 - F NR\_SL\_relay-Core

[R2-2208358](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208358%20Clarifications%20on%20RRC%20procedural%20text%20for%20L2%20U2N%20relay%20operation.docx) Clarifications on RRC procedural text for L2 U2N relay operation ASUSTeK CR Rel-17 38.331 17.1.0 3410 - F NR\_SL\_relay-Core

[R2-2208359](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208359%20Correction%20on%20PC5-RRC%20connection%20release.docx) Correction on PC5-RRC connection release ASUSTeK CR Rel-17 38.331 17.1.0 3411 - F NR\_SL\_relay-Core

[R2-2208360](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208360%20Clarification%20on%20radio%20resource%20release%20on%20L2%20U2N%20Remote%20UE.docx) Clarification on radio resource release on L2 U2N Remote UE ASUSTeK CR Rel-17 38.331 17.1.0 3412 - F NR\_SL\_relay-Core

[R2-2208478](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208478.docx) Correction on rlf-TimersAndConstants Google Inc. CR Rel-17 38.331 17.1.0 3425 - F NR\_SL\_relay-Core

[R2-2208486](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208486%20Clarification%20on%20L2%20Remote%20UE%20threshold%20conditions%20for%20service%20continuity.docx) Clarification on L2 Remote UE threshold conditions for service continuity Huawei, HiSilicon draftCR Rel-17 38.331 17.1.0 NR\_SL\_relay-Core

#### 6.7.2.3 User plane corrections

Including SRAP aspects and QoS.

SRAP (to be considered in email discussion [412])

[R2-2207453](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207453%2038.351%20CR%20for%20SRAP%20operations.docx) Correction on SRAP header handling in L2 Relay UE Apple CR Rel-17 38.351 17.1.0 0007 - F NR\_SL\_relay-Core

[R2-2208361](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208361%20SRAP%20data%20PDU%20discard%20examination.docx) SRAP data PDU discard examination ASUSTeK CR Rel-17 38.351 17.1.0 0008 - F NR\_SL\_relay-Core

[R2-2208487](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208487%20Discussion%20on%20SRAP%20entity%20handling.docx) Discussion on SRAP entity handling Huawei, HiSilicon discussion Rel-17 NR\_SL\_relay-Core

PDCP (to be considered in email discussion [412])

[R2-2207516](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\38323_CR0097_(Rel-17)_R2-2207516.docx) Correction on PDCP for L2 U2N Relay CATT CR Rel-17 38.323 17.1.0 0097 - F NR\_SL\_relay-Core

MAC (to be considered in email discussion [413])

[R2-2208156](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208156%20Draft%20CR38321%20-%20Correction%20to%20logical%20channel%20selection%20for%20DRX%20in%20sidelink%20Relay.docx) Correction to logical channel selection for DRX in sidelink Relay Nokia, Nokia Shanghai Bell draftCR Rel-17 38.321 17.1.0 NR\_SL\_relay-Core

#### 6.7.2.4 Discovery and re- selection

Including 5G ProSe Direct Discovery for the non-relaying case. Re-using LTE discovery and re/selection as baseline.

AI summary

R2-2208796 (Summary of AI 6.7.2.4) Lenovo discussion Rel-17 NR\_SL\_relay-Core

Covered in summary

[R2-2207080](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207080%20Discussion%20on%20MAC%20filtering%20for%20reception%20of%20discovery%20message.docx) Discussion on MAC filtering for reception of discovery message OPPO discussion Rel-17 NR\_SL\_relay-Core

[R2-2207654](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207654%20-%20CR3302%20Correction%20for%20relay%20reselection%20while%20T300%20is%20running%20v1.0.docx) Correction for relay reselection while T300 is running Lenovo CR Rel-17 38.331 17.1.0 3302 - F NR\_SL\_relay-Core

[R2-2207765](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207765%20On%20the%20problem%20for%20mode-1%20dedicated%20discovery%20TX%20pool.docx) On the problem for mode-1 dedicated discovery TX pool vivo discussion Rel-17 NR\_SL\_relay-Core

[R2-2207766](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207766%20%5bDraft%5d%20LS%20on%20mode-1%20dedicated%20discovery%20transmission%20pool.docx) [Draft] LS on mode-1 dedicated discovery transmission pool vivo LS out Rel-17 NR\_SL\_relay-Core To:RAN1

[R2-2207967](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207967%20Clarification%20of%20SD-RSRP%20and%20SL-RSRP%20in%20TS%2038.331.docx) Clarification of SD-RSRP and SL-RSRP in TS 38.331 NEC Corporation CR Rel-17 38.331 17.1.0 3338 - F NR\_SL\_relay-Core

[R2-2208228](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208228%20Support%20of%20SL%20CG%20for%20discovery%20message.docx) Support of SL CG for discovery message Huawei, HiSilicon discussion Rel-17 NR\_SL\_relay-Core

## 6.11 NR positioning enhancements

(NR\_pos\_enh-Core; leading WG: RAN1; REL-17; WID: RP-210903)

Tdoc Limitation: 6 tdocs

### 6.11.1 Organizational

Rapporteur input. Incoming LS etc. This AI is reserved for rapporteur and organizational inputs. For LSes that need action or have impact beyond taking into account by CR rapporteurs: One tdoc by contact company (one company) to address the LS and potential reply is considered Rapporteur Input and may be provided. Related documents and proposed responses from companies other than the contact company should be submitted to the corresponding technical agenda item.

Incoming LSs with RAN2 in Cc:

[R2-2206919](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2206919_R1-2205450.docx) Reply LS on lower Rx beam sweeping factor for latency improvement (R1-2205450; contact: Huawei) RAN1 LS in Rel-17 NR\_pos\_enh To:RAN4 Cc:RAN2

Incoming LSs with action “take into account”

[R2-2206914](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2206914_R1-2205382.docx) Reply LS on the UE/TRP TEG framework (R1-2205382; contact: CATT) RAN1 LS in Rel-17 NR\_pos\_enh-Core To:RAN4, RAN2, RAN3

[R2-2206916](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Docs\R2-2206916.zip) LS on updates of RRC parameters for Rel-17 positioning enhancements (R1-2205406; contact: CATT) RAN1 LS in Rel-17 NR\_pos\_enh-Core To:RAN2, RAN3 Cc:RAN4

[R2-2206927](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2206927_R1-2205619.docx) Reply LS on expected AoA and AoD parameters (R1-2205619; contact: Nokia) RAN1 LS in Rel-17 NR\_pos\_enh-Core To:RAN2 Cc:RAN3

[R2-2206945](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2206945_R4-2210601.docx) Further reply LS on condition for PRS measurement outside the MG (R4-2210601; contact: Huawei) RAN4 LS in Rel-17 NR\_pos\_enh-Core To:RAN1, RAN2

[R2-2206947](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2206947_R4-2210604.docx) LS on switching time for SRS transmission outside initial UL BWP in RRC\_INACTIVE (R4-2210604; contact: Huawei) RAN4 LS in Rel-17 NR\_pos\_enh-Core To:RAN1, RAN2

Incoming LS from RTCM

[R2-2206903](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2206903_Response%20LS%20from%20RTCM%20on%20GNSS%20integrity_2.docx) Response LS to RTCM SC134 on GNSS integrity (RTCM; contact: ESA) RTCM LS in Rel-17 NR\_pos\_enh-Core To:RAN2

LS in R2-2206946 and related documents (to be considered in summary of agenda item 6.11.2.6)

[R2-2206946](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2206946_R4-2210603.docx) LS on Tx TEG framework (R4-2210603; contact: CATT) RAN4 LS in Rel-17 NR\_pos\_enh-Core To:RAN1, RAN2, RAN3

[R2-2207099](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\37355_CR0352_(Rel-17)_R2-2207099.docx) Corrections on the RxTEG,TxTEG and RxTxTEG report in TS 37.355 CATT CR Rel-17 37.355 17.1.0 0352 - F NR\_pos\_enh-Core

[R2-2207100](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\38331_CR3217_(Rel-17)_R2-2207100.docx) Corrections on the UE TxTEG report in TS 38.331 CATT CR Rel-17 38.331 17.1.0 3217 - F NR\_pos\_enh-Core

Rapporteur CRs

[R2-2207384](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207384%20Mscellaneous%20corrections%20for%20TS38.305.docx) Mscellaneous corrections for TS38.305 Intel Corporation CR Rel-17 38.305 17.1.0 0105 - F NR\_pos\_enh-Core

* [AT119-e][408][POS] Rel-17 positioning stage 2 (Intel)

Scope: Check and update the rapporteur CR in R2-2207384 to take account of decisions of this meeting. Evaluate the proposals in the following tdocs:

* R2-2207110
* R2-2208491
* R2-2208521
* R2-2208415
* R2-2208419
* R2-2208494

Intended outcome: Agreeable CR

Deadline: Tuesday 2022-08-23 1200 UTC

[R2-2207385](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207385-Corrections%20on%20LPP%20capablities.docx) Corrections on LPP capabilies Intel Corporation CR Rel-17 37.355 17.1.0 0359 - F NR\_pos\_enh-Core

* [AT119-e][409][POS] Rel-17 positioning capabilities (Intel)

Scope: Check and update the rapporteur CR in R2-2207385 to take account of decisions of this meeting. Evaluate the proposals in the following tdocs:

* R2-2208492

Intended outcome: Agreeable CR

Deadline: Tuesday 2022-08-23 1200 UTC

[R2-2207880](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207880%20Editor's%20Correction%20for%20MAC%20spec%20for%20Positioning.docx) Editor's Correction for MAC spec for Positioning Huawei, HiSilicon CR Rel-17 38.321 17.1.0 1344 - F NR\_pos\_enh-Core

* [AT119-e][410][POS] Rel-17 positioning MAC (Huawei)

Scope: Check and update the rapporteur CR in R2-2207880 to take account of decisions of this meeting. Evaluate the proposals in the following tdocs:

* R2-2207886
* R2-2208125
* R2-2208204
* R2-2208300
* R2-2208512
* R2-2208686
* R2-2207883
* R2-2207012

Intended outcome: Agreeable CR

Deadline: Tuesday 2022-08-23 1200 UTC

[R2-2208076](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208076%20RRCCR.docx) Miscellaneous correction for Positioning Ericsson, Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.1.0 3353 - F NR\_pos\_enh-Core

R2-2208710 RRC Corrections for Positioning Ericsson discussion Rel-17 NR\_pos\_enh-Core Late

* [AT119-e][411][POS] Rel-17 positioning RRC (Ericsson)

Scope: Check and update the rapporteur CR in R2-2208076 to take account of decisions of this meeting. Evaluate the proposals in the following tdocs:

* R2-2207411
* R2-2207881

Summary discussion document in R2-2208710 can be taken into account.

Intended outcome: Agreeable CR

Deadline: Tuesday 2022-08-23 1200 UTC

### 6.11.2 Essential corrections

No documents should be submitted to 6.11.2. Please submit to 6.11.2.x.

FR2-2 support (discuss online)

[R2-2208298](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208298%20Positioning%20of%20UEs%20with%20use%20of%20higher%20SCS%20in%20FR2-2.docx) Discussion on positioning of UEs in FR2-2 Samsung discussion Rel-17 NR\_pos\_enh-Core

[R2-2208299](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208299%20draftCR_positioning%20with%20higher%20SCS%20in%20FR2-2.docx) Clarification on the use of SRS with 480 kHz, 960 kHz SCS in FR2-2 for positioning Samsung draftCR Rel-17 38.331 17.1.0 NR\_pos\_enh-Core, NR\_ext\_to\_71GHz

#### 6.11.2.1 Latency enhancements

Enhancements of signalling, and procedures for improving positioning latency of the Rel-16 NR positioning methods, for DL and DL+UL positioning methods.

AI summary

R2-2208792 (Summary of AI 6.11.2.1) Qualcomm discussion Rel-17 NR\_pos\_enh-Core

Covered in summary

[R2-2207101](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\37355_CR0353_(Rel-17)_R2-2207101.docx) Corrections on the latency enhancements in TS 37.355 CATT CR Rel-17 37.355 17.1.0 0353 - F NR\_pos\_enh-Core

[R2-2207579](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207579%20Correction%20on%20the%20request%20message%20of%20reduced%20PRS%20samples%20in%2037.355.docx) Correction on the request message of reduced PRS samples in 37.355 ZTE, Sanechips CR Rel-17 37.355 17.1.0 0362 - F NR\_pos\_enh-Core

[R2-2207580](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207580%20Correction%20on%20UE%20capability%20of%20reduced%20PRS%20samples%20in%20RRC_INACTIVE%20in%2037.355.docx) Correction on UE capability of reduced PRS samples in RRC\_INACTIVE in 37.355 ZTE, Sanechips CR Rel-17 37.355 17.1.0 0363 - F NR\_pos\_enh-Core

[R2-2207885](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207885%20Correction%20to%20the%20number%20of%20samples%20for%20PRS%20measurement%20in%20RRC_INACTIVE.docx) Correction to the number of samples for PRS measurement in RRC\_INACTIVE Huawei, HiSilicon CR Rel-17 37.355 17.1.0 0371 - F NR\_pos\_enh-Core

[R2-2208077](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208077%20LPPCR.docx) Correction of the IE for lower Rx beam sweeping factor than 8 for FR2 capability and request Ericsson CR Rel-17 37.355 17.1.0 0374 - F NR\_pos\_enh-Core

[R2-2207693](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207693%20Positioning%20during%20handover%20and%20re-establishment%20v2.0.docx) Positioning during handover and re-establishment Lenovo discussion Rel-17

[R2-2208124](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208124_(CR%2038.331%20Scheduling%20ID%20posMG).docx) Correction to missing Scheduling Request Configuration for Positioning Measurement Gap Activation/Deactivation Request MAC CE Qualcomm Incorporated CR Rel-17 38.331 17.1.0 3358 - F NR\_pos\_enh-Core

Stage 2 (to be considered in email discussion [408])

[R2-2207110](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\38305_CR0103_(Rel-17)_R2-2207110.docx) Corrections on TS38.305 CATT CR Rel-17 38.305 17.1.0 0103 - F NR\_pos\_enh-Core

[R2-2208491](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208491%20Change%20request%20about%20validity%20area%20in%2038.305.docx) Change request about validity area in 38.305 vivo draftCR Rel-17 38.305 17.1.0 D NR\_pos\_enh-Core

LPP capability (to be considered in email discussion [409])

[R2-2208492](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208492%20Change%20request%20about%20UE%20capability%20for%20PRS%20measurement%20within%20a%20PPW.docx) Change request about UE capability for PRS measurement within a PPW vivo draftCR Rel-17 37.355 17.1.0 F NR\_pos\_enh-Core

MAC (to be considered in email discussion [410])

[R2-2207886](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207886%20Cancellation%20of%20SR%20for%20posMG%20(de-)activation%20request.docx) Cancellation of SR for posMG (de-)activation request Huawei, HiSilicon discussion Rel-17 NR\_pos\_enh-Core

[R2-2208125](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208125_(CR%2038.321%20SR%20posMG).docx) Correction to Scheduling Request for Positioning Measurement Gap Activation/Deactivation Request Qualcomm Incorporated CR Rel-17 38.321 17.1.0 1371 - F NR\_pos\_enh-Core

[R2-2208204](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\38321_CRxxxx_(Rel-17)_R2-2208204%20Misc%20corrections%20to%20ePos.docx) Miscellaneous corrections to NR positioning enhancements Lenovo draftCR Rel-17 38.321 17.1.0 F NR\_pos\_enh-Core

[R2-2208300](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208300%20draftCR_cancellation%20of%20UL%20MAC%20CE%20for%20pre-MG.docx) Cancellation of UL MAC CE for MG activation/deactivation Samsung draftCR Rel-17 38.331 17.1.0 NR\_pos\_enh-Core

[R2-2208512](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208512.docx) Corrections for triggered Positioning MG Req MAC CE Samsung draftCR Rel-17 38.321 17.1.0 F NR\_pos\_enh-Core

[R2-2208686](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208686%20Correction%20on%20PPW%20for%20positioning%20enhancement.docx) Correction on PPW for positioning enhancement NEC draftCR Rel-17 38.321 17.1.0 F NR\_pos\_enh-Core

RRC (to be considered in email discussion [411])

[R2-2207411](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207411%20Change%20request%20about%20PPW%20configuration.docx) Change request about PPW configuration vivo, Ericsson CR Rel-17 38.331 17.1.0 3260 - F NR\_pos\_enh-Core

#### 6.11.2.2 RRC\_INACTIVE

Methods, measurements, signalling and procedures to support positioning for UEs in RRC\_ INACTIVE state, for UE-based and UE-assisted positioning solutions. UL and DL+UL NR positioning methods and gNB positioning measurements for UEs in RRC\_INACTIVE are treated at lower priority.

SRS configuration (discuss online)

[R2-2207112](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207112%20Discussion%20on%20left%20over%20issues%20of%20inactive%20positioning.docx) Discussion on left over issues of UL positioning in RRC\_Inactive CATT discussion Rel-17 NR\_pos\_enh-Core

LCS trigger (SA2 related; discuss online if time)

[R2-2208074](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208074%20RRCInactive%20.docx) on RRC Inactive Mode Positioning Ericsson discussion Rel-17

Draft reply to LS in SDT session (to be handled in SDT session)

[R2-2208072](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208072%20OnContainer.docx) On transferring SDT configuration and SRS positioning Inactive configuration from DU to CU Ericsson discussion Rel-17

RRC (to be considered in email discussion [411])

[R2-2207881](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207881%20Correction%20for%20inactivePosSRS-TAT%20upon%20transitioning%20to%20RRC_CONNECTED.docx) Correction for inactivePosSRS-TAT upon transitioning to RRC\_CONNECTED Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3322 - F NR\_pos\_enh-Core

MAC (to be considered in email discussion [410])

[R2-2207883](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207883%20Correction%20to%20TA-validation%20for%20inactive%20SRS%20transmission.docx) Correction to TA-validation for inactive SRS transmission Huawei, HiSilicon CR Rel-17 38.321 17.1.0 1345 - F NR\_pos\_enh-Core

Stage 2 (to be considered in email discussion [408])

[R2-2208521](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208521%20Corrections%20on%20activation%20and%20deactivation%20of%20SP-SRSp%20transmission%20in%20RRC%20INACTIVE.doc) Corrections on activation and deactivation of SP-SRSp transmission in RRC INACTIVE Xiaomi, Huawei, vivo CR Rel-17 38.305 17.1.0 0107 - F NR\_pos\_enh-Core

#### 6.11.2.3 On-demand PRS

Specify UE-initiated and LMF-initiated on-demand transmission and reception of DL PRS for DL and DL+UL positioning for UE-based and UE-assisted positioning solutions.

OD-PRS configuration (discuss online)

[R2-2208493](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208493%20Discussion%20on%20the%20format%20of%20on-demand%20PRS%20configuration.docx) Discussion on the format of on-demand PRS configuration vivo, ZTE, Ericsson, Huawei, Xiaomi discussion Rel-17 NR\_pos\_enh-Core

[R2-2207419](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207419%20Change%20request%20about%20QCL-Info%20in%20the%20on-demand%20PRS%20request.docx) Change request about QCL-Info in the on-demand PRS request vivo CR Rel-17 37.355 17.1.0 0360 - F NR\_pos\_enh-Core

MAC (to be considered in email discussion [410])

[R2-2207012](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207012_DraftCR_38321_Corrections%20for%20DL-PRS%20processing%20window%20activation.docx) Corrections for DL-PRS processing window activation Samsung Electronics Co., Ltd draftCR Rel-17 38.321 17.1.0 NR\_pos\_enh-Core

#### 6.11.2.4 GNSS positioning integrity

Signalling and procedures to support GNSS positioning integrity determination.

LPP (to be considered by email)

R2-2207363 Corrections on the integrity of A-GNSS in TS 37.355 CATT CR Rel-18 37.355 17.1.0 0358 - F NR\_pos\_enh-Core Withdrawn

[R2-2207736](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\37355_CR0365_(Rel-17)_R2-2207736.docx) Corrections on the integrity of A-GNSS in TS 37.355 CATT CR Rel-17 37.355 17.1.0 0365 - F NR\_pos\_enh-Core

[R2-2208395](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208395.docx) Correction on the GNSS Orbit and Clock Integrity Bounds in TS 37.355 Swift Navigation, ESA, Ericsson CR Rel-17 37.355 17.1.0 0377 - F NR\_pos\_enh-Core

* [AT119-e][416][POS] Rel-17 positioning integrity (Swift)

Scope: Evaluate the proposals in the following tdocs:

* R2-2207736
* R2-2208395

Intended outcome: Agreed CRs for merge into LPP rapporteur CR; report in R2-2208793

Deadline: Tuesday 2022-08-23 1200 UTC

Report of email discussion on LPP proposals

R2-2208793 (Email summary on LPP proposals in AI 6.11.2.4) Swift Navigation discussion Rel-17 NR\_pos\_enh-Core

Stage 2 (to be considered in email discussion [408])

[R2-2208415](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208415.docx) Correction on the mean orbit error projection in TS 38.305 Swift Navigation, ESA, Ericsson CR Rel-17 38.305 17.1.0 0106 - F NR\_pos\_enh-Core

[R2-2208419](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208419.docx) Correction on the mean orbit error projection in TS 36.305 Swift Navigation, ESA, Ericsson CR Rel-17 36.305 17.1.0 0110 - F NR\_pos\_enh-Core

UE-based integrity (discuss online)

[R2-2208075](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208075%20integrity.docx) Provisioning of missing integrity requirements Ericsson discussion Rel-17

#### 6.11.2.5 A-GNSS enhancements

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

#### 6.11.2.6 Accuracy enhancements

Input on the accuracy enhancement objectives led by RAN1.

AI summary

R2-2208794 (Summary of AI 6.11.2.6) CATT discussion Rel-17 NR\_pos\_enh-Core

TEG framework

[R2-2207087](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207087%2037.355%20CR%20for%20clarification%20of%20number%20of%20UE%20Rx%20TEGs.docx) 37.355 CR for clarification of number of UE Rx TEGs OPPO CR Rel-17 37.355 17.1.0 0350 - F NR\_pos\_enh-Core

[R2-2207088](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207088%2037.355%20CR%20for%20introduction%20of%20UE%20Rx%20TEG%20margin%20and%20Tx%20TEG%20margin.docx) 37.355 CR for introduction of UE Rx TEG error margin and Tx TEG error margin OPPO CR Rel-17 37.355 17.1.0 0351 - F NR\_pos\_enh-Core

[R2-2207102](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\37355_CR0354_(Rel-17)_R2-2207102.docx) Corrections on the accuracy enhancements in TS 37.355 CATT CR Rel-17 37.355 17.1.0 0354 - F NR\_pos\_enh-Core

[R2-2207578](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207578%20Correction%20on%20additional%20measurements%20in%2037.355.docx) Correction on additional measurements in 37.355 ZTE, Sanechips CR Rel-17 37.355 17.1.0 0361 - F NR\_pos\_enh-Core

[R2-2207581](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207581%20Correction%20on%20UE%20Rx%20Tx%20RxTx%20TEG%20and%20TRP%20Tx%20TEG%20timing%20error%20margin%20in%2037.355.docx) Correction on UE Rx Tx RxTx TEG and TRP Tx TEG timing error margin in 37.355 ZTE, Sanechips CR Rel-17 37.355 17.1.0 0364 - B NR\_pos\_enh-Core

[R2-2207882](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207882%20Correction%20to%20measurment%20with%20mutliple%20TEGs.docx) Correction to measurment with mutliple TEGs Huawei, HiSilicon, VIVO CR Rel-17 37.355 17.1.0 0369 - F NR\_pos\_enh-Core

[R2-2207582](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207582%20Correction%20on%20UE%20Tx%20TEG%20timing%20error%20margin%20in%2038.331.docx) Correction on UE Tx TEG timing error margin in 38.331 ZTE, Sanechips CR Rel-17 38.331 17.1.0 3286 - B NR\_pos\_enh-Core

[R2-2207583](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207583%20Discussion%20on%20the%20framework%20of%20TEG%20timing%20error%20margin.docx) Discussion on the framework of TEG timing error margin ZTE, Sanechips discussion Rel-17 NR\_pos\_enh-Core

[R2-2208073](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208073%20TEG.docx) On Mitigation of UE/TRP Rx/Tx timing delays Ericsson discussion Rel-17

Measurement report

[R2-2207884](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207884%20Correction%20to%20DL-AoD%20measurement%20report.docx) Correction to DL-AoD measurement report Huawei, HiSilicon CR Rel-17 37.355 17.1.0 0370 - F NR\_pos\_enh-Core

Stage 2 (to be considered in email discussion [408])

[R2-2208494](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208494%20Change%20request%20about%20description%20of%20RSPP%20and%20RSRPP%20in%2038.305.docx) Change request about description of RSPP and RSRPP in 38.305 vivo draftCR Rel-17 38.305 17.1.0 D NR\_pos\_enh-Core

## 6.21 TEI17

### 6.21.2 Corrections

Corrections CRs (Correction to TEI or TEI + other WI code) or detailed modifications to agreed proposals

[R2-2208483](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208483%20Clarification%20on%20NR%20sidelink%20relay%20related%20configuration.docx) Clarification on NR sidelink relay related configuration Huawei, HiSilicon CR Rel-17 36.331 17.1.0 4859 - F TEI17, NR\_SL\_relay-Core

# 8 Rel-18

## 8.2 Expanded and improved NR positioning

(FS\_NR\_pos\_enh2; leading WG: RAN1; REL-18; WID: RP-221814)

Time budget: 1.5 TU

Tdoc Limitation: 3 tdocs

### 8.2.1 Organizational

Including incoming LSs and rapporteur inputs.

Work plan

[R2-2207737](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207737%20Work%20Plan%20for%20Study%20Item%20on%20Expanded%20and%20Improved%20NR%20Positioning.docx) Work Plan for Study Item on Expanded and Improved NR Positioning CATT, Intel Corporation, Ericsson Work Plan Rel-18 FS\_NR\_pos\_enh2

Pre-discussion summary

[R2-2207105](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207105%20Summary%20of%20pre-discussion%20on%20Rel-18%20expanded%20and%20improved%20NR.docx) Summary of pre-discussion on Rel-18 expanded and improved NR positioning CATT discussion Rel-18 FS\_NR\_pos\_enh2

Rapporteur summary of RAN1 agreements

[R2-2207387](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207387_RAN1%20agreements%20on%20Expanded%20and%20improved%20NR%20positioning.docx) RAN1 agreements on Expanded and improved NR positioning Intel Corporation discussion Rel-18 FS\_NR\_pos\_enh2

### 8.2.2 Sidelink positioning

Study of positioning architecture and signalling procedures (e.g. configuration, measurement reporting, etc) to enable sidelink positioning covering both UE based and network based positioning. Considering relative positioning, ranging and absolute positioning.

[R2-2207081](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207081%20Discussion%20on%20sidelink%20positioning.docx) Discussion on sidelink positioning vivo discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2207090](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207090%20Discussion%20of%20sidelink%20positioning.docx) Discussion of sidelink positioning OPPO discussion Rel-17 FS\_NR\_pos\_enh2

[R2-2207106](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207106-SL%20positioning.doc) SL Positioning Architecture and Protocol Stack CATT discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2207229](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207229.docx) Discussion of sidelink positioning procedures Nokia Germany agenda

* Revised in R2-2208685

[R2-2208685](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208685.docx) Discussion of sidelink positioning procedures Nokia, Nokia Shanghai Bell discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2207286](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207286.docx) Principles for sidelink positioning MediaTek Inc. discussion Rel-18

[R2-2207388](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207388.docx) Support of sidelink positioning Intel Corporation discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2207435](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207435-sl-positioning-sl.docx) On Sidelink Positioning Architecture Apple discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2207486](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207486%20(R18%20NR%20POS%20SI%20A822_SLPos).doc) Discussion on Sidelink Positioning InterDigital, Inc. discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2207586](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207586%20Discussion%20on%20sidelink%20positioning.docx) Discussion on sidelink positioning ZTE, Sanechips discussion Rel-18 NR\_pos\_enh-Core

[R2-2207684](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207684%20Discussion%20on%20potential%20solutions%20for%20SL%20positioning.docx) Discussion on potential solutions for SL positioning Spreadtrum Communications discussion Rel-18

[R2-2207828](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207828_POS_SL.docx) Considerations on sidelink positioning Sony discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2207865](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207865_SLPos_Solutions_Lenovo.docx) On SL Positioning Architecture and Procedures Lenovo discussion Rel-18

[R2-2207868](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207868%20Discussion%20on%20sidelink%20positioning_final.docx) Discussion on sidelink positioning Huawei, HiSilicon discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2208080](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208080%20SL.docx) SL positioning Ericsson discussion Rel-18

[R2-2208126](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208126_(Sidelink%20Positioning).docx) Study of Sidelink Positioning Architecture, Signaling and Procedures Qualcomm Incorporated discussion

[R2-2208253](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208253_Protocol%20considerations%20for%20sidelink%20positioning_clean.docx) Protocol considerations for sidelink positioning Philips International B.V. discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2208301](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208301%20Discussion%20on%20functions%20of%20LMF%20in%20SL%20positioning.docx) Discussion on functions of LMF in SL positioning Samsung discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2208320](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208320%20Discussion%20on%20OOC%20SL%20.docx) Discussion on out-of-coverage sidelink positioning Samsung R&D Institute UK discussion

[R2-2208453](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208453%20Initial%20considerations%20on%20Sidelink%20positioning.doc) Initial considerations on Sidelink positioning CMCC discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2208582](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208582%20Discussion%20on%20SL%20positioning.doc) Discussion on SL positioning Xiaomi discussion Rel-18

### 8.2.3 RAT-dependent integrity

Study methodologies, procedures, signalling, etc for determination of positioning integrity for both UE-based and UE-assisted positioning. Focus on reuse of concepts and principles being developed for RAT-Independent GNSS positioning integrity, where possible. Identification of error sources may require input from RAN1.

[R2-2207082](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207082%20Discussion%20on%20RAT-dependent%20integrity.docx) Discussion on RAT-dependent integrity vivo discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2207107](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207107-Integrity.docx) Discussion on RAT dependent integrity CATT discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2207389](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207389%20_support%20of%20RAT%20dependent%20integrity.docx) Support of RAT dependent integrity Intel Corporation discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2207487](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207487%20(R18%20NR%20POS%20SI%20A823_Integrity).doc) Discussion on RAT-dependent Integrity InterDigital, Inc. discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2207585](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207585%20Discussion%20on%20RAT-dependent%20methods%20positioning%20integrity.docx) Discussion on RAT-dependent methods positioning integrity ZTE, Sanechips discussion Rel-18 NR\_pos\_enh-Core

[R2-2207685](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207685%20Discussion%20on%20solutions%20for%20integrity%20of%20RAT-dependent%20positioning%20techniques.docx) Discussion on solutions for integrity of RAT-dependent positioning techniques Spreadtrum Communications discussion Rel-18

[R2-2207702](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207702_Discussion%20on%20RAT-dependent%20Positioning%20%20integrity.doc) Discussion on RAT-dependent positioning integrity Lenovo discussion Rel-18

[R2-2207829](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207829_POS_Integrity.docx) Considerations on solution for integrity of RAT dependent positioning Sony discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2207869](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207869%20Discussion%20on%20RAT-dependent%20integrity_final.docx) Discussion on RAT-dependent integrity Huawei, HiSilicon discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2207911](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207911%20Discussion%20on%20RAT-dependent%20positioning%20integrity.doc) Discussion on RAT-dependent positioning integrity Xiaomi discussion

[R2-2208079](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208079%20Integrity.docx) RAT-dependent integrity Ericsson discussion Rel-18

[R2-2208127](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208127_(integrity).docx) Integrity of NR Positioning Technologies Qualcomm Incorporated discussion

[R2-2208318](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208318%20Discussion%20on%20integrity%20of%20RAT%20dependent%20positioning%20techniques%20.docx) Discussion on integrity of RAT dependent positioning techniques Samsung R&D Institute UK discussion

[R2-2208322](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208322%20RAT-dependent%20Positioning%20Integrity.docx) Discussion of RAT-dependent positioning integrity Nokia, Nokia Shanghai Bell discussion Rel-18 FS\_NR\_pos\_enh2

### 8.2.4 LPHAP

Study the requirements on LPHAP as developed by SA1 and evaluate whether existing RAN functionality can support these power consumption and positioning requirements. Based on the evaluation, and, if found beneficial, study potential enhancements to help address any limitations.

[R2-2207083](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207083%20Discussion%20on%20LPHAP.docx) Discussion on LPHAP vivo discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2207089](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207089%20consideration%20on%20LPHAP.docx) Consideration on LPHAP OPPO discussion Rel-17 FS\_NR\_pos\_enh2

[R2-2207111](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207111%20Discussion%20on%20LPHAP.DOCX) Discussion on LPHAP CATT discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2207390](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207390%20_support%20of%20LPHAP.docx) Support of LPHAP Intel Corporation discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2207436](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207436-LPHAP-v0.docx) On LPHAP Apple discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2207488](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207488%20(R18%20NR%20POS%20SI%20A824_LPHAP).doc) Discussion on LPHAP InterDigital, Inc. discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2207584](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207584%20Discussion%20on%20LPHAP.docx) Discussion on LPHAP ZTE, Sanechips discussion Rel-18 NR\_pos\_enh-Core

[R2-2207703](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207703_Discussion%20on%20low%20power%20high%20accuracy%20positioning.doc) Discussion on low power high accuracy positioning Lenovo discussion Rel-18

[R2-2207830](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207830_POS_LPHAP.docx) Considerations on solution for Low Power High Accuracy Positioning Sony discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2207867](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207867%20Discussion%20on%20the%20LPHAP_final.docx) Discussion on the LPHAP Huawei, HiSilicon discussion Rel-18 FS\_NR\_pos\_enh2 Revised

[R2-2207912](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207912%20Discussion%20on%20LPHA%20Positioning.doc) Discussion on LPHA positioning Xiaomi discussion

[R2-2208078](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208078%20LPHAP.docx) Discussion on Low Power High Accuracy Positioning Ericsson discussion Rel-18

[R2-2208128](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208128_(LPHAP).docx) Limitations of RRC\_INACTIVE positioning for LPHAP Qualcomm Incorporated discussion

[R2-2208180](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208180%20LPHAP.docx) Use case and area of focus for LPHAP study Nokia, Nokia Shanghai Bell discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2208454](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208454 Initial considerations on LPHAP.doc) Initial considerations on LPHAP CMCC discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2208626](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208626%20Discussion%20on%20the%20LPHAP_final.docx) Discussion on the LPHAP Huawei, HiSilicon, Deutsche Telekom discussion Rel-18 FS\_NR\_pos\_enh2 R2-2207867

## 8.9 Enhanced NR Sidelink Relay

(NR\_SL\_relay\_enh-Core; leading WG: RAN2; REL-18; WID: RP-221262)

Time budget: 1 TU

Tdoc Limitation: 3 tdocs

### 8.9.1 Organizational

Including incoming LSs and rapporteur inputs.

Work plan

[R2-2208345](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208345%20SL%20relay%20work%20plan.doc) Work plan for NR sidelink relay enhancements LG Electronics France Work Plan Rel-18 NR\_SL\_relay\_enh-Core

### 8.9.2 UE-to-UE relay

Single-hop Layer-2 and Layer-3 UE-to-UE relay for unicast. Focus for this meeting is on the common L2/L3 parts: relay discovery and (re)selection. Tdocs on other aspects of the objective may be submitted but will not be treated at this meeting.

[R2-2207077](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207077%20Discussion%20on%20NR%20sidelink%20UE%20to%20UE%20relay_clean.docx) Discussion on NR sidelink UE-to-UE relay OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2207126](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207126-Discovery%20and%20Relay%20selection%20for%20UE-to-UE%20relay.docx) Discovery and Relay (re-)selection for UE-to-UE relay Qualcomm Incorporated discussion NR\_SL\_relay\_enh-Core

[R2-2207182](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207182%20Discussion%20on%20U2U%20relay%20discovery%20and%20relay%20selection.docx) Discussion on U2U relay discovery and relay selection Xiaomi discussion

[R2-2207198](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207198%20Discussion%20on%20U2U%20relay%20discovery%20and%20(re)selection.docx) Discussion on U2U relay discovery and (re)selection ZTE discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2207239](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207239_Discussion%20on%20SL%20Relay%20Discovery%20and%20(Re-)Selection.docx) Discussion on Sidelink U2U Relay Discovery and (Re-)Selection Fraunhofer IIS, Fraunhofer HHI discussion Rel-18 NR\_SL\_relay\_enh, NR\_SL\_relay\_enh-Core

[R2-2207252](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207252%20-%20Design%20aspects%20of%20relay%20selection%20and%20reselection%20for%20U2U%20relay.docx) Design aspects of relay selection and reselection for U2U relay Ericsson discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2207278](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207278_U2U_Relaying_Discovery_Reselection_Intel.docx) Discovery and reselection with UE-to-UE relaying Intel Corporation discussion Rel-18 NR\_SL\_relay-Core

[R2-2207336](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207336%20Basic%20aspects%20for%20U2U%20Relay%20work.docx) Basic aspects for U2U Relay work Lenovo discussion NR\_SL\_relay\_enh-Core Late

[R2-2207457](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207457%20Discussion%20on%20relay%20discovery%20and%20relay%20selection%20for%20U2U%20relay.doc) Discussion on U2U Relay Discovery and Relay (Re)-selection Apple discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2207520](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207520_Disussion%20on%20U2U%20relay%20discovery%20and%20(re-)selection.docx) Discussion on U2U Relay Discovery and (Re)selection CATT discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2207644](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207644+Discussion%20on%20mechanisms%20to%20support%20UE-to-UE%20relay.doc) Discussion on mechanisms to support UE-to-UE relay China Telecom discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2207653](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207653-Consideration%20for%20UE-to-UE%20relay%20operation.docx) Consideration for UE-to-UE relay operation LG Electronics France discussion Rel-18

[R2-2207686](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207686.doc) Discussion on relay discovery and (re)selection for U2U relay Spreadtrum Communications discussion Rel-18

[R2-2207729](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207729%20Overall%20view%20on%20U2U%20sidelink%20relay_final.doc) Overall views on U2U sidelink relay Samsung R&D Institute UK discussion

[R2-2207838](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207838.doc) UE-to-UE relay cell reselection and Relay UE DRX Sony discussion Rel-18 NR\_SL\_relay\_enh

[R2-2207860](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207860_U2U_relay_scenario.doc) Scenarios that require UE-to-UE relay (re)selection Sharp discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2207861](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207861_U2U_relay_discussion.doc) UE-to-UE relay discovery and (re)selection Sharp discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2208005](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208005%20-%20L2%20and%20L3%20U2U%20relays.docx) Clarifications on the scope of SL based U2U Relay Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2208041](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208041_U2U_discovery.doc) Initial considerations for U2U relay discovery and (re)selection Kyocera discussion

[R2-2208083](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208083_Discussion%20on%20L2%20and%20L3%20U2U%20relay.docx) Discussion on L2 and L3 U2U relay vivo discussion

[R2-2208151](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208151%20(R18%20SL%20Relay%20WI_AI892%20RelayDiscoverySelection).doc) Discovery and Relay Selection for UE-to-UE Relays InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2208427](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208427%20Consideration%20on%20U2U%20relay.docx) Consideration on U2U relay CMCC discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2208489](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208489%20Discussion%20on%20UE-to-UE%20relay.doc) Discussion on UE-to-UE relay Huawei, HiSilicon discussion Rel-18 NR\_SL\_relay\_enh-Core

Contributions on L2-specific topics (will not be treated at this meeting).

[R2-2207170](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207170%20Connection%20management%20and%20procedures%20for%20L2%20UE-to-UE%20relay.docx) Connection management and procedures for L2 UE-to-UE relay MediaTek Inc. discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2208039](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208039_U2U_CP.docx) Initial considerations for U2U L2 relay CP operations Kyocera discussion

### 8.9.3 Service continuity enhancements for L2 UE-to-network relay

Inter-gNB direct/indirect path switching; intra-gNB indirect/indirect path switching; and inter-gNB indirect/indirect path switching, to be supported by reuse of solutions for the other scenarios.

[R2-2207078](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207078%20Discussion%20on%20further%20enhancement%20of%20service%20continuity_clean.docx) Discussion on further enhancement of U2N service continuity OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2207133](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207133-Service%20continuity%20for%20UE-to-Network%20relay-r1.docx) Service continuity for UE-to-Network relay Qualcomm Incorporated discussion NR\_SL\_relay\_enh-Core

[R2-2207169](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207169%20Service%20Continuity%20Enhancement%20for%20Sidelink%20Relay.docx) Service Continuity Enhancement for Sidelink Relay MediaTek Inc. discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2207181](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207181%20Discussion%20on%20service%20continuity%20enhancement.docx) Discussion on service continuity enhancement Xiaomi discussion

[R2-2207199](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207199%20Discussion%20on%20the%20service%20continuity%20enhancement%20for%20SL%20relay.doc) Discussion on Service continuity enhancement for U2N relay ZTE discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2207220](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207220_Service%20continuity%20for%20L2%20U2N%20relays.docx) Service Continuity Enhancements for Layer-2 UE-to-Network Relays Ericsson España S.A. discussion Rel-18

[R2-2207279](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207279_Service%20continuity%20enhancements%20for%20L2%20U2N%20relaying.docx) Service continuity enhancements for L2 U2N relaying Intel Corporation discussion Rel-18 NR\_SL\_relay-Core

[R2-2207420](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207420%20-%20Discussion%20on%20service%20continuity%20enhancement%20of%20L2%20U2N%20relay.doc) Discussion on Service continuity enhancement of L2 U2N relay Apple discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2207521](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207521%20Service%20Continuity%20Enhancements%20for%20L2%20U2N%20Relay.docx) Service Continuity Enhancements for L2 U2N Relay CATT discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2207642](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207642%20Discussion%20on%20service%20continuity%20enhancements%20for%20L2%20U2N%20relay.docx) Discussion on service continuity enhancements for L2 U2N relay China Telecom discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2207652](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207652%20Service%20continuity%20enhancements%20for%20L2%20U2N%20relay.docx) Service continuity enhancements for L2 U2N relay LG Electronics France discussion Rel-18

[R2-2207687](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207687%20Service%20continuity%20enhancements%20support%20for%20L2%20U2N%20relay.doc) Service continuity enhancements support for L2 U2N relay Spreadtrum Communications discussion Rel-18

[R2-2207700](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207700_Discussion%20on%20Service%20continuity%20in%20U2N%20relay%20case%20v1.1.docx) Discussion on Service continuity in U2N relay case Lenovo discussion Rel-18

[R2-2207839](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207839.doc) Service continuity enhancements for UE sidelink relay Sony discussion Rel-18 NR\_SL\_relay\_enh

[R2-2207963](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207963%20Considerations%20on%20Service%20Continuity%20Enhancement.docx) Considerations on Service Continuity Enhancement NEC Corporation discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2208006](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208006%20Draft%20L2%20U2N%20relay%20service%20continuity%20enhancement.docx) Discussion on service continuity enhancement for L2 U2N relay Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2208082](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208082_On%20service%20continuity%20enhancement%20for%20L2%20U2N%20relay.docx) On service continuity enhancement for L2 U2N relay vivo discussion

[R2-2208158](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208158%20U2N%20Relay%20UE%20operation%20Threshold%20Conditions%20-%20Impact%20of%20UE%20Mobility%20Final.doc) U2N Relay UE operation Threshold Conditions: Impact of UE Mobility Philips International B.V. discussion Rel-18 NR\_SL\_relay\_enh-Core R2-2109823

[R2-2208229](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208229%20Discussion%20on%20service%20continuity.docx) Discussion on Service Continuity Huawei, HiSilicon discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2208260](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208260%20Service%20continuity%20enhancement%20for%20L2%20U2N%20relay_r2.doc) Service continuity enhancement for L2 U2N relay Samsung discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2208428](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208428%20Service%20continuity%20for%20U2N%20relay.docx) Service continuity on U2N relay CMCC discussion Rel-18 NR\_SL\_relay\_enh-Core

### 8.9.4 Multi-path relaying

Study the benefit and potential solutions for multi-path support to enhance reliability and throughput. Includes the cases where a UE is connected to the same gNB using one direct path and one indirect path via 1) Layer-2 UE-to-Network relay, or 2) via another UE (where the UE-UE inter-connection is assumed to be ideal).

[R2-2207015](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207015%20-%20Discussion%20on%20multi-path%20Relay_V0.2.docx) Discussion on multi-path SL relay OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2207137](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207137-Initial%20discussion%20on%20multi-path%20operation%20for%20UE-to-Network%20relay-r2.docx) Initial discussion on multi-path operation for UE-to-Network relay Qualcomm Incorporated discussion NR\_SL\_relay\_enh-Core

[R2-2207180](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207180%20Discussion%20on%20multi-path.docx) Discussion on multi-path Xiaomi discussion

[R2-2207187](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207187%20Initial%20consideration%20on%20multi-path%20relaying.docx) Initial consideration on the multi-path relaying ZTE, Sanechips discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2207221](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207221_Multipath%20support%20with%20direct%20path%20and%20indirect%20path.docx) Multipath Support with Direct path and Indirect path Ericsson España S.A. discussion Rel-18

[R2-2207280](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207280_Discussion%20on%20Multi-path%20Relaying_Intel.docx) Discussion on Multi-path Relaying Intel Corporation discussion Rel-18 NR\_SL\_relay-Core

[R2-2207361](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207361%20Multipath%20support%20for%20remote%20UE%20v02.docx) Multipath support for remote UE MediaTek Beijing Inc. discussion Rel-18

[R2-2207458](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207458%20Discussion%20on%20multi-path%20support.doc) Discussion on multi-path support Apple discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2207522](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207522_Discussion%20on%20Multi-path.docx) Discussion on Multi-path CATT discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2207643](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207643%20Discussion%20on%20multi-path%20support%20to%20enhance%20reliability%20and%20throughput.docx) Discussion on multi-path support to enhance reliability and throughput China Telecom discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2207688](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207688%20Discussion%20on%20multi-path%20relaying.doc) Discussion on multi-path relaying Spreadtrum Communications discussion Rel-18

[R2-2207701](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207701.docx) Discussion on Multi-path relaying Lenovo discussion Rel-18

[R2-2207840](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207840.doc) Multi-path relaying discussion Sony discussion Rel-18 NR\_SL\_relay\_enh

[R2-2207847](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207847_SLRelay_Multipath_v1.doc) Discussion on multipath for sidelink relay enhancement Samsung discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2207862](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207862_multi-path_relay.doc) benefit of multi-path relay Sharp discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2207964](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207964%20Considerations%20on%20Multipath%20of%20Sidelink%20Relay.docx) Considerations on Multipath of Sidelink Relay NEC Corporation discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2208081](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208081_%20Multi-path%20UE%20aggregation%20on%20PC5%20and%20Ideal-link.docx) Multi-path UE aggregation on PC5 and Ideal-link vivo discussion

[R2-2208152](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208152%20(R18%20SL%20Relay%20WI_AI894%20MultipathArchitecture).doc) Scenarios, Use Cases, and Protocol Architecture for Multi-path InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2208153](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208153%20(R18%20SL%20Relay%20WI_AI894%20MultipathAspects).doc) Design Aspects for Multi-path InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2208154](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208154%20Considerations%20on%20reliability%20and%20throughput%20for%20multi-path.docx) Considerations on reliability and throughput for multi-path Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2208349](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208349%20Multi-path%20relaying%20for%20NR%20sidelink%20relay%20enhancements.doc) Multi-path relaying for NR sidelink relay enhancements LG Electronics France discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2208429](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208429%20Multi-path%20and%20UE%20aggregation.docx) Multi-path and UE aggregation CMCC discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2208488](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208488%20Discussion%20on%20Rel-18%20multi-path%20via%20SL%20relay%20and%20UE%20aggregation.docx) Discussion on Rel-18 multi-path via SL relay and UE aggregation Huawei, HiSilicon discussion Rel-18 NR\_SL\_relay\_enh-Core

## 8.15 R18 Other

Misc Impacts from Other RAN WGs and TSGs (incl MC Enhancements). LS ins for Rel-18 topics that has no RAN WI.

Time budget: 0.5 TU

Tdoc Limitation: -

[R2-2207167](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207167%20CR%20on%2038331%20for%20SFN-DFN%20offset%20and%20PosSIB%20request.docx) CR on 38331 for SFN-DFN offset and PosSIB request MediaTek Inc. CR Rel-17 38.331 17.1.0 3226 - B TEI18

[R2-2207168](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207168%20Positioning%20support%20for%20remote%20UEs.docx) Positioning support for remote UEs MediaTek Inc. discussion Rel-18 TEI18

[R2-2207287](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207287.docx) Positioning support for remote UEs MediaTek Inc., CATT discussion Rel-18 TEI18 Revised

* Revised in R2-2208314

[R2-2207288](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207288.docx) Downlink positioning support and posSIB request for L2 UE-to-network remote UE MediaTek Inc., CATT CR Rel-18 38.331 17.1.0 3245 - C TEI18 Revised

* Revised in R2-2208315

[R2-2207289](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207289.docx) Indication to LMF of operation as a L2 UE-to-network remote UE MediaTek Inc., CATT CR Rel-18 37.355 17.1.0 0357 - C TEI18 Revised

* Revised in R2-2208317

[R2-2207290](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2207290.docx) Positioning method support for L2 UE-to-network remote UE MediaTek Inc., CATT CR Rel-18 38.305 17.1.0 0104 - C TEI18 Revised

* Revised in R2-2208319

[R2-2208314](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208314.docx) Positioning support for remote UEs MediaTek Inc., CATT, Huawei, HiSilicon discussion Rel-18 TEI18 R2-2207287

[R2-2208315](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208315.docx) Downlink positioning support and posSIB request for L2 UE-to-network remote UE MediaTek Inc., CATT, Huawei, HiSilicon CR Rel-18 38.331 17.1.0 3245 1 C TEI18 R2-2207288

[R2-2208317](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208317.docx) Indication to LMF of operation as a L2 UE-to-network remote UE MediaTek Inc., CATT, Huawei, HiSilicon CR Rel-18 37.355 17.1.0 0357 1 C TEI18 R2-2207289

[R2-2208319](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202208%20-%20RAN2_119-e,%20Online\Extracts\R2-2208319.docx) Positioning method support for L2 UE-to-network remote UE MediaTek Inc., CATT, Huawei, HiSilicon CR Rel-18 38.305 17.1.0 0104 1 C TEI18 R2-2207290