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

Online, 10-17 October 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: Wednesday 2022-10-19 1000 UTC

* [AT119bis-e][408][POS] State change during positioning (Intel)

 Scope: Discuss the LS in R2-2209331 and related contributions (R2-2209611 / R2-2209610 / R2-2210119 / R2-2209437), conclude on whether the state transition needs to be supported, and draft a reply.

 Intended outcome: Report and approvable LS

 Deadline: Friday 2022-10-14 1000 UTC

* [AT119bis-e][409][POS] LS on TEG framework (CATT)

 Scope: Discuss the LS in R2-2209342 and related contributions in R2-2209432 and R2-2209433, and draft a reply.

 Intended outcome: Report and approvable LS

 Deadline: Friday 2022-10-14 1000 UTC

* [AT119bis-e][410][POS] Rel-17 positioning RRC CR (Ericsson)

 Scope: Check the rapporteur CR in R2-2210312 and update it with decisions of this meeting.

 Intended outcome: Agreeable CR

 Deadline: Friday 2022-10-14 1000 UTC

* [AT119bis-e][411][Relay] Relay cause value (vivo)

 Scope: Discuss the LS in R2-2209306 and related documents (R2-2209812 / R2-2209813 / R2-2209814), consider the proposed correction, and draft a reply.

 Intended outcome: Report, approvable LS, and agreeable CR if needed

 Deadline: Friday 2022-10-14 1000 UTC

* [AT119bis-e][412][Relay] Rel-17 relay RLC and PDCP CRs (Samsung)

 Scope: Check the rapporteur CRs in R2-2210011 and R2-2210012 and update them with decisions of this meeting.

 Intended outcome: Agreed in principle CRs (without CB if possible)

 Deadline: Friday 2022-10-14 1000 UTC

* [AT119bis-e][413][Relay] Rel-17 relay 38.304 CR (Ericsson)

 Scope: Check the rapporteur CR in R2-2210324 and update it with decisions of this meeting.

 Intended outcome: Agreeable CR

 Deadline: Friday 2022-10-14 1000 UTC

* [AT119bis-e][414][POS] Rel-17 relay RRC CR (Huawei)

 Scope: Check the rapporteur CR in R2-2210493, consider related proposals on RRC, and merge in decisions of this meeting. Checkpoint at Rel-17 CB second week; discussion can be extended for merging of the CR.

 Intended outcome: Agreeable CR

 Deadline: Friday 2022-10-14 1000 UTC (for initial checkpoint)

* [AT119bis-e][415][Relay] LS on authorization for UE-to-UE relay (LG)

 Scope: Discuss the LS in R2-2209357 and attempt to converge on a reply.

 Intended outcome: Approvable LS

 Deadline: Friday 2022-10-14 1000 UTC

# 6 NR Rel-17

## 6.7 NR Sidelink relay

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

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.

Cause value

[R2-2209306](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CDocs%5CR2-2209306.zip) LS on setting RRC establishment cause value when relay UE has its own service (C1-225453; contact: vivo) CT1 LS in Rel-17 5G\_ProSe To:RAN2 Cc:SA2

[R2-2209812](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209812_%5BDraft%5D%20LS%20reply%20on%20setting%20RRC%20establishment%20casue%20value%20when%20relay%20UE%20has%20its%20own%20service.docx) [Draft] LS reply on setting RRC establishment casue value when relay UE has its own service vivo LS out To:CT1 Cc:SA2

[R2-2209813](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209813_Discussion%20on%20LS%20from%20R2-2209206%28C1-225453%29.docx) Discussion on LS from R2-2209206(C1-225453) vivo discussion

[R2-2209814](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5C38331_CR3509_%28Rel-17%29_R2-2209814_Correction%20to%20the%20L2%20U2N%20Relay%20UE%C3%AD) Correction to the L2 U2N Relay UE’s cause value setting behaviour vivo CR Rel-17 38.331 17.2.0 3509 - F NR\_SL\_relay-Core

* [AT119bis-e][411][Relay] Relay cause value (vivo)

 Scope: Discuss the LS in R2-2209306 and related documents (R2-2209812 / R2-2209813 / R2-2209814), consider the proposed correction, and draft a reply.

 Intended outcome: Report, approvable LS, and agreeable CR if needed

 Deadline: Friday 2022-10-14 1000 UTC

Rapporteur CRs

[R2-2210011](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210011%2038.322%20draftCR%20Correction%20on%20RLC%20for%20SL%20Relay.docx) RLC correction for SL relay Samsung draftCR Rel-17 38.322 17.1.0 F NR\_SL\_relay-Core

[R2-2210012](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210012%2038.323%20draftCR%20Correction%20on%20PDCP%20for%20SL%20Relay.docx) PDCP correction for SL relay Samsung draftCR Rel-17 38.323 17.2.0 F NR\_SL\_relay-Core

* [AT119bis-e][412][Relay] Rel-17 relay RLC and PDCP CRs (Samsung)

 Scope: Check the rapporteur CRs in R2-2210011 and R2-2210012 and update them with decisions of this meeting.

 Intended outcome: Agreed in principle CRs (without CB if possible)

 Deadline: Friday 2022-10-14 1000 UTC

[R2-2210324](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5C38.304_CR0288%28Rel-17%29_R2-2210324-%20Misc%20correction%20on%2038.304%20for%20SL%20relay.docx) Misc correction in 38.304 for SL relay Ericsson (Rapporteur) CR Rel-17 38.304 17.2.0 0288 - F NR\_SL\_relay-Core

* [AT119bis-e][413][Relay] Rel-17 relay 38.304 CR (Ericsson)

 Scope: Check the rapporteur CR in R2-2210324 and update it with decisions of this meeting.

 Intended outcome: Agreeable CR

 Deadline: Friday 2022-10-14 1000 UTC

[R2-2210493](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5C38331_CR3549_%28Rel-17%29_R2-2210493%20Misc%20RRC%20CR%20for%20SL%20relay.docx) Misc RRC CR for SL relay Huawei, HiSilicon CR Rel-17 38.331 17.2.0 3549 - F NR\_SL\_relay-Core

* [AT119bis-e][414][POS] Rel-17 relay RRC CR (Huawei)

 Scope: Check the rapporteur CR in R2-2210493, consider related proposals on RRC, and merge in decisions of this meeting. Checkpoint at Rel-17 CB second week; discussion can be extended for merging of the CR.

 Intended outcome: Agreeable CR

 Deadline: Friday 2022-10-14 1000 UTC (for initial checkpoint)

### 6.7.2 Essential corrections

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

#### 6.7.2.1 Stage 2 corrections

Including impact to 38.300.

[R2-2209815](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5C37340_CR0348_%28Rel-17%29_R2-2209815_Correction%20on%20Sidelink%20based%20U2N%20Relay.docx) Correction on Sidelink based U2N Relay vivo CR Rel-17 37.340 17.2.0 0348 - F NR\_SL\_relay-Core

[R2-2210110](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5C38300_CR0569_%28Rel-17%29_R2-2210110%20Correction%20on%20L2%20U2N%20relay%20Protocol%20Architecture.docx) Corrections on SL relay ZTE, Sanechips CR Rel-17 38.300 17.2.0 0569 - F 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.

Summary document

R2-2210890 [Pre119bis-e][401] Summary of AI 6.7.2.2 on relay control plane (Huawei) Huawei, HiSilicon discussion Rel-17 NR\_SL\_relay-Core

The following documents will not be individually treated

[R2-2209377](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5C38331_draftCR_%28Rel-17%29_R2-2209377%20-%20Correction%20for%20U2N%20Relay.docx) Correction for U2N Relay OPPO draftCR Rel-17 38.331 17.2.0 F NR\_SL\_relay-Core

[R2-2209378](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209378%20-%20Discussion%20on%20left%20issues%20for%20CP_V2.docx) Discussion on left issues for CP OPPO discussion Rel-17 NR\_SL\_relay-Core

[R2-2209500](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5C38304_draftCR_%28Rel-17%29_R2-2209500_Miscellaneous%20corrections%20for%20NR%20sidelink%20Relay_cl.docx) Miscellaneous corrections for NR sidelink Relay in TS 38.304 OPPO draftCR Rel-17 38.304 17.2.0 NR\_SL\_relay-Core

[R2-2209545](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209545.doc) Correction on relay UE RRC connection establishment failure SHARP Corporation discussion NR\_SL\_relay-Core

[R2-2209775](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209775%20Discussion%20on%20control%20plan%20procedures%20for%20SL%20relay.doc) Discussion on remaining issues on CP procedure for SL Relay Apple discussion Rel-17 NR\_SL\_relay-Core

[R2-2209776](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209776%2038331_CR_R17_correction%20of%20UE%20handling%20of%20PC5%20RLC%20Channel%20configurations.docx) Correction on PC5 Relay RLC Channel configuration for L2 Relay UE and L2 Remote UE Apple CR Rel-17 38.331 17.2.0 3506 - F NR\_SL\_relay-Core

[R2-2209816](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209816_Discussion%20on%20NR%20SL%20communication%20transmission%20using%20exception%20pool%20during%20D2I%20path%20switch.docx) Discussion on NR SL communication transmission using exception pool during D2I path switch vivo discussion

[R2-2209817](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5C38331_CR3510_%28Rel-17%29_R2-2209817_Corrections%20to%20MAC%20and%20RLC%20handling%20for%20L2%20U2N%20Relay.docx) Corrections to MAC and RLC handling for L2 U2N Relay vivo CR Rel-17 38.331 17.2.0 3510 - F NR\_SL\_relay-Core

[R2-2209818](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5C38331_CR3511_%28Rel-17%29_R2-2209818_Correction%20to%20SL-RLC1.docx) Correction to SL-RLC1 vivo CR Rel-17 38.331 17.2.0 3511 - F NR\_SL\_relay-Core

[R2-2209847](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209847%20Clarification%20on%20SL%20DRX%20operation%20for%20U2N%20Remote%20UE.docx) Clarification on SL DRX operation for U2N Remote UE ASUSTeK CR Rel-17 38.331 17.2.0 3512 - F NR\_SL\_relay-Core

[R2-2209848](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209848%20Correction%20on%20RRC%20connection%20re-establishment%20procedure.docx) Correction on RRC connection re-establishment procedure ASUSTeK CR Rel-17 38.331 17.2.0 3513 - F NR\_SL\_relay-Core

[R2-2209860](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209860%20-%20Alignment%20between%20remote%20UE%20paging%20DRX%20and%20relay%20UE%20Uu%20DRX.docx) Alignment between remote UE paging DRX and relay UE Uu DRX Ericsson discussion Rel-17 NR\_SL\_relay-Core

[R2-2209861](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209861%20-%20Corrections%20to%2038321%20CR1417%20on%20alignment%20between%20remote%20UE%20paging%20DRX%20and%20relay%20UE%20Uu%20DRX.docx) Corrections to 38321 on alignment between remote UE paging DRX and relay UE Uu DRX Ericsson CR Rel-17 38.321 17.2.0 1417 - F NR\_SL\_relay-Core

[R2-2209879](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209879%20Correction%20on%20handover%20indication%20forwarding.docx) Correction on handover notification forwarding Xiaomi draftCR Rel-17 38.331 17.2.0 F NR\_SL\_relay-Core

[R2-2209880](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209880%20Miscelleneous%20correction%20on%2038.331.docx) Miscelleneous correction on 38.331 Xiaomi draftCR Rel-17 38.331 17.2.0 F NR\_SL\_relay-Core

[R2-2209885](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209885%20Correction%20on%20remote%20UE%20resource%20allocation.docx) Correction on remote UE's resource allocation Xiaomi draftCR Rel-17 38.331 17.2.0 F NR\_SL\_relay-Core

[R2-2209892](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5C38331_CR3515_%28Rel-17%29_R2-2209892%20-%20Calarification%20on%20emergency%20service%20support%20in%20Rel-17%20U2N%20relay.docx) Calarification on emergency service support in Rel-17 U2N relay CATT CR Rel-17 38.331 17.2.0 3515 - F NR\_SL\_relay-Core

[R2-2209902](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209902%20Discussion%20on%20SL%20synchronization%20for%20SL%20relay.doc) Discussion on SL synchronization for SL relay ZTE, Sanechips discussion Rel-17 NR\_SL\_relay-Core

[R2-2209903](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5C38331_draftCR_%28Rel-17%29_R2-2209903%20Correction%20on%20control%20plane%20for%20L2%20U2N%20relay-V2.docx) Correction on control plane for L2 U2N relay ZTE, Sanechips draftCR Rel-17 38.331 17.2.0 F NR\_SL\_relay-Core

[R2-2210170](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210170%20-%20CR3527%20Correction%20for%20receiving%20notification%20message%20during%20path%20switching%20v2.0.docx) Correction for receiving notification message during path switching Lenovo Information Technology CR Rel-17 38.331 17.2.0 3527 - F NR\_SL\_relay-Core

[R2-2210325](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5C38.331_CR3535%28Rel-17%29_R2-2210325-%20Clarification%20on%20UAC%20procedure%20for%20U2N%20Relay%20UE.docx) Clarification on UAC procedure for U2N Relay UE Ericsson CR Rel-17 38.331 17.2.0 3535 - F NR\_SL\_relay-Core

[R2-2210326](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5C38.331_CR3536%28Rel-17%29_R2-2210326-%20Clarification%20on%20setting%20the%20transaction%20identifier%20for%20sidelink.docx) Clarification on setting the transaction identifier for sidelink Ericsson CR Rel-17 38.331 17.2.0 3536 - F NR\_SL\_relay-Core

[R2-2210378](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210378%20Correction%20on%20SRAP%20handling%20for%20NR%20sidelink%20relay.docx) Correction on SRAP handling for NR sidelink relay Xiaomi CR Rel-17 38.331 17.2.0 3542 - F NR\_SL\_relay-Core

[R2-2210432](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210432%20Correction%20on%20derivation%20of%20serving%20Relay%20UE%20measurement%20results.doc) Correction on derivation of serving Relay UE measurement results Sharp discussion

[R2-2210433](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210433%20Correction%20on%20full%20configuration%20for%20remote%20UE.doc) Correction on full configuration for remote UE Sharp discussion

[R2-2210434](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210434%20Correction%20on%20RRC%20connection%20suspension%20of%20remote%20UE.doc) Correction on RRC connection suspension of remote UE Sharp discussion

[R2-2210494](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210494.docx) Remaining CP correction for sidelink relay Huawei, HiSilicon discussion Rel-17 NR\_SL\_relay-Core

[R2-2210495](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210495.docx) Discussion on support of QoE in L2 U2N relay Huawei, HiSilicon discussion Rel-17 NR\_SL\_relay-Core

[R2-2210496](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5C38331_CR3550_%28Rel-17%29_R2-2210496%20Clarification%20on%20no%20support%20of%20QoE%20for%20L2%20U2N%20Remote%20UE.docx) RRC CR for clarification on no support of QoE for L2 U2N Remote UE Huawei, HiSilicon CR Rel-17 38.331 17.2.0 3550 - F NR\_SL\_relay-Core

[R2-2210625](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210625-DraftCR_38304-SLRelayCorrections.docx) U2N relay related clarifications Nokia, Nokia Shanghai Bell draftCR Rel-17 38.304 17.2.0 F NR\_SL\_relay-Core

#### 6.7.2.3 User plane corrections

Including SRAP aspects and QoS.

Summary document

[R2-2210770](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210770%20-%20Summary%20of%20AI%206.7.2.3.docx) Summary of AI 6.7.2.3 OPPO discussion Rel-17 NR\_SL\_relay-Core

Proposal 1 R2 agree with the intention of change-4/5/7/8 of R2-2209904, change-1/2/3/57 of R2-2210043 and change in R2-2210673. Detailed wording can be further checked.

Proposal 2 R2 discuss on change-4/6 of R2-2210043, R2-2209893 and change-1/2/3/6 of R2-2209904.

The following documents will not be individually treated

[R2-2209893](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5C38351_CR0010_%28Rel-17%29_R2-2209893%20-%20Correction%20on%20SRAP%20for%20L2%20U2N%20Relay.docx) Correction on SRAP for L2 U2N Relay CATT CR Rel-17 38.351 17.2.0 0010 - F NR\_SL\_relay\_enh-Core

[R2-2209904](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5C38351_draftCR_%28Rel-17%29_R2-2209904%20Correction%20on%20SRAP%20for%20L2%20U2N%20relay.docx) Correction on SRAP for L2 U2N relay ZTE, Sanechips draftCR Rel-17 38.351 17.2.0 F NR\_SL\_relay-Core

[R2-2210043](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210043_CR_to_38351.docx) Miscellaneous corrections to 38.351 Samsung R&D Institute UK CR Rel-17 38.351 17.2.0 0011 - F NR\_SL\_relay-Core

[R2-2210673](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210673%20DraftCR_38351%20Miscellaneous%20SRAP%20changes.docx) DraftCR 38.351 Miscellaneous SRAP changes Nokia, Nokia Shanghai Bell draftCR Rel-17 38.351 17.2.0 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.

Summary document

[R2-2210777](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210777%20Summary%20of%20AI%206.7.2.4%20on%20discovery%20and%20reselection.docx) Summary of AI 6.7.2.4 on discovery and reselection CATT discussion Rel-17 NR\_SL\_relay-Core

[Easy decision]

Proposal 1: Merge R2-2209501 into MAC rapporteur’s discussion for further discussion.

Proposal 2: Merge R2-2209894 into RRC rapporteur’s discussion for further discussion.

Proposal 4: Merge R2-2210169 into RRC rapporteur’s discussion for further discussion.

[To be discussed]

Proposal 3a: RAN2 to discuss whether new assistance information similar to SL-TrafficPatternInfo should be introduced in UEAssistanceInformation message to assist gNB to configure SL CG type 1 for discovery.

Proposal 3b: If proposal 3a is agreed, RAN2 to discuss whether the assistance information can include Discovery message periodicity, Timing offset and the message size information. If yes, adopt TP in R2-2210111 as baseline.

Proposal 5a: RAN2 to discuss whether UE can use random selection on discovery/common pool, when the sensing result is not available, and random selection is also allowed by configuration.

Proposal 5b: If proposal 5a is agreed, RAN2 to discuss whether the procedure that UE can use random selection on discovery/common pool, when the sensing result is not available, and random selection is also allowed by configuration can be added. If yes, adopt TP in R2-2210633 as baseline.

The following documents will not be individually treated

[R2-2209501](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5C38321_draftCR_%28Rel-17%29_R2-2209501_Miscellaneous%20corrections%20for%20NR%20sidelink%20Relay_cl.docx) Miscellaneous corrections for NR sidelink Relay in TS 38.321 OPPO draftCR Rel-17 38.321 17.2.0 NR\_SL\_relay-Core

[R2-2209894](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5C38%20331_R2-2209894%20CR%233516%28Rel-17%29%20-%20Correction%20on%20relay%20%28re-%29selection%20for%20remote%20UE.docx) Correction on relay (re-)selection for remote UE CATT CR Rel-17 38.331 17.2.0 3516 - F NR\_SL\_relay\_enh-Core

[R2-2210111](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210111%20Support%20of%20SL%20CG%20for%20discovery%20message.docx) Support of SL CG for discovery message Huawei, HiSilicon, Nokia, Kyocera discussion Rel-17 NR\_SL\_relay-Core

[R2-2210169](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210169%20-%20CR3526%20Correction%20for%20relay%20selection%20for%20entering%20IDLE%20or%20INACTIVE%20v2.0.docx) Correction for relay selection for entering IDLE or INACTIVE Lenovo Information Technology CR Rel-17 38.331 17.2.0 3526 - F NR\_SL\_relay-Core

[R2-2210633](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210633_Disussion%20on%20resource%20allocation%20for%20sidelink%20discovery.docx) Discussion on Resource Allocation for Sidelink Discovery CATT discussion Rel-17 NR\_SL\_relay-Core

Withdrawn/Not available

R2-2209971 Correction on Sidelink discovery transmission CATT CR Rel-17 38.331 17.2.0 3520 - F NR\_SL\_relay-Core Withdrawn

## 6.11 NR positioning enhancements

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

Tdoc Limitation: 5 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.

LS with “take into account” action

[R2-2209332](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209332_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

LS on SRS-PosRRC-InactiveConfig and related documents

[R2-2209331](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209331_R3-225268.docx) LS on SRS-PosRRC-InactiveConfig configuration signalling (R3-225268; contact: Intel) RAN3 LS in Rel-17 NR\_pos\_enh-Core To:RAN2

[R2-2209611](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209611%20_Draft%20Reply%20LS%20on%20SRS-PosRRC-InactiveConfig%20configuration%20signalling.docx) Draft Reply LS on SRS-PosRRC-InactiveConfig configuration signalling Intel Corporation LS out Rel-17 NR\_pos\_enh-Core To:RAN3

[R2-2209610](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209610%20_RRC%20state%20transition-pos.docx) UE RRC state transition during the positioning session for RAN3 LS (R2-2209331) Intel Corporation discussion Rel-17 NR\_pos\_enh-Core

[R2-2210119](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210119%20Discussion%20on%20the%20LS%20on%20SRS-PosRRC-InactiveConfig%20configuration%20signalling.doc) Discussion on the LS on SRS-PosRRC-InactiveConfig configuration signalling Xiaomi discussion

[R2-2209437](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209437%20Discussion%20on%20LS%20on%20SRS-PosRRC-InactiveConfig%20configuration%20signalling.docx) Discussion on LS on SRS-PosRRC-InactiveConfig configuration signalling CATT discussion Rel-17 NR\_pos\_enh-Core

* [AT119bis-e][408][POS] State change during positioning (Intel)

 Scope: Discuss the LS in R2-2209331 and related contributions (R2-2209611 / R2-2209610 / R2-2210119 / R2-2209437), conclude on whether the state transition needs to be supported, and draft a reply.

 Intended outcome: Report and approvable LS

 Deadline: Friday 2022-10-14 1000 UTC

LS on TEG framework and related documents

[R2-2209342](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209342_R4-2214493.docx) Reply LS on the UE/TRP TEG framework (R4-2214493; contact: CATT) RAN4 LS in Rel-17 NR\_pos\_enh-Core To:RAN1, RAN2, RAN3

[R2-2209432](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209432%20Discussion%20on%20the%20Reply%20LS%20on%20the%20UETRP%20TEG%20framework%20from%20RAN4%20%28R4-2214493%29.docx) Discussion on the “Reply LS on the UE/TRP TEG framework” from RAN4 (R4-2214493) CATT discussion Rel-17 NR\_pos\_enh-Core

[R2-2209433](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209433%20%5BDraft%5D%20Reply%20LS%20on%20applicability%20of%20timing%20error%20margin%20of%20Rx%20TEG.doc) [DRAFT] Reply LS on applicability of timing error margin of Rx TEG CATT LS out Rel-17 NR\_pos\_enh-Core To:RAN4 Cc:RAN1, RAN3

* [AT119bis-e][409][POS] LS on TEG framework (CATT)

 Scope: Discuss the LS in R2-2209342 and related contributions in R2-2209432 and R2-2209433, and draft a reply.

 Intended outcome: Report and approvable LS

 Deadline: Friday 2022-10-14 1000 UTC

Rapporteur CR

[R2-2210312](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210312%20RRCPositioning.docx) Miscellaneous correction for Positioning Ericsson CR Rel-17 38.331 17.2.0 3534 - F NR\_pos\_enh-Core

* [AT119bis-e][410][POS] Rel-17 positioning RRC CR (Ericsson)

 Scope: Check the rapporteur CR in R2-2210312 and update it with decisions of this meeting.

 Intended outcome: Agreeable CR

 Deadline: Friday 2022-10-14 1000 UTC

### 6.11.2 Essential corrections

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

#### 6.11.2.1 Stage 2 corrections

Including impact to 36.305 and 38.305. Stage 2 corrections without functional impact will be treated at lower priority or not at all.

[R2-2210313](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210313%20UE%20TxTEG.docx) Missing Functional Impacts for UE TxTEG association Ericsson CR Rel-17 38.305 17.2.0 0108 - F NR\_pos\_enh-Core

[R2-2210314](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210314%20RRC%20Inactive.docx) Missing Functional Impacts for RRC Inactive Positioning Ericsson CR Rel-17 38.305 17.2.0 0109 - F NR\_pos\_enh-Core

[R2-2210315](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210315%20SRS%20Port.docx) Addition of Signaling of SRS Port Index when SRS resource for MIMO is used Ericsson CR Rel-17 38.305 17.2.0 0110 - F NR\_pos\_enh-Core

[R2-2210605](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210605%20Miscellaneous%20corrections%20to%20TS%2038.305.docx) Miscellaneous corrections to TS 38.305 vivo draftCR Rel-17 38.305 17.2.0 D NR\_pos\_enh-Core

#### 6.11.2.2 RRC corrections

Corrections to 38.331, except for UE capability issues which are handled under the UE capability agenda item.

[R2-2209429](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209429%20Correction%20to%20RRC%20spec%20for%20RRC_INACTIVE%20positioning.docx) Correction to RRC spec for RRC\_INACTIVE positioning Huawei, HiSilicon CR Rel-17 38.331 17.2.0 3485 - F NR\_pos\_enh-Core

[R2-2210480](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210480%20CR_cancellation%20of%20UL%20MAC%20CE%20for%20pre-MG.docx) Cancellation of UL MAC CE for MG activation/deactivation Samsung draftCR Rel-17 38.331 17.2.0 NR\_pos\_enh-Core

#### 6.11.2.3 LPP corrections

Corrections to 37.355.

Summary document

[R2-2210784](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210784_%28Summary%20of%20AI%206.11.2.3%20LPP%20Corrections%29_v1.docx) Summary of AI 6.11.2.3: LPP corrections Qualcomm Incorporated discussion Rel-17 NR\_pos\_enh-Core

[Proposed to agree with cleanup]

Proposal 1: The CR in 'R2-2209430, "Correction to UE capability for DL-AoD", Huawei, HiSilicon' is an essential correction. Agree a revision of the CR with the editorial issues fixed.

Proposal 3: The changes related to capability indices 23-3-3, 27-12, and 27-4-1 in 'R2-2209436, "Corrections on the LPP capabilities", CATT ' are essential corrections. Agree a revision of the CR with the change for 27-20 removed, and with the Note for 27-4-1 removed from DL-AoD.

Proposal 6: The CR in 'R2-2209683, "NR-DL-AoD-SignalMeasurementInformation corrections", Nokia, Nokia Shanghai Bell' is an essential correction. Revise the CR using the latest version of the specification.

Proposal 7: The CR in 'R2-2210199, "Correction on the maximum number of SRS and TxTEG association", ZTE, Sanechips' is an essential correction. Convert the CR into a backwards compatible change by clarifying in an ASN.1 comment that the applicable value is 64. Add the "Isolated Impact" statement to the CR cover sheet.

[Proposed non-essential]

Proposal 2: The CR in 'R2-2209435, "Change Request of missing UE capabilities", CATT ' is not an essential correction.

[To discuss—related to email discussion [AT119bis-e][409]]

Proposal 4a: RAN2 to discuss whether the "Applicability of timing error margin of Rx TEG" as included in the RAN4 LS R2-2209168 (R4-2214493) needs to be specified in LPP.

If yes, discuss whether the specification is applicable to both, NR-DL-TDOA-SignalMeasurementInformation and NR-Multi-RTT-SignalMeasurementInformation [2] or only applicable to NR-DL-TDOA-SignalMeasurementInformation [3].

Proposal 4b: Ask RAN4 whether the "Applicability of timing error margin of Rx TEG" as included in the RAN4 LS R2-2209168 (R4-2214493) needs to be specified in LPP.

[To discuss—other]

Proposal 5: RAN2 to discuss whether the additional text proposed in [4]:

"In this version of the specification, the field is mandatory present…"

for the field nr-UE-RxTEG-TimingErrorMargin in IE NR-DL-TDOA-SignalMeasurementInformation, and for the fields nr-UE-TxTEG-TimingErrorMargin and nr-UE-RxTxTEG-TimingErrorMargin in IE NR-Multi-RTT-SignalMeasurementInformation is an essential correction or not.

Proposal 8: RAN2 to discuss whether the following Proposal in 'R2-2210606, "Discussion on the provision of AL for achievable TIR calculation", vivo.' is an essential correction or not:

"Alert Limit (AL) should be provided to the UE to optionally obtain the achievable TIR."

The following documents will not be individually treated

[R2-2209430](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209430%20Correction%20to%20UE%20capability%20for%20DL-AoD.docx) Correction to UE capability for DL-AoD Huawei, HiSilicon CR Rel-17 37.355 17.2.0 0379 - F NR\_pos\_enh-Core

[R2-2209431](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209431%20Correction%20to%20TEG%20margin%20reporting.docx) Correction to TEG margin reporting Huawei, HiSilicon CR Rel-17 37.355 17.2.0 0380 - F NR\_pos\_enh-Core

[R2-2209434](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5C37355_CR0383_%28Rel-17%29_R2-2209434.docx) Corrections on the timing error margins CATT discussion Rel-17 37.355 NR\_pos\_enh-Core Late

[R2-2209435](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5C37355_CR0384_%28Rel-17%29_R2-2209435.docx) Change Request of missing UE capabilities CATT discussion Rel-17 37.355 NR\_pos\_enh-Core Late

[R2-2209436](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5C37355_CR0385_%28Rel-17%29_R2-2209436.docx) Corrections on the LPP capabilities CATT discussion Rel-17 37.355 NR\_pos\_enh-Core Late

[R2-2209683](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209683%20CR%20LPP%2037355%20DL-AoD%20v2.docx) NR-DL-AoD-SignalMeasurementInformation corrections Nokia, Nokia Shanghai Bell CR Rel-17 37.355 17.2.0 0381 - F NR\_pos\_enh-Core

[R2-2210199](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210199%20Correction%20on%20the%20maximum%20number%20of%20SRS%20and%20TxTEG%20association.docx) Correction on the maximum number of SRS and TxTEG association ZTE, Sanechips CR Rel-17 37.355 17.2.0 0382 - F NR\_pos\_enh-Core

[R2-2210606](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210606%20Discussion%20on%20the%20provision%20of%20AL%20for%20achievable%20TIR%20calculation.docx) Discussion on the provision of AL for achievable TIR calculation vivo discussion Rel-17 NR\_pos\_enh-Core

#### 6.11.2.4 MAC corrections

Corrections to 38.321.

[R2-2209427](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209427%20Correction%20to%20MAC%20spec%20for%20Positioning%20enhancement.docx) Correction to MAC spec for Positioning enhancement Huawei, HiSilicon CR Rel-17 38.321 17.2.0 1408 - F NR\_pos\_enh-Core

[R2-2210311](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210311%20MAC%20CR.docx) Positioning Measurement Gap Activation/Deactivation Request MAC CE based upon Scheduling Request Configuration Ericsson CR Rel-17 38.321 17.2.0 1429 - F NR\_pos\_enh-Core

[R2-2210607](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210607%20Clarification%20on%20the%20PPW%20index.docx) Clarification on the PPW index vivo draftCR Rel-17 38.321 17.2.0 D NR\_pos\_enh-Core

#### 6.11.2.5 UE capabilities

Including impact to 38.306 and any UE-capability-specific impact to 38.331.

[R2-2209428](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209428%20Correction%20on%20PRS%20processing%20window%20capability.docx) Correction on PRS processing window capability Huawei, HiSilicon CR Rel-17 38.306 17.2.0 0806 - F NR\_pos\_enh-Core

[R2-2210310](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210310%20capability.docx) Correcting PRS capability information reported to gNB Ericsson CR Rel-17 38.306 17.2.0 0815 - F NR\_pos\_enh-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: 2 TU

Tdoc Limitation: 4 tdocs

### 8.2.1 Organizational

Including incoming LSs and rapporteur inputs.

Workplan

[R2-2209588](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209588%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 FS\_NR\_pos\_enh2

Terminology alignment LS and related documents

[R2-2209351](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CDocs%5CR2-2209351.zip) LS on Terminology Alignment for Ranging/Sidelink Positioning (S2-2207129; contact: Xiaomi) SA2 LS in Rel-18 FS\_Ranging\_SL To:RAN1, RAN2, RAN3 Late

[R2-2210040](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210040%20Discussion%20on%20Terminology%20alignment%20with%20SA2.doc) Discussion on Terminology alignment with SA2 Xiaomi discussion Rel-18

[R2-2210041](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210041%20Draft%20Reply%20LS%20on%20Terminology%20Alignment%20for%20Ranging%20%26%20Sidelink%20Positioning_V2.docx) Draft Reply LS on Terminology Alignment for Ranging & Sidelink Positioning Xiaomi LS out Rel-18 To:SA2 Cc:RAN1, RAN3

[R2-2209402](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209402%20Draft%20Reply%20LS%20on%20Terminology%20Alignment%20for%20RangingSidelink%20Positioning.doc) Draft Reply LS on Terminology Alignment for Ranging/Sidelink Positioning CATT LS out Rel-18 FS\_NR\_pos\_enh2 To:SA2 Cc:RAN1, RAN3

### 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.

Email discussion report

[R2-2209607](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209607_Report_%5BPost119-e%5D%5B406%5D%5BPOS%5D%20Sidelink%20positioning%20protocol%20issues%20%28Intel%29.docx) Report of email discussion 406 on sidelink Intel Corporation discussion Rel-18 FS\_NR\_pos\_enh2 Late

Other documents

[R2-2210363](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210363_%28Sidelink%20Positioning%29.docx) Study of Sidelink Positioning Architecture, Signaling and Procedures Qualcomm Incorporated discussion

[R2-2210167](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210167%20Considerations%20on%20Sidelink%20positioning.doc) Considerations on Sidelink positioning CMCC discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2209400](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209400%20Discussion%20on%20SL%20positioning.docx) Discussion on SL Positioning CATT discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2209425](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209425%20Discussion%20on%20sidelink%20positioning_final.docx) Discussion on sidelink positioning Huawei, HiSilicon discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2209536](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209536.docx) SL-PRS configuration MediaTek Inc. discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2209560](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209560%20Discussion%20on%20sidelink%20positioning.docx) Discussion on sidelink positioning vivo discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2209606](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209606.docx) Support of sidelink positioning Intel Corporation discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2209671](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209671.docx) Protocol aspects of sidelink positioning Nokia Germany discussion Rel-18

[R2-2209693](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209693%20%28R18%20NR%20POS%20SI%20A822_SLPos%29.doc) Discussion on Sidelink Positioning InterDigital, Inc. discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2209729](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209729%20Further%20discussion%20on%20sidelink%20positioning.docx) Further discussion on sidelink positioning OPPO discussion Rel-17 FS\_NR\_pos\_enh2

[R2-2209767](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209767-SL-positioning-v0.docx) Sidelink Positioning Architecture and Protocol Stack Apple discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2209979](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209979%20Discussion%20on%20potential%20solutions%20for%20SL%20positioning.docx) Discussion on potential solutions for SL positioning Spreadtrum Communications discussion Rel-18

[R2-2210003](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210003_SLPos_Solutions.docx) On SL Positioning Protocol and Architecture Aspects Lenovo discussion Rel-18

[R2-2210042](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210042%20Discussion%20on%20SL%20positioning.doc) Discussion on SL positioning Xiaomi discussion Rel-18

[R2-2210085](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210085%20Discussion%20on%20sidelink%20positioning.docx) Discussion on sidelink positioning ZTE, Sanechips discussion Rel-18 NR\_pos\_enh-Core

[R2-2210115](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210115%20Discussion%20on%20Sidelink%20Positioning.docx) Discussion on Sidelink Positioning LG Electronics Deutschland discussion

[R2-2210210](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210210.docx) Considerations on sidelink positioning Sony discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2210316](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210316%20SL.docx) SL positioning Terminology and Protocol Aspects Ericsson discussion Rel-18

[R2-2210481](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210481%20Discussion%20on%20SL%20positioning.docx) Discussion on SL positioning Samsung discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2210546](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210546%20Discussion%20on%20OOC%20SL%20.docx) Discussion on out-of-coverage sidelink positioning Samsung R&D Institute UK discussion

### 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.

Summary document

[R2-2210892](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210892%20Summary%20of%20AI%208.2.3%20on%20RAT-dependent%20integrity%20%28Samsung%29.docx) [Pre119bis-e][405] Summary of AI 8.2.3 on RAT-dependent integrity (Samsung) Samsung R&D Institute UK discussion

The following documents will not be individually treated

[R2-2209403](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209403-Discussion%20on%20RAT%20dependent%20integrity.docx) Discussion on RAT dependent integrity CATT discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2209426](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209426%20Discussion%20on%20RAT-dependent%20integrity_final.docx) Discussion on RAT-dependent integrity Huawei, HiSilicon discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2209561](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209561%20discussion%20%20on%20RAT-dependent%20positioning%20integrity.docx) Discussion on RAT-dependent integrity vivo discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2209608](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209608%20_support%20of%20RAT%20dependent%20integrity.docx) Integrity for RAT dependent positioning methods Intel Corporation discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2209694](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209694%20%28R18%20NR%20POS%20SI%20A823_Integrity%29.doc) Discussion on RAT-dependent Integrity InterDigital, Inc. discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2209725](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209725%20Consideration%20on%20RAT-dependent%20integrity.docx) Consideration on RAT-dependent integrity OPPO discussion Rel-17 FS\_NR\_pos\_enh2

[R2-2209961](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209961%20Discussion%20on%20RAT-dependent%20integrity.doc) Discussion on RAT-dependent positioning integrity Lenovo discussion Rel-18

[R2-2209980](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209980%20Discussion%20on%20solutions%20for%20integrity%20of%20RAT-dependent%20positioning%20techniques-v1.0.docx) Discussion on solutions for integrity of RAT-dependent positioning techniques Spreadtrum Communications discussion Rel-18

[R2-2210084](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210084%20Discussion%20on%20RAT-dependent%20methods%20positioning%20integrity.docx) Discussion on RAT-dependent methods positioning integrity ZTE, Sanechips discussion Rel-18 NR\_pos\_enh-Core

[R2-2210116](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210116%20Discussion%20on%20RAT-dependent%20positioning%20integrity.doc) Discussion on RAT-dependent positioning integrity Xiaomi discussion

[R2-2210140](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210140.docx) Discussion on RAT-dependent integrity CMCC discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2210211](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210211.docx) Considerations on solution for integrity of RAT dependent positioning Sony discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2210317](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210317%20Integrity.docx) RAT-dependent integrity and TP for TR Ericsson discussion Rel-18

[R2-2210364](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210364_%28integrity%29.docx) Integrity of NR Positioning Technologies Qualcomm Incorporated discussion

[R2-2210547](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210547%20Discussion%20on%20integrity%20of%20RAT%20dependent%20positioning%20techniques%20.docx) Discussion on integrity of RAT dependent positioning techniques Samsung R&D Institute UK discussion

### 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.

Email discussion summary

[R2-2209405](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209405%20Report%20of%20%5BPost119-e%5D%5B407%5D%5BPOS%5D%20LPHAP%20upper%20layer%20enhancements%20%28CATT%29.docx) Report of [Post119-e][407][POS] LPHAP upper layer enhancements (CATT) CATT discussion Rel-18 FS\_NR\_pos\_enh2

Other documents

[R2-2209401](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209401%20Discussion%20on%20LPHAP.docx) Discussion on LPHAP CATT discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2209424](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209424%20Discussion%20on%20the%20LPHAP_final.docx) Discussion on the LPHAP Huawei, HiSilicon discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2209562](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209562%20Discussion%20on%20LPHAP.docx) Discussion on LPHAP vivo discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2209609](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209609%20_support%20of%20LPHAP.docx) Support of LPHAP Intel Corporation discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2209695](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209695%20%28R18%20NR%20POS%20SI%20A824_LPHAP%29.doc) Discussion on LPHAP InterDigital, Inc. discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2209727](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209727%20Further%20consideration%20on%20LPHAP.docx) Further consideration on LPHAP OPPO discussion Rel-17 FS\_NR\_pos\_enh2

[R2-2209768](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209768-LPHAP-v0.docx) Potential LPHAP enhancements Apple discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2209962](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209962%20Discussion%20on%20low%20power%20high%20accuracy%20positioning.doc) Discussion on low power high accuracy positioning Lenovo discussion Rel-18

[R2-2210083](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210083%20Discussion%20on%20LPHAP.docx) Discussion on LPHAP ZTE, Sanechips discussion Rel-18 NR\_pos\_enh-Core

[R2-2210117](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210117%20Discussion%20on%20LPHA%20Positioning.doc) Discussion on LPHA positioning Xiaomi discussion

[R2-2210168](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210168%C2%A0Considerations%C2%A0on%C2%A0LPHAP.doc) Considerations on LPHAP CMCC discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2210212](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210212.docx) Considerations on on solution for Low Power High Accuracy Positioning Sony discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2210318](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210318%20LPHAP.docx) LPHAP and Text Proposal for TR Ericsson discussion Rel-18

[R2-2210365](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210365_%28LPHAP%29.docx) Enhancements to Positioning in RRC\_INACTIVE State for LPHAP Qualcomm Incorporated discussion

[R2-2210482](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210482%20Discussion%20on%20LPHAP.docx) Discussion on LPHAP Samsung discussion Rel-18 FS\_NR\_pos\_enh2

### 8.2.5 RedCap positioning

Based on RAN1 evaluation, assess the necessity of enhancements, and, if needed, identify enhancements to help address limitations associated with RedCap UEs.

[R2-2209963](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209963%20Discussion%20on%20RedCap%20Positioning.doc) Discussion on RedCap positioning Lenovo discussion Rel-18

[R2-2209563](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209563%20Discussion%20on%20RedCap%20positioning.docx) Discussion on RedCap positioning vivo discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2209404](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209404-Discussion%20on%20RedCap%20Positioning.docx) Discussion on RedCap Positioning CATT discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2209643](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209643%20Discussion%20on%20REDCAP%20Positioning.docx) Discussion on RedCap Positioning Huawei, HiSilicon discussion

[R2-2209696](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209696%20%28R18%20NR%20POS%20SI%20A825_RedCap%29.docx) Discussion on Redcap Positioning InterDigital, Inc. discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2209756](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209756%20_RedCap%20positioning.docx) RedCap positioning Intel Corporation discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2210082](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210082%20Discussion%20on%20RedCap%20positioning.docx) Discussion on RedCap positioning ZTE, Sanechips discussion Rel-18 NR\_pos\_enh-Core

[R2-2210118](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210118%20Discussion%20on%20RedCap%20UE%20Positioning.doc) Discussion on RedCap UE positioning Xiaomi discussion

[R2-2210319](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210319%20RedCap.docx) Positioning for RedCap UEs Ericsson discussion Rel-18

## 8.9 Enhanced NR Sidelink Relay

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

Time budget: 1.5 TU

Tdoc Limitation: 4 tdocs

### 8.9.1 Organizational

Including incoming LSs and rapporteur inputs.

[R2-2209357](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209357_S2-2207518.docx) LS on ProSe Authorization information related to UE-to-UE Relay operation to NG-RAN (S2-2207518; contact: LGE) SA2 LS in Rel-18 FS\_5G\_ProSe\_Ph2, NR\_SL\_relay\_enh To:RAN2, RAN3

* [AT119bis-e][415][Relay] LS from SA2 on authorization for UE-to-UE relay (LG)

 Scope: Discuss the LS in R2-2209357 and attempt to converge on a reply.

 Intended outcome: Approvable LS

 Deadline: Friday 2022-10-14 1000 UTC

### 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.

Summary document

R2-2210893 Summary of AI 8.9.2 – UE to UE Relay (InterDigital) InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core

The following documents will not be individually treated

[R2-2209370](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209370_Disussion%20on%20U2U%20relay%20discovery%20and%20%28re-%29selection.docx) Discussion on U2U Relay Discovery and (Re)selection CATT discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2209499](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209499%20Discussion%20on%20NR%20sidelink%20UE%20to%20UE%20relay_cl.docx) Discussion on NR sidelink UE to UE relay OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2209518](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209518%20Relay%20discovery%20and%20%28re%29selection%20for%20UE-to-UE%20relay.docx) Relay discovery and (re)selection for UE-to-UE relay MediaTek Inc. discussion NR\_SL\_relay\_enh-Core

[R2-2209583](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209583_U2U_Relaying_Discovery_Reselection_Intel.docx) Discovery and reselection with UE-to-UE relaying Intel Corporation discussion Rel-18 NR\_SL\_relay-Core

[R2-2209619](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209619%20Discussion%20on%20U2U%20relay%20communication.docx) Discussion on U2U relay communication ZTE, Sanechips discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2209731](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209731%2BDiscussion%20on%20UE-to-UE%20relay.doc) Discussion on UE-to-UE relay China Telecom discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2209769](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209769%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

[R2-2209819](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209819_Discussion%20on%20the%20common%20L2%20L3%20parts%20for%20U2U%20relaying.docx) Discussion on the common L2/L3 parts for U2U relaying vivo discussion

[R2-2209839](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209839-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

[R2-2209922](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209922%20U2U%20relay%20discovery%20and%20relay%20selection.docx) Further considerations on U2U relay discovery and relay selection Beijing Xiaomi Mobile Software discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2209972](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209972.doc) Discussion on relay discovery and (re)selection for U2U relay Spreadtrum Communications discussion Rel-18

[R2-2210048](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210048%20U2U%20sidelink%20relay_revision_v2.doc) U2U sidelink relay Samsung R&D Institute UK discussion R2-2207729

[R2-2210136](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210136%20Discussion%20on%20U2U%20relay.docx) Discussion on U2U relay CMCC discussion Rel-18 NR\_SL\_relay\_enh

[R2-2210221](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210221.doc) UE-to-UE relay (re)selection Sony discussion Rel-18 NR\_SL\_relay\_enh

[R2-2210232](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210232%20Basic%20aspects%20for%20U2U%20Relay%20work.docx) Basic aspects for U2U Relay work Lenovo discussion NR\_SL\_relay\_enh-Core R2-2207336

[R2-2210247](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210247%20-%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

[R2-2210248](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210248%20-%20Discussion%20on%20U2U%20coverage%20scenarios%20and%20RRC%20states.docx) Discussion on U2U coverage scenarios and RRC states Ericsson, vivo, InterDigital Inc discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2210251](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210251_Discussion%20on%20SL%20Relay%20Discovery%20and%20%28Re-%29Selection%20enhanced.docx) Discussion on SL UE-to-UE Relay Discovery and (Re-)Selection Fraunhofer IIS, Fraunhofer HHI discussion Rel-18 NR\_SL\_relay\_enh

[R2-2210263](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210263%20%28R18%20SL%20Relay%20WI_AI892%20RelayDiscoverySelection%29.doc) Discovery and Relay Selection for UE-to-UE Relays InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2210276](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210276_U2U_discovery.doc) Initial considerations for U2U relay discovery and (re)selection Kyocera discussion

[R2-2210339](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210339%20On%20L2%20and%20L3%20U2U%20relays.docx) On L2 and L3 U2U relays Nokia, Nokia Shanghai Bell discussion NR\_SL\_relay\_enh-Core

[R2-2210475](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210475_U2U_relay_discussion.doc) UE-to-UE relay discovery and (re)selection Sharp discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2210498](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210498.doc) Discussion on UE-to-UE relay Huawei, HiSilicon discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2210580](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210580-Relay%20selection%20and%20connection%20establishment%20for%20UE-to-UE%20relay.docx) Relay selection and connection establishment LG Electronics France discussion Rel-18

L2 specific documents (not treated)

[R2-2209519](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209519%20Connection%20management%20and%20procedures%20for%20L2%20UE-to-UE%20relay.docx) Connection management and procedures for L2 UE-to-UE relay MediaTek Inc. discussion NR\_SL\_relay\_enh-Core

[R2-2210277](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210277_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.

Summary document

R2-2210782 Summary of AI 8.9.3, Service Continuity Enhancements Ericsson España S.A. discussion Rel-18

The following documents will not be individually treated

[R2-2209371](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209371%20Consideration%20on%20Service%20Continuity%20Enhancements%20for%20L2%20U2N%20Relay.docx) Consideration on Service Continuity Enhancements for L2 U2N Relay CATT discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2209460](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209460_Considerations%20on%20Service%20Continuity%20Enhancement.docx) Considerations on Service Continuity Enhancement NEC Corporation discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2209498](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209498%20Discussion%20on%20further%20enhancement%20of%20service%20continuity_cl.docx) Discussion on further enhancement of service continuity OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2209520](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209520%20Inter-gNB%20path%20switch%20to%20Relay%20UE%20in%20RRC_Idle%2C%20RRC_Inactive.docx) Inter-gNB path switch to Relay UE in RRC\_Idle, RRC\_Inactive MediaTek Inc. discussion NR\_SL\_relay\_enh-Core

[R2-2209584](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209584%20-%20Service%20continuity%20enhancements%20for%20L2%20U2N%20relaying.docx) Service continuity enhancements for L2 U2N relay Intel Corporation discussion Rel-18 NR\_SL\_relay-Core

[R2-2209642](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209642_Inter%20gNB%20aspects%20of%20Service%20continuity%20for%20U2N%20relays.docx) Inter-gNB Aspects of Service Continuity for Layer-2 UE-to-Network Relays Ericsson España S.A. discussion Rel-18

[R2-2209730](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209730_Service%20continuity%20enhancements%20for%20L2%20U2N%20relay.docx) Service continuity enhancements for L2 U2N relay China Telecom discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2209770](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209770%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

[R2-2209820](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209820%20On%20service%20continuity%20enhancement%20for%20L2%20U2N%20relay.docx) On service continuity enhancement for L2 U2N relay vivo discussion

[R2-2209841](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209841-Service%20continuity%20for%20UE-to-Network%20relay-r1.docx) Service continuity for UE-to-Network relay Qualcomm Incorporated discussion NR\_SL\_relay\_enh-Core

[R2-2209882](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209882%20Discussion%20on%20service%20continuity%20enhancement.docx) Discussion on service continuity enhancement Xiaomi discussion

[R2-2209901](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209901%20Service%20continuity%20enhancement%20for%20SL%20relay.doc) Service continuity enhancement for L2 U2N relay ZTE, Sanechips discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2209943](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209943%20Service%20continuity%20in%20U2N%20relay%20case%20v1.1.docx) Service continuity in L2 U2N relay case Lenovo discussion Rel-18

[R2-2209975](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209975%20Service%20continuity%20enhancements%20support%20for%20L2%20U2N%20relay.doc) Service continuity enhancements support for L2 U2N relay Spreadtrum Communications discussion Rel-18

[R2-2210014](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210014%20Service%20continuity%20enhancements%20for%20L2%20U2N%20relay.doc) Service continuity enhancements for L2 U2N relay Samsung discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2210101](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210101%20U2N%20relay%20inter-gNB%20path%20switching%20service%20continuity.docx) Discussion on service continuity enhancement for Inter-gNB path switching of L2 U2N relay Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_SL\_relay\_enh

[R2-2210102](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210102%20U2N%20relay%20service%20continuity%20relay%20UE%20Idle.docx) Discussion on service continuity enhancement for Inter-gNB path switching via relay UE in RRC\_IDLE/INACTIVE state Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_SL\_relay\_enh

[R2-2210112](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210112%20Discussion%20on%20service%20continuity.docx) Discussion on Service Continuity Huawei, HiSilicon discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2210137](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210137%20Service%20continuity%20on%20U2N%20relay.docx) Service continuity on U2N relay CMCC discussion Rel-18 NR\_SL\_relay\_enh

[R2-2210223](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210223.doc) Service continuity enhancements for UE sidelink relay Sony discussion Rel-18 NR\_SL\_relay\_enh

[R2-2210264](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210264%20%28R18%20SL%20Relay%20WI_AI893%20Service%20Continuity%29.doc) Open Issues on Service Continuity for Rel18 InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core Withdrawn

[R2-2210278](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210278_U2N_path_switch.doc) L2 U2N inter-gNB service continuity Kyocera discussion

[R2-2210442](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210442%20%28R18%20SL%20Relay%20WI_AI893%20Service%20Continuity%29.doc) Open Issues on Service Continuity for Rel18 InterDigital France R&D, SAS discussion

[R2-2210474](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210474-Service%20Continuity%20Enhancements%20for%20Layer-2%20U2N%20Relay.doc) Service Continuity Enhancements for Layer-2 U2N Relay Sharp discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2210578](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210578-Service%20continuity%20enhancements%20for%20L2%20U2N%20relay.docx) Service continuity enhancements for L2 U2N relay LG Electronics France discussion Rel-18

### 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).

Email discussion report

[R2-2210027](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210027%20Final%20Report%20of%20%5B408%5D%20MP.doc) Report of [Post119-e][408][Relay] Path operations in multi-path relaying LG Electronics France report Rel-18 NR\_SL\_relay\_enh-Core

Treat section 3 only (P11-P28)

[R2-2209375](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209375%20-%20Discussion%20on%20multi-path%20Relay_V2.docx) Discussion on multi-path Relay OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core

=> Revised in R2-2210780

[R2-2210780](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210780%20-%20Discussion%20on%20multi-path%20Relay_V3.docx) Discussion on multi-path Relay OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2209372](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209372_Discussion%20on%20Multi-path%20for%20Scenario1.docx) Discussion on Multi-path for Scenario 1 CATT discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2209373](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209373_Discussion%20on%20the%20Details%20of%20Scenario%202.docx) Discussion on the Details of Scenario 2 CATT discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2209461](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209461_Considerations%20on%20Multipath%20of%20Sidelink%20Relay.docx) Considerations on Multipath of Sidelink Relay NEC Corporation discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2209585](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209585_Discussion%20on%20Multi-path%20Relaying_Intel.docx) Discussion on Multi-path Relaying Intel Corporation discussion Rel-18 NR\_SL\_relay-Core

[R2-2209617](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209617-Further%20discussion%20on%20multi-path%20relaying.docx) Further discussion on the multi-path relaying ZTE, Sanechips discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2209618](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209618-Design%20consideration%20on%20the%20UE%20aggregation.docx) Design consideration on the UE aggregation ZTE, Sanechips discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2209681](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209681%20Multipath%20support%20for%20remote%20UE%20v01.docx) Multipath support for remote UE MediaTek Inc. discussion Rel-18

[R2-2209682](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209682_Multipath%20relaying%20for%20Scenario-1%20and%20Scenario-2.docx) Multipath Relaying for Scenario-1 and Scenario-2 Ericsson España S.A. discussion Rel-18

[R2-2209732](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209732%20Discussion%20on%20RLF%20handling%20for%20multi-path%20relaying.docx) Discussion on RLF handling for multi-path relaying China Telecom discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2209749](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209749%20Support%20of%20Multi-path%20relaying.docx) Support of Multi-path Relaying Nokia, Nokia Shanghai Bell discussion NR\_SL\_relay\_enh-Core

[R2-2209771](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209771%20Discussion%20on%20multi-path%20support.doc) Discussion on multi-path relaying support Apple discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2209821](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209821_%20Multi-path%20UE%20aggregation%20on%20PC5%20and%20Ideal-link.docx) Multi-path UE aggregation on PC5 and Ideal-link vivo discussion

[R2-2209840](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209840-Discussion%20on%20multi-path%20operation%20for%20UE-to-Network%20relay.docx) Discussion on multi-path relay for Scenario 1 and Scenario 2 Qualcomm Incorporated discussion NR\_SL\_relay\_enh-Perf

[R2-2209881](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209881%20Discussion%20on%20multipath.docx) Discussion on multi-path Xiaomi discussion

[R2-2209944](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209944.docx) Discussion on Multi-path relaying Lenovo discussion Rel-18

[R2-2209945](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209945%20Second%20path%20establishment%20for%20Multi-Path%20v1.1.docx) Second path establishment for Multi-Path Lenovo discussion Rel-18

[R2-2209976](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209976%20Discussion%20on%20multi-path%20relaying.doc) Discussion on multi-path relaying Spreadtrum Communications discussion Rel-18

[R2-2210031](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210031%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

[R2-2210063](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210063_SLRelay_PrimaryPath_v1.doc) Discussion on primary path for CP in sidelink relay enhancement Samsung discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2210064](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210064_SLRelay_Multipath_others_v1.doc) Discussion on key issues for multipath in sidelink relay enhancement Samsung discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2210138](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210138%20Primary%20path%20for%20CP%20in%20multi-path.docx) Primary path for CP in multi-path CMCC discussion Rel-18 NR\_SL\_relay\_enh

[R2-2210139](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210139%20Consideration%20on%20UE%20aggregation.docx) Consideration on UE aggregation CMCC discussion Rel-18 NR\_SL\_relay\_enh

[R2-2210224](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210224.doc) Multi-path relaying discussion Sony discussion Rel-18 NR\_SL\_relay\_enh

[R2-2210265](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210265%20%28R18%20SL%20Relay%20WI_AI894%20MultipathAspects%29.doc) Architecture Assumptions for Multi-path InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2210425](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210425%20%28R18%20SL%20Relay%20WI_AI894%20MultipathBearer.doc) SRB and DRB Configurations for Multi-path InterDigital France R&D, SAS discussion

[R2-2210476](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210476_MP_bearer.doc) discussion on multi-path bearer Sharp discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2210477](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210477_MP_resource_allocation.doc) resource allocation for multi-path relaying Sharp discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2210497](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210497.docx) Discussion on Rel-18 multi-path via SL relay and UE aggregation Huawei, HiSilicon discussion Rel-18 NR\_SL\_relay\_enh-Core

Withdrawn/Not available

[R2-2210266](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210266%20%28R18%20SL%20Relay%20WI_AI894%20MultipathBearer.doc) SRB and DRB Configurations for Multi-path InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core Withdrawn

### 8.9.5 DRX

Study the gains and, if needed, specify signalling between gNB and relay UE in sidelink mode 2 to assist the determination of the sidelink DRX configuration used for remote UE. This agenda item will be handled at lower priority.

[R2-2209376](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209376%20-%20Discussion%20on%20SL-DRX%20for%20Relay.docx) Discussion on SL-DRX for Relay OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2209774](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209774%20Discussion%20on%20SL-DRX%20for%20L2%20relay.doc) Discussion on SL DRX for L2 Relay Apple discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2209822](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209822_Discussion%20on%20SL%20DRX%20for%20L2%20U2N%20Remote%20UE.docx) Discussion on SL DRX for L2 U2N Remote UE vivo discussion

[R2-2209842](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209842-SL%20DRX%20for%20L2%20U2N%20relay.docx) SL DRX for L2 U2N relay Qualcomm Incorporated discussion NR\_SL\_relay\_enh-Core

[R2-2209883](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2209883%20Discussion%20on%20SL%20DRX%20in%20U2N%20relay.docx) Discussion on SL DRX in U2N relay Xiaomi discussion

[R2-2210222](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210222.doc) Discussions on Sidelink Relay DRX Sony discussion Rel-18 NR\_SL\_relay\_enh

[R2-2210499](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210499.doc) On sidelink DRX for L2 U2N relay Huawei, HiSilicon discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2210579](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210579-sidelink%20DRX%20for%20L2%20U2N%20relay.docx) SL DRX for L2 U2N relay LG Electronics France discussion Rel-18

## 8.18 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: -

[R2-2210320](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210320%20RelayPosSIBs.docx) Relaying of posSIBs Ericsson discussion Rel-18

[R2-2210367](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202210%20-%20RAN2_119bis-e%2C%20Online%5CExtracts%5CR2-2210367_%28SL%20Relay%29.docx) On Positioning Support for L2 UE-to-Network Remote UEs Qualcomm Incorporated discussion