3GPP TSG-RAN WG2 Meeting #122 R2-23xxxxx

Incheon, Korea, 22-26 May 2023

Source: Session Chair (MediaTek)

Title: Report from session on positioning and sidelink relay

# At-Meeting Email Discussions

This subsection is not an Agenda Item. It enumerates the email discussions allocated during the meeting. This subsection will be moved to an Annex in the final version of the session report.

* [AT122][400][POS][Relay] Organisational Nathan - Positioning/Relay (MediaTek)

 Scope: Organisational discussions and announcements, as needed during the meeting week.

 Intended outcome: Well-informed participants

 Deadline: Friday 2023-05-26 1700 KST

* [AT122][401][POS] Sidelink positioning summary proposals (Xiaomi)

 Scope: Discuss and gauge support on the proposals in R2-2306757, converge on easily agreeable parts, and identify discussion points for the online session on Wednesday 2023-05-24.

 Intended outcome: Summary to online session in R2-2306671

 Deadline: Tuesday 2023-05-23 2000 KST

* [AT122][402][Relay] Multi-path relay summary proposals (OPPO)

 Scope: Discuss and gauge support on the proposals in R2-2306556, converge on easily agreeable parts, and identify discussion points for the online session on Tuesday 2023-05-23.

 Intended outcome: Summary to online session in R2-2306672

 Deadline: Tuesday 2023-05-23 1100 KST

* [AT122][403][POS] 1-symbol PRS CR check (ZTE)

 Scope: Check the CRs in R2-2306079 / R2-2306080 / R2-2306081 / R2-2306082 / R2-2306083

 Intended outcome: CRs agreeable in principle

 Deadline: Wednesday 2023-05-24 2000 KST

* [AT122][404][POS] GNSS LOS/NLOS CR check (Vodafone)

 Scope: Check the CRs in R2-2306535 / R2-2306536 / R2-2306537, taking into account the exposition in R2-2306534.

 Intended outcome: CRs agreeable in principle

 Deadline: Wednesday 2023-05-24 2000 KST

* [AT122][405][POS] Yaw and APC in Rel-18 (Swift)

 Scope: Check the proposals in R2-2305265 and adapt the TPs into CRs if agreeable.

 Intended outcome: Report to CB session in R2-2306673 and potentially CRs agreeable in principle

 Deadline: Wednesday 2023-05-24 2000 KST

* [AT122][406][POS] Positioning for remote UEs CR check (CATT)

 Scope: Check the CRs in R2-2305852 / R2-2305854 / R2-2305857 / R2-2305859 in light of the exposition in R2-2305850 / R2-2305865, and evaluate the proposals in R2-2306019.

 Intended outcome: Report to CB session in R2-2306674 and CRs agreeable in principle

 Deadline: Wednesday 2023-05-24 2000 KST

* [AT122][407][POS] Rel-15/16 positioning CR check (Intel)

 Scope: Check the CRs in R2-2306459 / R2-2306460 / R2-2306451 (in light of the exposition in R2-2306409), R2-2306027 / R2-2306028, and R2-2306084 / R2-2306085.

 Intended outcome: Agreeable CRs

 Deadline: Thursday 2023-05-25 1100 KST

* [AT122][408][POS] Reply LS to CT4 on integrity parameters (Huawei)

 Scope: Draft a reply to R2-2304608 in line with the agreements reached online.

 Intended outcome: Approvable LS in R2-2306681

 Deadline: Wednesday 2023-05-24 2000 KST

* [AT122][409][POS] Update of LPP rapporteur CR (Qualcomm)

 Scope: Update R2-2305895 in line with the discussion of this meeting.

 Intended outcome: Agreeable CR in R2-2306676

 Deadline: Wednesday 2023-05-24 2000 KST

* [AT122][410][Relay] SRAP corrections (ZTE)

 Scope: Check the intention of the first change and the details of wording for the CR in R2-2305211.

 Intended outcome: Agreeable CR in R2-2306679

 Deadline: Wednesday 2023-05-24 2000 KST

# 4 EUTRA Rel-17 and earlier

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

## 4.4 Positioning corrections Rel-16 and earlier

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

This Agenda Item will be handled by email.

### 4.4.0 In-Principle-Agreed CRs

### 4.4.1 Corrections

# 5 NR Rel-15 and Rel-16

Essential corrections only.

Tdoc Limitation: 8 tdocs in total for all sub agenda items.

In case a correction need to be reflected in both NR TS and LTE TS, the corrections should be submitted under one single AI (so the NR and LTE correction can be treatee together), the sub-AIs below this

## 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)

This agenda item will be handled by email.

### 5.3.0 In-Principle-Agreed CRs

R2-2304789 Correction on SI update for posSIB-r16 Huawei, HiSilicon CR Rel-16 38.331 16.12.0 3974 1 F NR\_pos-Core R2-2302985

[R2-2304790](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304790%20Correction%20on%20SI%20update%20for%20posSIB-r17.docx) Correction on SI update for posSIB-r17 Huawei, HiSilicon CR Rel-17 38.331 17.4.0 3975 1 F NR\_pos-Core, NR\_redcap-Core R2-2302986

[R2-2305253](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305253_36305_%280113%29_R15_APC.docx) APC clarification for SSR positioning Swift Navigation, Ericsson CR Rel-15 36.305 15.5.0 0113 1 F LCS\_LTE\_acc\_enh-Core R2-2304308

[R2-2305254](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305254_36305_%280114%29_R16_APC.docx) APC clarification for SSR positioning Swift Navigation, Ericsson CR Rel-16 36.305 16.4.0 0114 1 A LCS\_LTE\_acc\_enh-Core R2-2304309

[R2-2305255](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305255_36305_%280115%29_R17_APC.docx) APC clarification for SSR positioning Swift Navigation, Ericsson CR Rel-17 36.305 17.2.0 0115 1 A LCS\_LTE\_acc\_enh-Core R2-2304310

[R2-2305256](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305256_38305_%280129%29_R15_APC.docx) APC clarification for SSR positioning Swift Navigation, Ericsson CR Rel-15 38.305 15.9.0 0129 1 F NR\_newRAT-Core R2-2304311

[R2-2305257](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305257_38305_%280130%29_R16_APC.docx) APC clarification for SSR positioning Swift Navigation, Ericsson CR Rel-16 38.305 16.8.0 0130 1 A NR\_newRAT-Core R2-2304312

[R2-2305258](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305258_38305_%280131%29_R17_APC.docx) APC clarification for SSR positioning Swift Navigation, Ericsson CR Rel-17 38.305 17.4.0 0131 1 A NR\_newRAT-Core R2-2304313

[R2-2305259](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305259_36305_%280116%29_R16_Yaw.docx) Zero Yaw clarification for SSR positioning Swift Navigation, Ericsson CR Rel-16 36.305 16.4.0 0116 1 F NR\_pos-Core R2-2304314

[R2-2305260](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305260_36305_%280117%29_R17_Yaw.docx) Zero Yaw clarification for SSR positioning Swift Navigation, Ericsson CR Rel-17 36.305 17.2.0 0117 1 A NR\_pos-Core R2-2304315

[R2-2305261](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305261_38305_%280132%29_R16_Yaw.docx) Zero Yaw clarification for SSR positioning Swift Navigation, Ericsson CR Rel-16 38.305 16.8.0 0132 1 F NR\_pos-Core R2-2304316

[R2-2305262](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305262_38305_%280133%29_R17_Yaw.docx) Zero Yaw clarification for SSR positioning Swift Navigation, Ericsson CR Rel-17 38.305 17.4.0 0133 1 A NR\_pos-Core R2-2304317

### 5.3.1 General and Stage 2 corrections

Including incoming LSs if any, 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.

### 5.3.2 RRC corrections

Including impact to 36.331, 38.331, and 38.306.

[R2-2306409](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306409%20Discussion%20on%20the%20misalignment%20issue%20in%20location%20measurement%20indication%20procedure.docx) Discussion on the misalignment issue in location measurement indication procedure ZTE Corporation discussion Rel-15 NR\_newRAT-Core

[R2-2306459](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306459%20Clarification%20on%20the%20misalignment%20issue%20in%20location%20measurement%20indication%20procedure.docx) Clarification on the misalignment issue in location measurement indication procedure ZTE Corporation CR Rel-15 38.331 15.21.0 4149 - F NR\_newRAT-Core

[R2-2306460](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306460%20Clarification%20on%20the%20misalignment%20issue%20in%20location%20measurement%20indication%20procedure.docx) Clarification on the misalignment issue in location measurement indication procedure ZTE Corporation CR Rel-16 38.331 16.12.0 4150 - A NR\_newRAT-Core

[R2-2306461](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306461%20Clarification%20on%20the%20misalignment%20issue%20in%20location%20measurement%20indication%20procedure.docx) Clarification on the misalignment issue in location measurement indication procedure ZTE Corporation CR Rel-17 38.331 17.4.0 4151 - A NR\_newRAT-Core

### 5.3.3 LPP corrections

[R2-2306027](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306027.docx) GNSS Troposperic Delay Correction field description Ericsson CR Rel-16 37.355 16.10.0 0451 - F NR\_pos-Core

[R2-2306028](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306028%20SSRgridA.docx) GNSS Troposperic Delay Correction field description Ericsson CR Rel-17 37.355 17.4.0 0452 - A NR\_pos-Core

### 5.3.4 MAC corrections

[R2-2306084](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306084%20Correction%20on%20DL%20MAC%20CE%20for%20SP%20Positioning%20SRS.docx) Correction on DL MAC CE for SP Positioning SRS ZTE Corporation CR Rel-16 38.321 16.11.0 1590 1 F NR\_pos-Core R2-2303501

[R2-2306085](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306085%20Correction%20on%20DL%20MAC%20CE%20for%20SP%20Positioning%20SRS.docx) Correction on DL MAC CE for SP Positioning SRS ZTE Corporation CR Rel-17 38.321 17.4.0 1591 1 A NR\_pos-Core R2-2303502

* [AT122][407][POS] Rel-15/16 positioning CR check (Intel)

 Scope: Check the CRs in R2-2306459 / R2-2306460 / R2-2306451 (in light of the exposition in R2-2306409), R2-2306027 / R2-2306028, and R2-2306084 / R2-2306085.

 Intended outcome: Agreeable CRs

 Deadline: Thursday 2023-05-25 1100 KST

# 6 NR Rel-17

## 6.3 NR Sidelink relay

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

Tdoc Limitation: 2 tdocs

### 6.3.0 In principle agreed CRs

[R2-2306196](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5C38323_CR0123r1_%28Rel-17%29_R2-2306196%20Clarification%20on%20the%20services%20expected%20from%20SRAP%20layer.docx) Clarification on the services expected from SRAP layer Huawei, HiSilicon CR Rel-17 38.323 17.4.0 0123 1 F NR\_SL\_relay-Core R2-2303490

* Agreed

[R2-2306197](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5C38322_CR0052r1_%28Rel-17%29_R2-2306197%20Clarification%20on%20the%20maximum%20Data%20field%20size%20for%20L2%20U2N%20relay.docx) Clarification on the maximum Data field size for L2 U2N relay Huawei, HiSilicon CR Rel-17 38.322 17.2.0 0052 1 F NR\_SL\_relay-Core R2-2303491

* Agreed

[R2-2306198](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5C38304_CR0333r3_%28Rel-17%29_R2-2306198%20Clarification%20on%20sidelink%20communication%20resource%20configuration%20used%20by%20OoC%20L2%20Remote%20UE.docx) Clarification on sidelink communication resource configuration used by OoC L2 Remote UE Huawei, HiSilicon CR Rel-17 38.304 17.4.0 0333 3 F NR\_SL\_relay-Core R2-2304508

[R2-2306199](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5C38331_CR4064r1_%28Rel-17%29_R2-2306199%20Miscellaneous%20corrections%20for%20SL%20relay.docx) Miscellaneous corrections for SL relay Huawei, HiSilicon, CATT, ZTE Corporation, Sanechips, vivo, Apple, Nokia, Nokia Shanghai Bell, Philips International B.V. CR Rel-17 38.331 17.4.0 4064 1 F NR\_SL\_relay-Core R2-2304466

### 6.3.1 Control plane and Stage-2 corrections

A single CR with miscellaneous corrections is encouraged. Small editorial corrections should be sent directly to the CR rapporteur. Larger open issues can be discussed with contributions (limited time).

Agenda item summary

R2-2306751 [Pre122][406][Relay] Summary of AI 6.3.1 on Rel-17 relay control plane (Huawei) Huawei, HiSilicon discussion Rel-18 NR\_SL\_relay\_enh-Core

The following documents will not be individually treated

[R2-2305058](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305058%2038300_Correction_for_NR_sidelink_relay_v1.docx) Miscellaneous corrections for Stage 2 NR sidelink relay Apple CR Rel-17 38.300 17.4.0 0656 1 F NR\_SL\_relay-Core R2-2303384

[R2-2305059](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305059%2038331_Correction_FD_SL_Relay.docx) Correction on field description of sl-DestinationIdentityL2U2N Apple CR Rel-17 38.331 17.4.0 4086 - F NR\_SL\_relay-Core

[R2-2305060](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305060%2038331_Correction_SUI_relay.docx) Corrections on triggering conditons of SUI message for SL relay Apple CR Rel-17 38.331 17.4.0 4087 - F NR\_SL\_relay-Core

[R2-2305212](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305212%20Clarification%20on%20sidelink%20discovery.docx) Clarification on sidelink discovery ZTE, Sanechips CR Rel-17 38.304 17.4.0 0342 - F NR\_SL\_relay-Core

[R2-2305215](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305215.docx) Correction on remote UE’s behavior upon SIB1 reception Xiaomi CR Rel-17 38.331 17.4.0 4092 - F NR\_SL\_relay-Core

[R2-2305243](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305243_UE%20behavior%20when%20the%20NW%20indicates%20not%20supporting%20discovery.docx) UE behavior when the NW indicates not supporting discovery vivo CR Rel-17 38.331 17.4.0 4093 - F NR\_SL\_relay-Core

[R2-2305244](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305244_Correction%20on%20%20L2%20U2N%20Relay%20UE%20behavior%20upon%20upon%20cell%20selection.docx) Correction on L2 U2N Relay UE behavior upon cell selection vivo CR Rel-17 38.331 17.4.0 4094 - F NR\_SL\_relay-Core

[R2-2305274](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5C38300_CR0674_%28Rel-17%29_R2-2305274-Correction%20on%20direct%20to%20indirect%20path%20switching.docx) Correction on direct to indirect path switching CATT CR Rel-17 38.300 17.4.0 0674 - F NR\_SL\_relay-Core

[R2-2305275](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5C38300_CR0675_%28Rel-17%29_R2-2305275-Correction%20on%20the%20PC5%20unicast%20link%20release%20in%20case%20of%20indirect%20to%20direct%20path%20switching.docx) Correction on the PC5 unicast link release in case of indirect to direct path switching CATT CR Rel-17 38.300 17.4.0 0675 - F NR\_SL\_relay-Core

[R2-2305573](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305573%2038331%20Sidelink%20discovery%20transmission%20upon%20reception%20of%20SIB12.docx) On sidelink discovery transmission upon reception of SIB12 Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.4.0 4113 - F NR\_SL\_relay-Core

[R2-2305587](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305587%2038300%20Differentiation%20of%20SL%20and%20SD%20RSRP.docx) Differentiation of SD-RSRP and SL-RSRP Nokia, Nokia Shanghai Bell CR Rel-17 38.300 17.4.0 0679 - F NR\_SL\_relay-Core

[R2-2305846](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305846%20Reception%20of%20PC5%20release%20message%20during%20re-establishment%20v1.0.docx) Reception of PC5 release message during re-establishment Lenovo discussion Rel-17 38.331 NR\_SL\_relay-Core

[R2-2305849](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305849-%20CR4118%20Correction%20for%20release%20message%20with%20re-establishment%20v1.0.docx) Correction for release message with re-establishment Lenovo CR Rel-17 38.331 17.4.0 4118 - F NR\_SL\_relay-Core

[R2-2306115](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306115_Corrections%20on%20L2%20U2N%20Relay.docx) Corrections on L2 U2N Relay ASUSTeK CR Rel-17 38.331 17.4.0 4135 - F NR\_SL\_relay-Core

[R2-2306131](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CDocs%5CR2-2306131.zip) Correction on Sidelink Relay discovery procedure Philips International B.V. CR Rel-17 38.331 17.4.0 4137 - F NR\_SL\_relay-Core

[R2-2306194](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5C38331_CR4140_%28Rel-17%29_R2-2306194%20RRC%20corrections%20for%20SL%20Relay.docx) RRC corrections for SL Relay Huawei, HiSilicon CR Rel-17 38.331 17.4.0 4140 - F NR\_SL\_relay-Core

[R2-2306498](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306498%20-%2038.331_CR4155_Rel17_Correction%20on%20Sidelink%20Discovery%20Transmissions.docx) Correction on Sidelink Discovery Transmissions Ericsson España S.A. CR Rel-17 38.331 17.4.0 4155 - F NR\_SL\_relay-Core

### 6.3.2 User plane corrections

A single CR with miscellaneous corrections is encouraged. Small editorial corrections should be sent directly to the CR rapporteur for the corresponding spec. Larger open issues can be discussed with contributions (limited time).

[R2-2305211](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305211%20Corrections%20on%20SRAP%20for%20SL%20relay.docx) Corrections on SRAP for SL relay ZTE Corporation, Sanechips CR Rel-17 38.351 17.4.0 0021 - F NR\_SL\_relay-Core

Discussion:

ZTE indicate some comments on the logic were received.

Samsung think the first change should not have the “i.e.” parenthetical.

Huawei think the original wording in the first part is correct, because the case that SL-RLC1 is not configured is already covered. They are fine with the second change. Ericsson agree.

ZTE think there is a case where there is an SRB entry without the RLC channel.

Samsung think we can discuss offline.

* [AT122][410][Relay] SRAP corrections (ZTE)

 Scope: Check the intention of the first change and the details of wording for the CR in R2-2305211.

 Intended outcome: Agreeable CR in R2-2306679

 Deadline: Wednesday 2023-05-24 2000 KST

[R2-2305589](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305589%20Corrections%20on%20SRAP%20for%20SL%20relay.docx) Corrections on SRAP for SL relay NEC, Apple, Samsung, ZTE CR Rel-17 38.351 17.4.0 0020 2 F NR\_SL\_relay-Core R2-2304480

* Agreed

Discussion:

Samsung clarify that this should have been in the list of AIP CRs (R2-2304480 from last meeting).

[R2-2306195](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5C38351_CR0022_%28Rel-17%29_R2-2306195%20Clarification%20on%20the%20SRAP%20configuration%20used%20in%20SRAP.docx) Clarification on the SRAP configuration used in SRAP Huawei, HiSilicon CR Rel-17 38.351 17.4.0 0022 - F NR\_SL\_relay-Core

* Agreed as R2-2306680, without the first change

Discussion:

OPPO think the first change is not needed and the NOTE is in line with how we normally operate; the need codes should prevent misunderstanding of the configuration. For the second change, they prefer the original wording.

Samsung think the understanding of the first change is correct but does not need to be clarified.

Apple think the first change is not necessary as indicated by OPPO and Samsung. For the second change they have no strong view.

NEC have the same understanding as OPPO; for the first change, the intention of the CR is aligned with the current understanding. They are fine with the second set of change.

Huawei think we could take an agreement in the notes to clarify the understanding.

Ericsson want to clarify that this is similar to legacy behaviour, and they wonder why we capture it explicitly. Huawei think this behaviour is not captured explicitly in RRC.

Samsung agree that the spec does not call out the behaviour explicitly with a field name.

Ericsson understood from Samsung’s comment that it is not legacy behaviour.

Samsung think we have just referred to the routing configuration table in the past, and here we refer to the specific RRC field name; they understand that Huawei’s interpretation is correct, but they are not sure if it is correctly described as “legacy” behaviour.

Ericsson think the need code should already capture the behaviour.

Huawei agree with the comments that RRC configurations will follow the need code, and a reasonable UE implementation would assume the whole configuration should be used.

Apple wonder why it applies only to the relay UE. Huawei agree it should cover both.

Agreements:

The proposed NOTE in section 4.5 (first change in the CR) is not added.

RAN2 understand that the configuration of SRAP entity for the U2N relay or remote UE is derived from the whole configuration applied by the UE, but not the latest received configuration via RRC message, e.g. for matching an entry in a received RRC field. No specification impact is expected.

Changes after the first change in the CR are agreed.

## 6.5 NR positioning enhancements

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

Tdoc Limitation: 2 tdocs

### 6.5.0 In principle agreed CRs

[R2-2304792](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304792%20Correction%20to%20UEPositioningAssistanceInformation.docx) Correction to UEPositioningAssistanceInformation Huawei, HiSilicon CR Rel-17 38.305 17.4.0 0124 2 F NR\_pos\_enh-Core R2-2304540

* Agreed

[R2-2304884](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304884%20CR%20to%2038305%20Measurements%20TRP%20AD.docx) Measurements and Assistance Data Transfer Nokia, Nokia Shanghai Bell CR Rel-17 38.305 17.4.0 0126 2 F NR\_pos\_enh-Core R2-2304494

* Agreed

[R2-2304885](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304885%20CR%20to%2038305%20Integrity.docx) Protection Level and Target Integrity Risk Nokia, Nokia Shanghai Bell CR Rel-17 38.305 17.4.0 0127 2 F NR\_pos\_enh-Core R2-2304495

* Agreed

[R2-2304886](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304886%20CR%20to%2037355%20LOS-NLOS%20Indicator_v02.docx) LOS-NLOS-Indicator Types Nokia, Nokia Shanghai Bell, Qualcomm Incorporated CR Rel-17 37.355 17.4.0 0442 2 F NR\_pos\_enh-Core R2-2304496

* Agreed

[R2-2305131](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305131%20Misc%20LPP%20corrections%20R17%2037355.docx) Miscellaneous corrections on LPP Lenovo CR Rel-17 37.355 17.4.0 0432 1 F NR\_pos\_enh-Core R2-2302884

* Agreed

[R2-2305289](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305289_37355r2_CR0431_%28Rel-17%29.docx) Corrections on applicability of timing error margin of RxTEG in NR-Multi-RTT-SignalMeasurementInformation field descriptions and other Miscellaneous corrections CATT CR Rel-17 37.355 17.4.0 0431 2 F NR\_pos\_enh-Core R2-2304520

* Agreed

[R2-2305290](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305290_38331r2_CR3956_%28Rel-17%29.docx) Corrections on the figure of UE Positioning Assistance Information procedure CATT CR Rel-17 38.331 17.4.0 3956 2 F NR\_pos\_enh-Core R2-2304281

* Agreed

[R2-2305291](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305291_38305r2_CR0123_%28Rel-17%29.docx) Miscellaneous corrections on 38.305 CATT CR Rel-17 38.305 17.4.0 0123 2 F NR\_pos\_enh-Core R2-2304516

* Agreed

[R2-2305444](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305444.docx) Stage 2 procedure for deactivation of MG gap and PPW Intel Corporation CR Rel-17 38.305 17.4.0 0135 1 F NR\_pos\_enh-Core R2-2304463

* Agreed

[R2-2305445](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305445.docx) LPP capability for FGs27-13a,14a and 14-2 Intel Corporation CR Rel-17 37.355 17.4.0 0445 1 F NR\_pos\_enh-Core R2-2304462

* Agreed

[R2-2306018](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306018%20AIP.docx) Update of information transfer from gNB to LMF Ericsson CR Rel-17 38.305 17.4.0 0125 2 F NR\_pos\_enh-Core R2-2304457

* Agreed

Discussion:

No comments, all AIP CRs are agreed.

### 6.5.1 Corrections

A single CR per TS (Stage-2, RRC, LPP, MAC, UEcap 306) with miscellaneous corrections is encouraged. Small editorial corrections should be sent directly to the CR rapporteur. Larger open issues can be discussed with contributions (limited time).

Incoming LS and draft reply

[R2-2304608](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304608_C4-230655.docx) LS on GNSS integrity requirement parameters definition (C4-230655; contact: Huawei) CT4 LS in Rel-17 5G\_eLCS\_ph2 To:RAN2 Cc:SA2

[R2-2304804](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304804%20Reply%20to%20CT4%20on%20GNSS%20integrity%20requirements.docx) Reply to CT4 on GNSS integrity requirements Huawei, HiSilicon discussion Rel-17 NR\_pos\_enh-Core

Discussion:

Qualcomm agree with the document that the use cases are our only guideline for the TTA, but they think the reasoning should be the same for the AL, since it is based on an application requirement, while the PL is based on a system calculation and can exceed the AL.

Nokia think on P1 (about the AL), the AL can be greater than the PL. As a way forward, they think RAN2 can recommend value ranges, but we should not introduce new signalling support in LPP.

Ericsson are generally supportive and think the TR is a suitable reference. They understand we just need to provide a sufficient range and should not discuss the details too much.

vivo are fine with P2 but think AL<PL is important to support.

CATT think we discussed the range of AL before, and the understanding was that it was essentially unbounded, but they think Huawei’s proposed range is OK.

Huawei agree AL can be larger or smaller than PL, but they think the range should be the same to allow comparing them. They clarify that they do not intend to change the PL range in LPP.

Intel think the term “define” is confusing and sounds like spec impact to us.

Huawei think we could have future spec impact if we support mode 2 reporting, and we could take these ranges as a guideline in case that happens.

Nokia think as long as the LMF has the AL and TTA, it is still within LMF implementation to calculate if there is an integrity event.

Qualcomm think we do not need TTA for mode 2, but we should focus on replying to CT4. Intel agree with Qualcomm.

Agreements:

Indicate to CT4 the range of horizontal and vertical alert limit same as the the horizontal and vertical protection level in TS 37.355, with the range to be from 0.01 meter to 500 meters, with 0.01 meters granularity

Indicate to CT4 the range of TTA based on the use cases listed in TR 38.857 as from 0.1s to 30s, with 0.1s granularity

No stage 3 impact to RAN2 specs is expected.

* [AT122][408][POS] Reply LS to CT4 on integrity parameters (Huawei)

 Scope: Draft a reply to R2-2304608 in line with the agreements reached online.

 Intended outcome: Approvable LS in R2-2306681

 Deadline: Wednesday 2023-05-24 2000 KST

Agenda item summary

[R2-2306756](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306756%20%5BPre122%5D%5B407%5D%5BPOS%5D%20Summary%20of%20AI%206.5.1%20on%20Rel-17%20positioning%20%28CATT%29.docx) [Pre122][407][POS] Summary of AI 6.5.1 on Rel-17 positioning CATT discussion Rel-17 NR\_pos\_enh-Core

[Chair’s note: Changemarks are not included in the proposals below—see the contribution for marked-up versions.]

LPP CR:

Proposal 1: The CR in

R2-2305895 Miscelaneous LPP Corrections Qualcomm Incorporated (Rapporteur) CR Rel-17 37.355 17.4.0 0448 - F NR\_pos\_enh-Core

is essential correction. Update the Cover Sheet: The index of Editorial errors remain in Consequences if not approved should be (3).

Discussion:

Nokia think in nr-Multi-RTT-AdditionalMeasurements, “should not be present” is the wrong phrase. To be changed to “shall be absent”.

Proposal 2-1: The 1st change in CR

R2-2306025 Miscellaneous corrections and additions Ericsson, Fraunhofer IIS, Fraunhofer HHI CR Rel-17 37.355 17.4.0 0449 - F NR\_pos\_enh-Core

can be merged into rapporteur CR (LPP):

– AreaID-CellList

The IE AreaID-CellList provides the NR Cell-IDs of the TRPs belonging to a particular network area where the associated assistance data are valid. Each cell is included in only one area.

Discussion:

CATT indicate that the words “each cell is included in only one area” should be “each cell is included in only one AreaID-CellList”. Intel think in that case we should say “each Cell-ID”.

To be merged into the revision of R2-2305895.

Agreement:.

The 1st change in CR

R2-2306025 Miscellaneous corrections and additions Ericsson, Fraunhofer IIS, Fraunhofer HHI CR Rel-17 37.355 17.4.0 0449 - F NR\_pos\_enh-Core

can be merged into rapporteur CR (LPP).

Proposal 2-2: The 2nd changes in CR

R2-2306025 Miscellaneous corrections and additions Ericsson, Fraunhofer IIS, Fraunhofer HHI CR Rel-17 37.355 17.4.0 0449 - F NR\_pos\_enh-Core

are not essential.

Discussion:

Ericsson think it would be good to describe the fields, and they thought it was good to have, but they are open to hear other company views.

Intel think we already agreed one field description to merge into the rapporteur CR and this one is not a problem.

CATT think the subset shows the relation of the resource IDs, so they think it is incorrect to delete the subset description, and the proposed descriptions are also not correct as explained in the summary. So a different change would be necessary.

Qualcomm agree with CATT and think the existing description is correct.

* Change 2 is not pursued

Proposal 3: RAN2 to discuss if this CR

R2-2306026 Missing finer periodicities than 1s Ericsson CR Rel-17 37.355 17.4.0 0450 - F NR\_pos\_enh-Core

is essential correction or can be postponed waiting for the ReportingInterval updated as ms in CT4.

Discussion:

Huawei agree with the observation from the rapporteur that it should be discussed in CT4 first, because the values are only meaningful if the service layer supports them.

Qualcomm think from our pov this is not related to the CT4 spec; there was CN support for periodic reporting in UMTS, but not in LTE or NR. So they understand that this is only an LPP value. They think there are use cases for periodic reporting (e.g., integrity). However, they agree that it is not a correction as such.

Ericsson think it is still a correction to align between NRPPa and LPP, and CT4 are adding a requirement for frequent periodic reporting.

Huawei understand from SA2 side that Ericsson are correct; the service layer can request reporting with periodicities in ms, and LPP can only support to 1 s. They think the requirement should come from CT4.

CATT understand CT4 are discussing it, and they suggest we postpone the CR and wait for a conclusion there.

* Postponed

Proposal 4-1: The 1st change as below in CR

R2-2306259 NR-TRP-LocationInfo for UE-based DL-TDOA and DL-AoD positioning Nokia, Nokia Shanghai Bell CR Rel-17 37.355 17.4.0 0454 - F NR\_pos\_enh-Core,

is essential correction.

nr-TRP-LocationInfo

This field provides the location coordinates of the TRPs and location coordinates of antenna reference points for DL-PRS Resource Set(s) and DL-PRS Resources of the TRPs.

– NR-TRP-LocationInfo

The IE NR-TRP-LocationInfo is used by the location server to provide the coordinates of TRPs and coordinates of the antenna reference points for a set of TRPs. For each TRP, the ARP location can be provided for each associated PRS Resource ID per PRS Resource Set.

Discussion:

Intel wonder if it should be “TRP location or ARP location”. Nokia think the two concepts are distinguished; there is a notion of TRP location, as well as ARP location within the TRP. They indicate that the ASN.1 has the fields separately.

CATT think the correction is correct.

Qualcomm think this is correct but editorial; if we provide just one coordinate it is TRP location, and an additional coordinate refers to the ARP location. They see it as aligning the introductory text with the ASN.1 structure and think it could be merged.

Nokia are OK with merging, and they think the second change below is critical for correctness.

Proposal 4-2: The 2nd changes in CR

R2-2306259 NR-TRP-LocationInfo for UE-based DL-TDOA and DL-AoD positioning Nokia, Nokia Shanghai Bell CR Rel-17 37.355 17.4.0 0454 - F NR\_pos\_enh-Core

are editorial corrections and correct.

* R2-2306259 is merged into R2-2306676

MAC CR:

Proposal 5: The corrections in CR

R2-2304803 Correction to MAC spec for Positoning Enhancements Huawei, HiSilicon, Ericsson, ZTE CR Rel-17 38.321 17.4.0 1614 - F NR\_pos\_enh-Core

are essential corrections.

For change 2, take the suggest wording “Semi-Persistent SRS that is activated according to clause 5.18.17” into consideration according to the comments at last meeting.

For the coversheet, the impact analysis should be moved to Summary of change.

Discussion:

Samsung agree with the wording changes, and they point out that the Source to TSG field should say “R2” and the revision number is needed.

Huawei clarify that the CR is not purely a resubmission/revision.

Agreements:

The corrections in CR

R2-2304803 Correction to MAC spec for Positoning Enhancements Huawei, HiSilicon, Ericsson, ZTE CR Rel-17 38.321 17.4.0 1614 - F NR\_pos\_enh-Core

are essential corrections.

For change 2, take the suggest wording “Semi-Persistent SRS that is activated according to clause 5.18.17” into consideration according to the comments at last meeting.

For the coversheet, the impact analysis should be moved to Summary of change and the “Source to TSG” should say “R2”.

RRC CR:

Proposal 6: For the correction in CR

R2-2305363 Correction on PosSRS-RRC-Inactive-OutsideInitialUL-BWP Huawei, HiSilicon CR Rel-17 38.331 17.4.0 4102 - F NR\_pos\_enh-Core

confirm online whether the unit of the maxSRSposBandwidthForEachSCS-withinCC-FR1-r17 and maxSRSposBandwidthForEachSCS-withinCC-FR2-r17 is MHz. If yes, this CR is essential correction.

Discussion:

Huawei indicate that there are comments to capture the same change in the LPP CR.

Agreements:

The correction in CR

R2-2305363 Correction on PosSRS-RRC-Inactive-OutsideInitialUL-BWP Huawei, HiSilicon CR Rel-17 38.331 17.4.0 4102 - F NR\_pos\_enh-Core

is an essential correction.

Parallel change to be made in the revised LPP rapporteur CR in R2-2306676.

Stage-2 CR:

Proposal 7-1: The correction in CR

R2-2306258 Alert Limit Nokia, Nokia Shanghai Bell CR Rel-17 38.305 17.4.0 0136 - F NR\_pos\_enh-Core

is essential correction but RAN2 to further review the definition of AL following the agreement achieved in RAN2#111. Update the impact analysis to satisfy the prescribed format.

Alert Limit (AL): The maximum allowable positioning error. If the positioning error is beyond this limit, the integrity results of the calculated location may not meet the LCS client service requirement.

Discussion:

CATT clarify the wording in the proposal is from the CR.

Nokia indicate they intended to capture the same concept from the TR, but they tried to avoid the term “positioning system”. They are OK to copy the definition from the previous agreement.

Ericsson prefer the original version and think it aligns with the definition.

ZTE prefer Nokia’s original wording; they find “positioning system” to be an unclear term.

Swift think some discussion would be useful regarding the definition of failure to meet the AL.

Agreement:

Definition to be captured as follows:

Alert Limit (AL): The maximum allowable positioning error for the purpose of integrity. If the positioning error is beyond this limit, the integrity results of the calculated location may not meet the integrity requirement.

Proposal 7-2: Beside the definition of AL, add the definition of TIR to this CR together.

Discussion:

CATT clarify that this was an observation from the rapporteur. Swift think we agreed the TIR definition previously; Nokia confirm it is in the AIP CRs (R2-2304885).

The following documents will not be individually treated

[R2-2304803](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304803%20Correction%20to%20PosSRS%20transmission%20in%20RRC_INACTIVE.docx) Correction to MAC spec for Positoning Enhancements Huawei, HiSilicon, Ericsson, ZTE CR Rel-17 38.321 17.4.0 1614 - F NR\_pos\_enh-Core

* Agreed as R2-2306677, with the changes indicated under the corresponding proposal above.

[R2-2305363](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305363%20Correction%20on%20PosSRS-RRC-Inactive-OutsideInitialUL-BWP.docx) Correction on PosSRS-RRC-Inactive-OutsideInitialUL-BWP Huawei, HiSilicon CR Rel-17 38.331 17.4.0 4102 - F NR\_pos\_enh-Core

* Agreed

[R2-2305895](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305895_%28Misc%20LPP%20corrections%29.docx) Miscelaneous LPP Corrections Qualcomm Incorporated (Rapporteur) CR Rel-17 37.355 17.4.0 0448 - F NR\_pos\_enh-Core

* Revised as R2-2306676, with a coversheet correction to identify the third set of consequences, and with nr-Multi-RTT-AdditionalMeasurements field description saying “shall be absent”, and with merges from other CRs as agreed during discussion.
* [AT122][409][POS] Update of LPP rapporteur CR (Qualcomm)

 Scope: Update R2-2305895 in line with the discussion of this meeting.

 Intended outcome: Agreeable CR in R2-2306676

 Deadline: Wednesday 2023-05-24 2000 KST

[R2-2306025](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306025%20LPPmisc.docx) Miscellaneous corrections and additions Ericsson, Fraunhofer IIS, Fraunhofer HHI CR Rel-17 37.355 17.4.0 0449 - F NR\_pos\_enh-Core

* Merged into R2-2306676 (without change 2)

[R2-2306026](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306026%20PeriodicCR.docx) Missing finer periodicities than 1s Ericsson CR Rel-17 37.355 17.4.0 0450 - F NR\_pos\_enh-Core

* Postponed

[R2-2306258](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306258%20CR%20to%2038305%20Alert%20Limit%20Definition%20for%20Integrity.docx) Alert Limit Nokia, Nokia Shanghai Bell CR Rel-17 38.305 17.4.0 0136 - F NR\_pos\_enh-Core

* Agreed as R2-2306678, with the definition reworded as in the agreement under P7-1 of R2-2306756.

[R2-2306259](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306259%20CR%20to%2037355%20NR-TRP-LocationInfo.docx) NR-TRP-LocationInfo for UE-based DL-TDOA and DL-AoD positioning Nokia, Nokia Shanghai Bell CR Rel-17 37.355 17.4.0 0454 - F NR\_pos\_enh-Core

* Merged into R2-2306676

Withdrawn/Not available

R2-2304802 Correction on PosSRS-RRC-Inactive-OutsideInitialUL-BWP-r17 Huawei, HiSilicon CR Rel-17 38.306 17.4.0 0910 - F NR\_pos\_enh-Core Withdrawn

R2-2306086 Correction on Location measurement indication for positioning ZTE Corporation CR Rel-17 38.331 17.4.0 4129 - F NR\_pos\_enh-Core Withdrawn

R2-2306087 Discussion on Location measurement indication for positioning ZTE Corporation discussion Rel-17 38.331 NR\_pos\_enh-Core Withdrawn

# 7 Rel-18

## 7.2 Expanded and improved NR positioning

(NR\_pos\_enh2; leading WG: RAN1; REL-18; WID: RP-223549)

Time budget: 2 TU

Tdoc Limitation: 4 tdocs

### 7.2.1 Organizational

Including incoming LSs and rapporteur inputs.

Incoming LS with RAN2 in Cc:

[R2-2304650](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304650_S2-2305726.docx) Reply LS to Reply LS to LS on SL positioning groupcast and broadcast (S2-2305726; contact: Xiaomi) SA2 LS in Rel-18 Ranging\_SL To:SA3 Cc:RAN2

Incoming LSs with “take into account” actions

[R2-2304614](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304614_R1-2304147.docx) Reply LS to RAN2 on error source distributions (R1-2304147; contact: InterDigital) RAN1 LS in Rel-18 NR\_pos\_enh2 To:RAN2

[R2-2304615](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304615_R1-2304152.docx) Reply LS on RAN dependency for Ranging & Sidelink Positioning (R1-2304152; contact: Xiaomi) RAN1 LS in Rel-18 NR\_pos\_enh2 To:RAN2 Cc:SA2

[R2-2304657](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304657_S3-232232.docx) Reply LS on LPP message and supplementary service event report over a user plane connection between UE and LMF and LS on UE event reporting over a user plane connection to LCS client or AF (S3-232232; contact: Ericsson) SA3 LS in Rel-18 5G\_eLCS\_Ph3 To:SA2, RAN2, CT1, CT3, CT4

Other incoming LSs

[R2-2304647](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304647_S2-2303837.docx) LS on support of multiple Target UEs (S2-2303837; contact: Qualcomm) SA2 LS in Rel-18 Ranging\_SL To:RAN2 Cc:RAN1

[R2-2304651](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CDocs%5CR2-2304651.zip) Reply LS to LS to SA2 on Sidelink positioning procedure (S2-2305735; contact: Xiaomi) SA2 LS in Rel-18 Ranging\_SL To:RAN2, RAN1 Cc:SA3

Draft replies

[R2-2305729](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305729%20Draft%20Reply%20LS%20%20to%20SA2%20on%20Sidelink%20positioning%20procedure.docx) Draft Reply LS to SA2 on Sidelink positioning procedure Xiaomi LS out Rel-18 To:RAN1

[R2-2306387](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306387_%28Support%20of%20Multiple%20Target%20UEs%20for%20Sidelink%20Positioning%29.docx) Support of Multiple Target UEs for Sidelink Positioning (draft response LS to R2-2302448 (S2-2303837)) Qualcomm Incorporated discussion

Work plan

[R2-2306253](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306253%20Work%20Plan%20for%20Rel-18%20WI%20on%20Expanded%20and%20Improved%20NR%20Positioning.docx) Work Plan on Rel-18 Positioning Work Item CATT, Intel Corporation, Ericsson Work Plan Rel-18

TS 38.355

[R2-2305438](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305438.docx) Further considerations on SLPP specification Intel Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2305439](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CDocs%5CR2-2305439.zip) TS 38.355 v0.0.3 Intel Corporation draft TS Rel-18 38.355 0.0.3 NR\_pos\_enh2

Running CRs (excluding TS 38.355 draft)

[R2-2304769](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304769%20LPP%20running%20CR%20for%20RAT-dependent%20integrity.docx) LPP running CR for RAT-dependent integrity CATT draftCR Rel-18 37.355 17.4.0 B NR\_pos\_enh2

[R2-2305896](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305896_%28Running%20Stage%202%20CR%29_v00.docx) Running Stage 2 CR for 'Expanded and improved NR positioning' Qualcomm Incorporated draftCR Rel-18 38.305 17.4.0 B NR\_pos\_enh2-Core

### 7.2.2 Sidelink positioning

Positioning architecture and signalling procedures (e.g. configuration, measurement reporting, etc) to enable sidelink positioning. Including measurements to enable RTT-based positioning, SL-AoA, and SL-TDOA; signalling and associated UE behaviour for support of unicast, groupcast (not including many-to-one) and broadcast of SL-PRS transmissions; reporting signalling and procedures to facilitate support of SL positioning in all coverage scenarios and for PC5-only and joint PC5-Uu scenarios; and signalling to NG-RAN for SL positioning and service authorization as needed.

Agenda item summary and report of [AT122][401]

[R2-2306757](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CDocs%5CR2-2306757.zip) [Pre122][401][POS] Summary of AI 7.2.2 on sidelink positioning (Xiaomi) Xiaomi discussion Rel-18

* [AT122][401][POS] Sidelink positioning summary proposals (Xiaomi)

 Scope: Discuss and gauge support on the proposals in R2-2306757, converge on easily agreeable parts, and identify discussion points for the online session on Wednesday 2023-05-24.

 Intended outcome: Summary to online session in R2-2306671

 Deadline: Tuesday 2023-05-23 2000 KST

The following tdocs will not be individually treated

[R2-2304716](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304716.docx) Discussion of signalling procedures Nokia, Nokia Shanghai Bell discussion Rel-18

[R2-2304717](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304717.docx) Session-less SL positioning and groupcast / broadcast messaging Nokia, Nokia Shanghai Bell discussion Rel-18

[R2-2304770](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304770%20Discussion%20on%20sidelink%20positioning.docx) Discussion on sidelink positioning CATT discussion Rel-18 NR\_pos\_enh2

[R2-2304801](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304801%20Discussion%20on%20sidelink%20positioning_v02.docx) Discussion on Sidelink Positioning Huawei, HiSilicon discussion Rel-18 NR\_pos\_enh2

[R2-2304949](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304949_Sidelink_Fraunhofer.docx) UE Positioning using Sidelink Fraunhofer IIS, Fraunhofer HHI discussion R2-2302588

[R2-2305066](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305066-SL-PRS-config-v0.docx) SL PRS configuration Apple discussion Rel-18 NR\_pos\_enh2

[R2-2305067](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305067-pos-broadcast-v0%202.docx) SL positioning groupcast and broadcast Apple discussion Rel-18 NR\_pos\_enh2

[R2-2305068](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305068-reply-LS-on-SL-POS-security.docx) [DARFT] Reply LS on SL positioning groupcast and broadcast Apple LS out Rel-18 NR\_pos\_enh2 To:SA3 Cc:SA2

[R2-2305137](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305137%20SLPP%20and%20session%20aspects.doc) Further discussion on SLPP and session-based SL positioning Lenovo discussion Rel-18 NR\_pos\_enh2

[R2-2305331](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305331%20Discussion%20on%20sidelink%20positioning.docx) Discussion on sidelink positioning vivo discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2305343](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305343%20Further%20discussion%20on%20sidelink%20positioning.docx) Further discussion on sidelink positioning OPPO discussion Rel-18 NR\_pos\_enh2

[R2-2305344](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305344%20Further%20discussion%20on%20%20anchor%20UE%20reselection%20for%20sidelink%20positioning.doc) Further discussion on anchor UE reselection for sidelink positioning OPPO discussion Rel-18 NR\_pos\_enh2

[R2-2305392](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305392_SLPosArch.docx) On SL Positioning Architecture Aspects Lenovo discussion Rel-18

[R2-2305440](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305440.docx) Further considerations on sidelink positioning Intel Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2305509](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305509_SL_Pos_Res.docx) Considerations on sidelink positioning resources Sony discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2305562](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305562%20Discussion%20on%20sidelink%20positioning.docx) Discussion on sidelink positioning Spreadtrum Communications discussion Rel-18

[R2-2305636](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305636%20Considerations%20on%20Sidelink%20positioning.doc) Considerations on Sidelink positioning CMCC discussion Rel-18 NR\_pos\_enh2

[R2-2305730](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305730%20Draft%20Reply%20LS%20%20to%20SA3%20on%20SL%20positioning%20groupcast%20and%20broadcast.docx) Draft Reply LS to SA3 on SL positioning groupcast and broadcast Xiaomi LS out Rel-18 To:RAN1

[R2-2305731](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305731%20Discussion%20on%20SL%20positioning.doc) Discussion on SL positioning Xiaomi discussion Rel-18

[R2-2305768](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305768%20%28R18%20NR%20POS%20A722%20SL%20POS%29.docx) Discussion on Sidelink positioning InterDigital Inc. discussion Rel-18 NR\_pos\_enh2

[R2-2305867](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305867.docx) LMF roles and protocols for sidelink positioning MediaTek Inc. discussion NR\_pos\_enh2-Core

[R2-2306020](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306020%20Sidelink.docx) Sidelink positioning Ericsson discussion Rel-18

[R2-2306078](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306078%20Discussion%20on%20sidelink%20positioning.docx) Discussion on sidelink positioning ZTE Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2306145](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306145%20%287.2.2%29%20SLPP%20design%20in%20session%20perspectives.docx) SLPP design for session aspects Samsung R&D Institute UK discussion

[R2-2306334](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306334%20SLPP%20session%20management%20and%20operation.docx) SLPP session management and operation LG Electronics Inc. discussion Rel-18

[R2-2306335](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306335%20SLPP%20reliable%20transport%20functionality.docx) SLPP reliable transport functionality LG Electronics Inc. discussion Rel-18

[R2-2306336](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306336%20Sidelink%20positioning%20parameters%20for%20Anchor%20UE%20selection.docx) Sidelink positioning parameters for Anchor UE selection LG Electronics Inc. discussion Rel-18

[R2-2306373](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306373%20Discussion%20on%20sidelink%20positioning%20parameters%20in%20discovery%20signalling.doc) Discussion on Sidelink positioning parameters in discovery signalling Samsung discussion Rel-18 NR\_pos\_enh2

[R2-2306422](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306422_%28Sidelink%20Positioning%29.docx) Sidelink Positioning Protocol (SLPP) Signaling and Procedures Qualcomm Incorporated discussion

[R2-2306446](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306446-Further%20discussion%20on%20SL%20positioning%20procedures%20and%20signaling%20protocols%20for%20SL%20positioning.docx) Further discussion on SL positioning procedures and signaling protocols for SL positioning CEWiT discussion

[R2-2306457](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306457%20SL%20pos%20server.doc) On the support of SL positioning server functionality Philips International B.V. discussion NR\_pos\_enh2 R2-2304182

[R2-2306515](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306515_On%20the%20selection%20of%20Anchor%20UEs%20for%20Sidelink%20Positioning.doc) On the selection of Anchor UEs for Sidelink Positioning Philips International B.V. discussion NR\_pos\_enh2 R2-2303753

### 7.2.3 RAT-dependent integrity

Error modelling parameters, signalling, and procedures to support UE-based and LMF-based integrity of RAT-dependent positioning methods.

[R2-2304771](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304771%20Discussion%20on%20RAT-Dependent%20integrity.docx) Discussion on RAT-dependent Integrity CATT discussion Rel-18 NR\_pos\_enh2

[R2-2304800](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304800%20Discussion%20on%20RAT-dependent%20integrity_final.docx) Discussion on RAT-dependent Integrity Huawei, HiSilicon discussion Rel-18 NR\_pos\_enh2

[R2-2305332](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305332%20Signaling%20design%20of%20UE-based%20RAT-dependent%20integrity.docx) Signaling design of UE-based RAT-dependent integrity vivo discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2305341](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305341%20Consideration%20on%20RAT-dependent%20positioning%20integrity.docx) Consideration on RAT-dependent positioning integrity OPPO discussion Rel-18 NR\_pos\_enh2

[R2-2305441](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305441.docx) Further considerations on RAT dependent integrity Intel Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2305563](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305563%20Discussion%20on%20RAT-dependent%20integrity.docx) Discussion on RAT-dependent integrity Spreadtrum Communications discussion Rel-18

[R2-2305624](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305624.docx) Discussion on the RAT-dependent integrity issues CMCC discussion Rel-18 NR\_pos\_enh2

[R2-2305642](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305642%20%28R18%20NR%20POS%20A723%20RAT%20dependent%20integrity%29.docx) Discussion on RAT dependent integrity InterDigital, Inc. discussion Rel-18

[R2-2305668](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305668%20Discussion%20on%20RAT-dependent%20positioning%20integrity.doc) Discussion on RAT-dependent positioning integrity Xiaomi discussion

[R2-2305709](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305709%20Discussion%20on%20RAT-dependent%20integrity.doc) Discussion on RAT-dependent integrity Lenovo discussion Rel-18

[R2-2305823](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305823_%28integrity%29.docx) Integrity of NR Positioning Technologies Qualcomm Incorporated discussion

[R2-2306022](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306022%20Integrity.docx) RAT Dependent positioning Integrity Ericsson discussion Rel-18

[R2-2306076](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306076%20Discussion%20on%20RAT-dependent%20methods%20positioning%20integrity.docx) Discussion on RAT-dependent methods positioning integrity ZTE Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2306255](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306255%20LMF-based%20integrity.docx) LMF-based Integrity Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_pos\_enh2-Core

### 7.2.4 LPHAP

Enhancements for enabling LPHAP use case 6 (TS 22.104), including extending eDRX cycle (coordinated with RedCap WI); SRS configuration enhancements based on validity area for UEs in RRC\_INACTIVE; DL-PRS measurements in RRC\_IDLE and reporting in RRC\_CONNECTED; and alignment between eDRX and PRS configurations.

Agenda item summary

R2-2306540 Summary of AI 7.2.4: LPHAP Qualcomm Incorporated discussion

The following tdocs will not be individually treated

[R2-2304772](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304772%20Discussion%20on%20LPHAP.docx) Discussion on LPHAP CATT discussion Rel-18 NR\_pos\_enh2

[R2-2304799](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304799%20Discussion%20on%20LPHAP_final.docx) Discussion on LPHAP Huawei, HiSilicon discussion Rel-18 NR\_pos\_enh2

[R2-2304887](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304887%20PRS%20and%20DRX%20configuration%20alignment.docx) PRS and DRX configuration alignment Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_pos\_enh2-Core R2-2304059

[R2-2304950](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304950_LPHAP_Fraunhofer.docx) Enhancements for supporting LPHAP Fraunhofer IIS, Fraunhofer HHI discussion R2-2302589

[R2-2305069](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305069-PRS-DRX-alignment-v0.docx) Alignment between DRX and PRS Apple discussion Rel-18 NR\_pos\_enh2

[R2-2305333](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305333%20Discussion%20on%20solution%20of%20LPHAP.doc) Discussion on solution of LPHAP vivo discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2305342](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305342%20Discussion%20on%20LPHAP.docx) Discussion on LPHAP OPPO discussion Rel-18 NR\_pos\_enh2

[R2-2305442](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305442.docx) Further considerations on LPHAP Intel Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2305510](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305510_LPHAP.docx) Considerations on Low Power High Accuracy Positioning Sony discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2305564](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305564%20Discussion%20on%20LPHAP.docx) Discussion on LPHAP Spreadtrum Communications discussion Rel-18

[R2-2305637](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305637%20Considerations%C2%A0on%C2%A0LPHAP.doc) Considerations on LPHAP CMCC discussion Rel-18 NR\_pos\_enh2

[R2-2305644](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305644%20%28R18%20NR%20POS%20A724%20LPHAP%29.doc) Discussion on LPHAP InterDigital, Inc. discussion Rel-18

[R2-2305669](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305669%20Discussion%20on%20LPHA%20positioning.doc) Discussion on LPHA positioning Xiaomi discussion

[R2-2305710](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305710%20Discussion%20on%20low%20power%20high%20accuracy%20positioning.doc) Discussion on low power high accuracy positioning Lenovo discussion Rel-18

[R2-2305822](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305822_%28LPHAP%29.docx) Enhancements for LPHAP Qualcomm Incorporated discussion

[R2-2306021](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306021%20LPHAP.docx) Discussion on Low Power High Accuracy Positioning Ericsson discussion Rel-18

[R2-2306075](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306075%20Discussion%20on%20LPHAP.docx) Discussion on LPHAP ZTE Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2306447](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306447_Discussion%20on%20SRS%20configuration%20in%20RRC_INACTIVE.docx) Discussion on SRS configuration in RRC\_INACTIVE Samsung discussion Rel-18 FS\_NR\_pos\_enh2

### 7.2.5 RedCap positioning, carrier phase positioning, and bandwidth aggregation for positioning

RAN1 led objectives that may require progress in RAN1 before RAN2 can take decisions. This agenda item will be treated at lower priority.

[R2-2304773](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304773%20Discussion%20on%20carrier%20phase%20positioning%20bandwidth%20aggregation%20for%20positioning%20and%20Redcap%20positioning.docx) Discussion on carrier phase positioning, bandwidth aggregation for positioning and Redcap positioning CATT discussion Rel-18 NR\_pos\_enh2

[R2-2305315](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305315%20Discussion%20on%20RAN1%20led%20positioning%20topics.docx) Discussion on RAN1 led positioning topics Huawei, HiSilicon discussion Rel-18

[R2-2305334](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305334%20on-demand%20PRS%20for%20PRS%20bandwidth%20aggregation.docx) on-demand PRS for PRS bandwidth aggregation vivo discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2305443](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305443.docx) Considerations on other RAN1 led items Intel Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2305625](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305625.docx) Discussion on the RedCap UE positioning CMCC discussion Rel-18 NR\_pos\_enh2

[R2-2305645](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305645%20%28R18%20NR%20POS%20A725%20Others%29.docx) Discussion on positioning for RedCap positioning, carrier phase positioning, and bandwidth aggregation for positioning InterDigital, Inc. discussion Rel-18

[R2-2305670](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305670%20Discussion%20on%20RedCap%20UE%20positioning.doc) Discussion on RedCap UE positioning Xiaomi discussion

[R2-2306023](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306023%20RedCap.docx) RedCap positioning, carrier phase positioning, and bandwidth aggregation for positioning Ericsson discussion Rel-18

[R2-2306077](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306077%20Discussion%20on%20BW%20aggregation%20and%20RedCap%20positioning.docx) Discussion on BW aggregation and RedCap positioning ZTE Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2306448](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306448_Discussion%20on%20bandwidth%20aggregation.docx) Discussion on bandwidth aggregation Samsung discussion Rel-18 FS\_NR\_pos\_enh2

## 7.9 Enhanced NR Sidelink Relay

(NR\_SL\_relay\_enh-Core; leading WG: RAN2; REL-18; WID: RP-223501)

Time budget: 1.5 TU

Tdoc Limitation: 4 tdocs

### 7.9.1 Organizational

Including incoming LSs and rapporteur inputs.

Incoming LSs with “take into account” actions

[R2-2304617](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304617_R1-2304211.docx) Reply LS on comparison of SL-RSRP and SD-RSRP measurements (R1-2304211; contact: Nokia) RAN1 LS in Rel-18 NR\_SL\_relay\_enh-Core To:RAN2 Cc:RAN4

[R2-2304637](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304637_R4-2306366.docx) LS on Comparison of SL-RSRP and SD-RSRP measurements (R4-2306366; contact: Nokia) RAN4 LS in Rel-18 NR\_SL\_relay\_enh To:RAN2 Cc:RAN1

Other incoming LSs

[R2-2304646](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304646_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

[R2-2304652](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304652_S2-2305915.doc) Reply LS on 5G ProSe Layer-2 UE-to-UE Relay QoS enforcement (S2-2305915; contact: Qualcomm) SA2 LS in Rel-18 5G\_ProSe\_Ph2 To:RAN2

Draft CR

[R2-2305207](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305207-Draft%20running%20CR%2038.300.docx) Draft running CR 38.300 (initial) LG Electronics France draftCR Rel-18 38.300 17.4.0 B NR\_SL\_relay-Core

* Revised in R2-2306554

R2-2306554 Draft running CR 38.300 (update) LG Electronics France draftCR Rel-18 38.300 17.4.0 Bz NR\_SL\_relay-Core

Withdrawn/Not available

R2-2305208 Draft running CR 38.300 (update) LG Electronics France draftCR Rel-18 38.300 17.4.0 Bz NR\_SL\_relay-Core

* Withdrawn

### 7.9.2 UE-to-UE relay

Single-hop Layer-2 and Layer-3 UE-to-UE relay for unicast. Including common L2/L3 functionality comprising relay discovery and (re)selection and L2-specific functionality including adaptation layer design, control plane procedures, and QoS handling if needed.

Agenda item summary

R2-2306555 Summary of AI 7.9.2 on UE-to-UE relay ZTE, Sanechips discussion Rel-18 NR\_SL\_relay\_enh-Core

The following tdocs will not be individually treated

[R2-2304680](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304680%20SRAP%20design%20and%20Connection%20establishment.docx) SRAP design and Connection establishment NEC discussion NR\_SL\_relay\_enh-Core

[R2-2304754](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304754%20-%20Discussion%20on%20U2U%20Relay.docx) Discussion on U2U relay OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2304957](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304957%20Discussion%20on%20the%20adaptation%20layer_v2.doc) Discussion on the adaptation layer Fujitsu discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2305043](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305043%20Further%20discussion%20on%20U2U%20Relay.doc) Further discussion on U2U Relay ZTE, Sanechips discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2305062](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305062%20Discussion%20on%20U2U%20relay%20issues.doc) Discussion on UE-to-UE Relay Apple discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2305180](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305180%20%28R18%20SL%20Relay%20WI_AI792%20RelayDiscoverySelection%29.doc) Discovery and Relay Selection for UE-to-UE Relays InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2305181](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305181%20%28R18%20SL%20Relay%20WI_AI792%20U2U%20Relays%29.doc) QoS and Adaptation Layer for UE-to-UE Relays InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2305210](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305210-Control%20plane%20procedure%20and%20adaptaion%20layer%20for%20U2U%20relay.docx) Control plane procedure and adaptaion layer for U2U relay LG Electronics France discussion Rel-18

[R2-2305233](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305233%2BDiscussion%20on%20NR%20sidelink%20U2U%20relay.doc) Discussion on U2U sidelink relay China Telecom discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2305245](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305245_Discussion%20on%20the%20common%20L2%20L3%20parts%20for%20U2U%20relaying.docx) Discussion on the common L2 L3 parts for U2U relaying vivo discussion

[R2-2305246](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305246_%20Discussion%20on%20the%20L2%20specific%20parts%20for%20U2U%20relaying.docx) Discussion on the L2 specific parts for U2U relaying vivo discussion

[R2-2305279](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305279%20Disussion%20on%20U2U%20Relay.docx) Discussion on U2U Relay CATT discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2305519](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305519.doc) UE-to-UE relay (re)selection Sony discussion Rel-18 NR\_SL\_relay\_enh

[R2-2305520](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305520%20Relay_DRX.docx) Discussion on DRX for Sidelink UE to UE Relay Sony discussion Rel-18 NR\_SL\_relay\_enh

[R2-2305547](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305547_Discussion_on_Relay_reselection_Discovery.docx) Discussion on Relay (re)selection and Discovery Ericsson España S.A. discussion Rel-18

[R2-2305548](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305548_Control_Plane_Procedures_for_L2_U2U_relays.docx) Control Plane Procedures for Layer 2 UE-to-UE Relays Ericsson España S.A. discussion Rel-18

[R2-2305551](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305551.doc) Discussion on UE-to-UE relay Spreadtrum Communications discussion Rel-18

[R2-2305590](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305590%20Further%20issues%20on%20U2U%20relay.docx) Considerations on U2U relay (re)selection and Local ID assignment Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_SL\_relay\_enh-Core R2-2302791

[R2-2305618](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305618%20Discussion%20on%20U2U%20relay.docx) Discussion on U2U relay CMCC discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2305697](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305697%20Discussion%20on%20L2%20U2U%20relay%20v1.0.docx) Discussion on L2 U2U relay Lenovo discussion Rel-18

[R2-2305743](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305743%20QoS%20split%20and%20Bearer%20configuration.doc) QoS split and Bearer configuration Samsung discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2305762](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305762-Layer-2%20specific%20part%20on%20U2U%20Relay.docx) Layer-2 specific part on U2U Relay Qualcomm Incorporated discussion NR\_SL\_relay\_enh-Core

[R2-2305763](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305763-gNB%20involvement%20on%20U2U%20relay.docx) gNB involvement on U2U relay Qualcomm Incorporated discussion NR\_SL\_relay\_enh-Core

[R2-2305802](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305802%20SRAP%20design%20for%20U2U%20sidelink%20relay.doc) SRAP design for U2U Sidelink Relay Samsung R&D Institute UK discussion

[R2-2305874](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305874_U2U_relay.docx) Considerations for U2U L2 relay operations Kyocera discussion

[R2-2306125](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306125%20Discussion%20on%20aspects%20of%20AS%20layer%20configuration%20for%20L2%20U2U%20Relay.docx) Discussion on aspects of AS layer configuration for L2 U2U Relay ASUSTeK discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2306126](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306126%20Discussion%20on%20E2E%20PC5-RRC%20configurations.docx) Discussion on E2E PC5-RRC configurations ASUSTeK discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2306191](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306191%20Discussion%20on%20UE-to-UE%20relay.doc) Discussion on UE-to-UE relay Huawei, HiSilicon discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2306378](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306378%20Discussion%20on%20L2%20U2U%20Relay%20v01.docx) Discussion on L2 U2U Relay MediaTek Inc. discussion Rel-18

[R2-2306380](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306380-U2U.doc) Remaining issues for U2U relay Sharp discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2306427](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306427%20-%20U2U%20relay.docx) U2U Relay UE discovery / (re)selection, SRAP, QoS Handling Beijing Xiaomi Mobile Software discussion Rel-18 NR\_SL\_relay\_enh-Core

### 7.9.3 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.

Agenda item summary

[R2-2306559](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306559%20Summary%20of%20AI%207.9.3%20on%20service%20continuity.docx) Summary of AI 7.9.3 on service continuity (vivo) vivo discussion

The following tdocs will not be individually treated

[R2-2304681](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304681%20Draft%20LS%20to%20RAN3%20on%20Lossless%20Path%20Switching.docx) DRAFT LS for Draft LS to RAN3 on Lossless Path Switching for Sidelink Relay NEC LS out Rel-18 NR\_SL\_relay\_enh-Core To:RAN3

[R2-2304755](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304755%20-%20Discussion%20on%20lossless%20data%20forwarding%20for%20inter-gNB%20service%20continuity.docx) Discussion on lossless data forwarding for inter-gNB service continuity OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2305025](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305025%20Discussion%20on%20lossless%20path%20switching%20for%20Sidelink%20Relay.docx) Discussion on lossless path switching for Sidelink Relay CANON Research Centre France discussion Rel-18

[R2-2305044](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305044%20Further%20discussion%20on%20service%20continuity%20for%20SL%20relay.doc) Further discussion on service continuity for SL relay ZTE, Sanechips discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2305063](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305063%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

[R2-2305182](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305182%20%28R18%20SL%20Relay%20WI_AI793%20ServiceContinuity%29.doc) Remaining Issues on Service Continuity InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2305209](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305209-SL%20U2N%20relay%20for%20the%20service%20continuity%20enhancement.docx) SL U2N relay for the service continuity enhancement LG Electronics France discussion Rel-18

[R2-2305217](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305217.docx) Discussion on service continuity enhancement Xiaomi discussion

[R2-2305234](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305234_Discussion%20on%20lossless%20delivery%20solution%20for%20inter-gNB%20path%20switching.docx) Discussion on lossless delivery solution for inter-gNB path switching China Telecom discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2305247](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305247_Remaining%20issues%20on%20service%20continuity%20enhancement%20for%20L2%20U2N%20relay.docx) Remaining issues on service continuity enhancement for L2 U2N relay vivo discussion

[R2-2305280](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305280%20Further%20Consideration%20on%20Service%20Continuity%20Enhancements%20for%20L2%20U2N%20Relay.docx) Further Consideration on Service Continuity Enhancements for L2 U2N Relay CATT discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2305419](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305419%20DiscusionRSRP-LSs.docx) Discussion on reply LSs on RSRP issues (R1-2304211 / R2-2304617 and R4-2306366 / R2-2304637) Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_SL\_relay\_enh

[R2-2305420](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305420%20SL%20Relay%20Service%20Continuity.docx) Discussion on L2 U2N relay service continuity issues for inter-gNB path switch Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_SL\_relay\_enh

[R2-2305521](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305521.doc) Service continuity enhancements for UE sidelink relay Sony discussion Rel-18 NR\_SL\_relay\_enh

[R2-2305549](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305549_Discussion_on_Inter_gNB_Service_Continuity.docx) Discussion on Inter-gNB Service Continuity Ericsson España S.A. discussion Rel-18

[R2-2305552](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305552.doc) Service continuity enhancements support for L2 U2N relay Spreadtrum Communications discussion Rel-18

[R2-2305585](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305585_Service%20Continuity%20Enhancements%20and%20Lossless%20Data%20Delivery.docx) Service Continuity Enhancements and Lossless Data Delivery NEC Corporation discussion NR\_SL\_relay\_enh-Core

[R2-2305619](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305619%20Discussion%20on%20service%20continuity.docx) Discussion on service continuity CMCC discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2305761](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305761%20Lossless%20Inter-gNB%20path%20switching%20v1.0.docx) Lossless Inter-gNB path switching Lenovo discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2305764](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305764%20Evaluation%20and%20proposals%20on%20U3%20and%20U5%20_r2.docx) Evaluation and proposals on U3 and U5 Qualcomm Incorporated, OPPO, Xiaomi discussion NR\_SL\_relay\_enh-Core

[R2-2305979](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305979%20Discussion%20on%20service%20continuity.docx) Discussion on Service Continuity Huawei, HiSilicon discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2306260](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306260%20Remaining%20issues%20for%20service%20continuity.docx) Remaining issues for service continuity MediaTek Inc. discussion Rel-18

[R2-2306374](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306374%20Discussion%20on%20Event%20Z2.doc) Discussion on Event Z2 Samsung discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2306381](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306381-U2N-lossless.doc) remaining issues for i2x path switching with lossless delivery Sharp discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2306383](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306383-U2N_Discussion%20on%20remaining%20issues%20for%20path%20switching.doc) Discussion on remaining issues for path switching Sharp discussion Rel-18 NR\_SL\_relay\_enh-Core

### 7.9.4 Multi-path relaying

Mechanisms to support multi-path scenarios 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). This agenda item will include a rapporteur contribution summarising open issues from RAN2#121 (invited contribution not counted against the tdoc limit).

Agenda item summary and report of [AT122][402]

[R2-2306556](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306556%20-%20Summary%20of%20%5BPre122%5D%5B403%5D%5BRelay%5D%20Summary%20of%20AI%207.9.4%20on%20multi-path%20relay%20%28OPPO%29.docx) [Pre122][403][Relay] Summary of AI 7.9.4 on multi-path relay (OPPO) OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core

* [AT122][402][Relay] Multi-path relay summary proposals (OPPO)

 Scope: Discuss and gauge support on the proposals in R2-2306556, converge on easily agreeable parts, and identify discussion points for the online session on Tuesday 2023-05-23.

 Intended outcome: Summary to online session in R2-2306672

 Deadline: Tuesday 2023-05-23 1100 KST

The following tdocs will not be individually treated

[R2-2304664](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304664%20-%20Discussion%20on%20multi-path%20Relay_V01.docx) Discussion on multi-path SL relay OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2304958](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304958%20Discussions%20on%20Multi-path_v2.docx) Discussions on multi-path Fujitsu discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2305008](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305008_SLRelay_S1%262_v2.doc) Discussion sidelink relay enhancement for scenario 1&2 Samsung discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2305045](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305045%20Discussion%20on%20the%20RAN2%20impacts%20of%20multi-path%20relaying%20with%20CUDU%20split%20architecture.docx) Discussion on the RAN2 impacts of multi-path relaying with CU/DU split architecture ZTE, OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2305046](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305046%20Further%20discussion%20on%20the%20support%20of%20multi-path%20relaying.docx) Further discussion on the support of multi-path relaying ZTE, Sanechips discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2305064](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305064%20Discussion%20on%20control%20plan%20design%20for%20Multi-path.doc) Discussion on Multi-path Relay Apple discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2305183](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305183%20%28R18%20SL%20Relay%20WI_AI794%20MultipathAspects%29.doc) Design Aspects for Multi-path InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2305218](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305218.docx) Discussion on multi-path Xiaomi discussion

[R2-2305232](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305232%20Discussion%20on%20the%20mode%201%20RA%20issue%20under%20multi-path%20scenario.docx) Discussion on the mode 1 RA issue under multi-path scenario NEC, Nokia,OPPO,ZTE,Huawei, HiSilicon, Sharp, Samsung, Philips, MediaTek discussion NR\_SL\_relay\_enh-Core

[R2-2305235](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305235%20Discussion%20on%20remaining%20issues%20of%20multi-path%20relaying.docx) Discussion on remaining issues of multi-path relaying China Telecom discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2305248](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305248_Remaining%20Issues%20for%20Multi-path%20Scenario%201%202.docx) Remaining Issues for Multi-path Scenario-1 and Scenario-2 vivo discussion

[R2-2305281](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305281_Discussion%20on%20Multi-path%20Scenario1.docx) Discussion on Multi-path Scenario 1 CATT discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2305282](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305282_Leftover%20issues%20on%20Multi-path%20scenario2.docx) Leftover issues on Multi-path scenario2 CATT discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2305522](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305522.doc) Multi-path relaying discussion Sony discussion Rel-18 NR\_SL\_relay\_enh

[R2-2305550](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305550_Discussion_on_multipath%20relays.docx) Discussion on Multipath Relays Ericsson España S.A. discussion Rel-18

[R2-2305553](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305553.doc) Discussion on multi-path relaying Spreadtrum Communications discussion Rel-18

[R2-2305586](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305586_Discussion%20on%20Multi-path%20Relaying.docx) Discussion on Multi-path Relaying NEC Corporation discussion NR\_SL\_relay\_enh-Core

[R2-2305620](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305620%20Discussion%20on%20multi-path%20scenario%201.docx) Discussion on multi-path scenario 1 CMCC discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2305621](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305621%20Considerations%20on%20multi-path%20scenario%202.docx) Considerations on multi-path scenario 2 CMCC discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2305698](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305698%20Procedure%20for%20second%20path%20addition%20v1.0.docx) Procedure for second path addition Lenovo discussion Rel-18

[R2-2305765](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305765-Address%20contravercial%20issues%20for%20MP%20relay.docx) Address controversial issues on multi-path relay Qualcomm Incorporated discussion NR\_SL\_relay\_enh-Core

[R2-2305873](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305873_multipath_relay.docx) Considerations for multipath relay operations for Scenario 1 Kyocera discussion

[R2-2305945](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305945%20Discussion%20on%20Multi-path%20relaying.docx) Discussion on Multi-path relaying Lenovo discussion NR\_SL\_relay\_enh-Core

[R2-2306127](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306127%20Resource%20allocation%20and%20BSR%20reporting%20for%20multi-path.docx) Resource allocation and BSR reporting for multi-path ASUSTeK discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2306192](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306192%20Remaining%20issues%20on%20multi-path%20operation.docx) Remaining issues on multi-path operation Huawei, HiSilicon discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2306310](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306310_Discussion%20on%20multi-path%20scenario%201_III.docx) Discussion on multi-path scenario 1 III discussion NR\_SL\_relay\_enh-Core

[R2-2306313](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306313%20Multipath%20SL%20relay.docx) Multipath SL relay Nokia, Nokia Shanghai Bell discussion

[R2-2306355](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306355%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

[R2-2306382](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306382-MP.doc) Remaining issues for multi-path relay Sharp discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2306445](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306445%20Discussion%20on%20Multipath%20v01.docx) Discussion on Multipath MediaTek Inc. discussion Rel-18

[R2-2306497](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306497_SL-MP-Relaying_ThroughputEnhancements.docx) About Throughput Enhancements in Sidelink Multi-Path Relaying Fraunhofer IIS, Fraunhofer HHI discussion Rel-18 NR\_SL\_relay\_enh

### 7.9.5 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.

[R2-2304756](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304756%20-%20Discussion%20on%20DRX%20for%20L2%20U2N%20relay.docx) Discussion on DRX for L2 U2N relay OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2305065](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305065%20Discussion%20on%20SL-DRX.doc) Discussion on SL DRX for L2 UE-to-NW relay Apple discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2305219](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305219.docx) Discussion on SL DRX in U2N relay Xiaomi discussion

[R2-2305592](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305592%20Considerations%20on%20paging%20for%20sidelink%20relay.docx) Considerations on paging for sidelink relay Nokia, Nokia Shanghai Bell discussion NR\_SL\_relay\_enh-Core

[R2-2306193](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306193%20Left%20issues%20on%20sidelink%20DRX%20for%20L2%20U2N%20relay.doc) Left issues on sidelink DRX for L2 U2N relay Huawei, HiSilicon discussion Rel-18 NR\_SL\_relay\_enh-Core

## 7.24 NR TEI18

Specific items may be allocated to a breakout session for treatment.

Time budget: 1 TU

### 7.24.1 TEI proposals by Other Groups

Items initiated by other groups that is/has been communicated by LS, where the other group indicate this is TEI18. (Specific other-group-WIs should use the R18 Other Agenda Item below).

Incoming LSs (note: R2-2304609 was intended to be noted at RAN2#121bis-e)

[R2-2304609](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304609_R1-2302201.docx) LS on 1-symbol PRS (R1-2302201; contact: ZTE) RAN1 LS in Rel-18 TEI18 To:RAN2, RAN3 Cc:RAN4

[R2-2304623](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304623_R3-231935.doc) Reply LS on 1-symbol PRS (R3-231935; contact: ZTE) RAN3 LS in Rel-18 TEI18 To:RAN1 Cc:RAN2

1-symbol PRS

[R2-2306079](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306079%20Introduction%20of%201-symbol%20PRS%20in%2038.331%5B1symbol_PRS%5D.docx) Introduction of 1-symbol PRS in 38.331[1symbol\_PRS] ZTE Corporation CR Rel-18 38.331 17.4.0 4014 1 B TEI18 R2-2303498

[R2-2306080](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306080%20Introduction%20of%201-symbol%20PRS%20in%2037.355%5B1symbol_PRS%5D.docx) Introduction of 1-symbol PRS in 37.355[1symbol\_PRS] ZTE Corporation CR Rel-18 37.355 17.4.0 0437 1 B TEI18 R2-2303499

[R2-2306081](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306081%20Introduction%20of%20UE%20capability%20of%201-symbol%20PRS%20in%2037.355%5B1symbol_PRS%5D.docx) Introduction of UE capability of 1-symbol PRS in 37.355[1symbol\_PRS] ZTE Corporation CR Rel-18 37.355 17.4.0 0453 - B TEI18

[R2-2306082](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306082%20Introduction%20of%20UE%20capability%20of%201-symbol%20PRS%20in%2038.331%5B1symbol_PRS%5D.docx) Introduction of UE capability of 1-symbol PRS in 38.331[1symbol\_PRS] ZTE Corporation CR Rel-18 38.331 17.4.0 4128 - B TEI18

[R2-2306083](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306083%20Introduction%20of%20UE%20capability%20of%201-symbol%20PRS%20in%2038.306%5B1symbol_PRS%5D.docx) Introduction of UE capability of 1-symbol PRS in 38.306[1symbol\_PRS] ZTE Corporation CR Rel-18 38.306 17.4.0 0923 - B TEI18

* [AT122][403][POS] 1-symbol PRS CR check (ZTE)

 Scope: Check the CRs in R2-2306079 / R2-2306080 / R2-2306081 / R2-2306082 / R2-2306083

 Intended outcome: CRs agreeable in principle

 Deadline: Wednesday 2023-05-24 2000 KST

### 7.24.2 TEI proposals by RAN2

Items initiated in RAN2.

Tdoc limitation: 1 tdoc, limitation only applicable for non-previously-agreed-to-be-considered TEI proposals.

Emergency cause value for relay

[R2-2304759](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304759%20-%20Discussion%20on%20emergency%20cause%20value%20for%20SL%20Relay.docx) Discussion on emergency cause value for SL Relay OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core, TEI18

GNSS LOS/NLOS

[R2-2304838](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304838.docx) GNSS LOS/NLOS assistance information, stage 3 details and corrections Vodafone, Spirent, Ericsson, Telecom Italia discussion Rel-18

* Revised in R2-2306534

[R2-2306534](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306534.docx) GNSS LOS/NLOS assistance information, stage 3 details and corrections Vodafone, Spirent, Ericsson, Telecom Italia discussion Rel-18

[R2-2305474](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305474.docx) GNSS LOS/NLOS assistance information [GNSS LOS/NLOS] Vodafone, Spirent, Ericsson, Telecom Italia CR Rel-18 37.355 17.4.0 0446 - B TEI18

* Revised in R2-2306537

[R2-2306537](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306537.docx) GNSS LOS/NLOS assistance information [GNSS LOS/NLOS] Vodafone, Spirent, Ericsson, Telecom Italia, Samsung CR Rel-18 37.355 17.4.0 0446 1 B TEI18

[R2-2305481](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305481.docx) GNSS LOS/NLOS posSIB broadcast assistance information [GNSS LOS/NLOS] Vodafone, Spirent, Ericsson, Telecom Italia CR Rel-18 38.331 17.4.0 4109 - B TEI18

* Revised in R2-2306536

[R2-2306536](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306536.docx) GNSS LOS/NLOS posSIB broadcast assistance information [GNSS LOS/NLOS] Vodafone, Spirent, Ericsson, Telecom Italia, Samsung CR Rel-18 38.331 17.4.0 4109 1 B TEI18

[R2-2305490](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305490.docx) GNSS LOS/NLOS posSIB broadcast assistance information [GNSS LOS/NLOS] Vodafone, Spirent, Ericsson, Telecom Italia CR Rel-18 36.331 17.4.0 4931 - B TEI18

* Revised in R2-2306535

[R2-2306535](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306535.docx) GNSS LOS/NLOS posSIB broadcast assistance information [GNSS LOS/NLOS] Vodafone, Spirent, Ericsson, Telecom Italia, Samsung CR Rel-18 36.331 17.4.0 4931 1 B TEI18

* [AT122][404][POS] GNSS LOS/NLOS CR check (Vodafone)

 Scope: Check the CRs in R2-2306535 / R2-2306536 / R2-2306537, taking into account the exposition in R2-2306534.

 Intended outcome: CRs agreeable in principle

 Deadline: Wednesday 2023-05-24 2000 KST

MUSIM cause value for relay

[R2-2304974](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2304974_Discussion%20on%20MUSIM%20paging%20cause%20forwarding.docx) Discussion on MUSIM paging cause forwarding vivo discussion

[R2-2305014](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305014_Paging%20Cause%20forwarding.doc) Paging Cause forwarding Samsung Electronics Co., Ltd discussion Rel-18 TEI18

posSIB reception time

[R2-2305216](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305216.doc) Discussion on how to support posSIB(s) forwarding Xiaomi discussion

Yaw and APC

[R2-2305265](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305265%20-%20Yaw%20and%20APC%20enhancements.docx) Discussion on Yaw and APC enhancements Swift Navigation discussion

* [AT122][405][POS] Yaw and APC in Rel-18 (Swift)

 Scope: Check the proposals in R2-2305265 and adapt the TPs into CRs if agreeable.

 Intended outcome: Report to CB session in R2-2306673 and potentially CRs agreeable in principle

 Deadline: Wednesday 2023-05-24 2000 KST

Positioning for remote UEs

[R2-2305850](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305850.docx) Positioning and posSIB forwarding for remote UEs MediaTek Inc., CATT, Huawei, HiSilicon, Qualcomm Incorporated, Xiaomi, Intel Corporation, vivo discussion Rel-18 TEI18

[R2-2305852](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305852.DOCX) Positioning restrictions for UE-to-network remote UEs [PosL2RemoteUE] MediaTek Inc., CATT, Huawei, HiSilicon, Qualcomm Incorporated, Xiaomi, Intel Corporation, vivo, Ericsson CR Rel-18 38.305 17.4.0 0134 1 C TEI18 R2-2304318

[R2-2305854](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305854.DOCX) Support positioning of L2 UE-to-network remote UEs [PosL2RemoteUE] MediaTek Inc., CATT, Huawei, HiSilicon, Qualcomm Incorporated, Xiaomi, Intel Corporation, vivo, Ericsson CR Rel-18 37.355 17.4.0 0444 1 C TEI18 R2-2304319

[R2-2305857](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305857.DOCX) Downlink positioning support and posSIB request for L2 UE-to-network remote UE [PosL2RemoteUE] MediaTek Inc., CATT, Huawei, HiSilicon, Qualcomm Incorporated, Xiaomi, Intel Corporation, vivo, Ericsson CR Rel-18 38.331 17.4.0 4066 1 C TEI18 R2-2304320

[R2-2305859](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305859.DOCX) Capabilities of L2 UE-to-network relay UEs for positioning [PosL2RemoteUE] MediaTek Inc., CATT, Huawei, HiSilicon, Qualcomm Incorporated, Xiaomi, Intel Corporation, vivo, Ericsson CR Rel-18 38.306 17.4.0 0907 1 C TEI18 R2-2304454

[R2-2305865](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305865.docx) Downlink positioning performance results for remote UEs out of coverage MediaTek Inc. discussion Rel-18 TEI18

[R2-2306019](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306019%20Relay.docx) Relay based Positioning posSIB forwarding Ericsson discussion Rel-18

* [AT122][406][POS] Positioning for remote UEs CR check (CATT)

 Scope: Check the CRs in R2-2305852 / R2-2305854 / R2-2305857 / R2-2305859 in light of the exposition in R2-2305850 / R2-2305865, and evaluate the proposals in R2-2306019.

 Intended outcome: Report to CB session in R2-2306674 and CRs agreeable in principle

 Deadline: Wednesday 2023-05-24 2000 KST

Local cartesian coordinates

[R2-2305889](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305889_%28local%20coordinates%29.docx) Support of Local Cartesian Coordinates in LPP Qualcomm Incorporated discussion

[R2-2305891](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2305891_%28LPP%20CR%20on%20local%20coordinates%29_v01.docx) Support of Local Cartesian Coordinates in LPP [PosLocalCoords] Qualcomm Incorporated CR Rel-18 37.355 17.4.0 0447 - C TEI18

Multiple QoS for positioning

[R2-2306221](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306221%20%287.24.2%29%20multiple%20QoS%20handling%20in%20POS.docx) Introduction of ‘multiple QoS’ class in positioning Samsung R&D Institute UK, Ericsson, Huawei, HiSilicon discussion

Relay bit rate recommendation

[R2-2306516](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202305%20-%20RAN2_122%2C%20Incheon%5CExtracts%5CR2-2306516_Considerations%20on%20voice%20and%20video%20support%20for%20Relays.docx) Considerations on voice and video support for Relays Philips International B.V., MediaTek, Vivo, FirstNet, KPN, TNO, Kyocera discussion Rel-18 NR\_SL\_relay-Core R2-2200413

Withdrawn/Not available

R2-2306146 Introduction of ‘multiple QoS’ class in positioning Samsung R&D Institute UK discussion Withdrawn

## 7.25 R18 Other

Specific items may be allocated to a breakout session for treatment.

Impacts from Other RAN WGs and TSGs that has no separate TU budget in RAN2. LS ins for Rel-18 specific WIs/SIs that has no RAN WI.

Time budget: 2 TU

Tdoc Limitation: -

### 7.25.3 Other

RAN3, SA2, SA3, CT1 led items and others, e.g. eNPN

R2-2305345 Draft CR of new location information type for PRU vivo draftCR Rel-18 37.355 17.4.0 5G\_eLCS\_Ph3

R2-2306024 On the Positioning Reference Units aspects Ericsson discussion Rel-18