3GPP TSG-RAN WG2 Meeting #124 R2-23xxxxx

Chicago, Illinois, USA, 13-17 November 2023

Source: Session Chair (MediaTek)

Title: Report from session on positioning and sidelink relay

# 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.

# 5 NR Rel-15 and Rel-16

Essential corrections only.

Tdoc Limitation: 5 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](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_85/Docs/RP-191971.zip))

(NR\_pos-Core; leading WG: RAN1; REL-16; started: Mar 19; target; Jun 20; WID: [RP-200218](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_87e/Docs/RP-200218.zip)).

(NR TEI16 Positioning)

### 5.3.0 In Principle Agreed CRs

[R2-2312270](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312270%20Correction%20to%2038.331%20on%20GNSS-ID%20R16_final.docx) Correction to 38.331 on GNSS-ID Huawei, HiSilicon CR Rel-16 38.331 16.14.0 4417 - F NR\_pos-Core

[R2-2312271](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312271%20Correction%20to%2038.331%20on%20GNSS-ID%20R17_final.docx) Correction to 38.331 on GNSS-ID Huawei, HiSilicon CR Rel-17 38.331 17.6.0 4418 - A NR\_pos-Core

### 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.

[R2-2312306](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312306-38305-multi-rtt-sequence-correction.docx) Sequence of Procedure for Multi-RTT positioning correction Apple CR Rel-16 38.305 16.9.0 0148 - F NR\_pos-Core

[R2-2312307](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312307-38305-multi-rtt-sequence-correction-r17.docx) Sequence of Procedure for Multi-RTT positioning correction Apple CR Rel-17 38.305 17.6.0 0149 - A NR\_pos-Core

### 5.3.2 Stage 3 corrections (RRC/LPP/MAC/capabilities)

[R2-2313241](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313241%20REL-16%20CR%2037355%205_3_2%20Positioning%20Frequency%20Layer.docx) Definition of Positioning Frequency Layer Nokia, Nokia Shanghai Bell CR Rel-16 37.355 16.12.0 0483 - F NR\_pos-Core

# 6 NR Rel-17

Essential corrections only. Editorial/clarifications should be sent to be reviewed and approved by spec rapporteurs prior to submission. Editiorials should only be submitted by spec rapporteurs.

## 6.2 NR Sidelink relay

(NR\_SL\_Relay-Core; leading WG: RAN2; REL-17; WID: [RP-212601](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_93e/Docs/RP-212601.zip))

Tdoc Limitation: 1 tdoc

### 6.2.0 In Principle Agreed CRs

[R2-2311885](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311885_38304_CR0353_(REL-17)%20-%20Correction%20on%20SIB%20and%20Preconfiguration%20applicability.docx) Correction on SIB/Preconfiguration applicability OPPO, ZTE CR Rel-17 38.304 17.6.0 0353 2 F NR\_SL\_enh-Core, NR\_SL\_relay-Core R2-2311379

[R2-2312688](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\38331_CR4389r1_(Rel-17)_R2-2312688%20RRC%20corrections%20for%20SL%20relay.docx) RRC corrections for SL relay Huawei, HiSilicon, CATT, Apple, ZTE, China Telecom, Philips International B.V., Lenovo, Xiaomi CR Rel-17 38.331 17.6.0 4389 1 F NR\_SL\_relay-Core R2-2311380

### 6.2.1 Other

A single CR per TS 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).

[R2-2312342](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312342%2038331_R17_relay_Correction_destinaiton_list%20_r1.docx) Correction on the SL destinaitons in SUI message Apple, Huawei, HiSilicon CR Rel-17 38.331 17.6.0 4424 - F NR\_SL\_relay-Core

[R2-2312614](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312614%20Applicability%20of%20SIB12%20for%20remoteUE.docx) Considerations on applicability of SIB12 received via relay connection Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SL\_relay-Core

[R2-2312624](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312624.docx) Correction on pre-configuration usage Xiaomi Technology CR Rel-17 38.304 17.6.0 0360 - F NR\_SL\_relay\_enh-Core

[R2-2313099](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Docs\R2-2313099.zip) Correction on SL relay RRC Philips International B.V. CR Rel-17 38.331 17.6.0 4466 - F NR\_SL\_relay-Core

[R2-2313354](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\38351_CR0028_(Rel-17)_R2-2313354%20Correction%20on%20SRAP%20for%20sidelink%20relay.docx) Correction on SRAP for sidelink relay ZTE, Sanechips CR Rel-17 38.351 17.6.0 0028 - F NR\_SL\_relay-Core

[R2-2313458](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313458%20-%2038.300_CR0744_Rel17_Correction%20on%20the%20SidelinkUEInformationNR%20message.docx) Correction on the SidelinkUEInformationNR message Ericsson, Apple, Vivo CR Rel-17 38.300 17.6.0 0744 - F NR\_SL\_relay-Core

[R2-2313477](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313477-Clarification%20on%20preconfiguration%20in%20U2N%20relay.docx) Clarification on preconfiguration usage in U2N relay Qualcomm Incorporated discussion Rel-17 NR\_SL\_relay-Core

[R2-2313513](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\38304_CR0368_(Rel-17)_R2-2313513%20Clarification%20on%20the%20case%20SL%20frequency%20is%20not%20included%20in%20SIB12.docx) Clarification on the case SL frequency is not included in SIB12 Huawei, HiSilicon CR Rel-17 38.304 17.6.0 0368 - F NR\_SL\_relay-Core

Not available/Withdrawn

R2-2312932 Correction on the SidelinkUEInformationNR message Ericsson, Apple, Vivo CR Rel-17 38.300 17.6.0 0719 1 F NR\_SL\_relay-Core R2-2311220 Withdrawn

## 6.4 NR positioning enhancements

(NR\_pos\_enh-Core; leading WG: RAN1; REL-17; WID: [RP-210903](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_91e/Docs/RP-210903.zip))

Tdoc Limitation: 1 tdoc

### 6.4.0 In Principle Agreed CRs

[R2-2311868](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311868%20Clarification%20on%20the%20field%20description%20of%20dl-prs-ResourceSetPeriodicityReq.docx) Clarification on the field description of dl-prs-ResourceSetPeriodicityReq vivo CR Rel-17 37.355 17.6.0 0477 - F NR\_pos\_enh-Core Revised

[R2-2312445](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312445%20Correction%20on%20LocationMeasurementIndication%20procedure%20for%20positioning.docx) Correction on LocationMeasurementIndication procedure for positioning ZTE Corporation, Ericsson CR Rel-17 38.331 17.6.0 4336 2 F NR\_pos\_enh-Core R2-2311377

[R2-2313418](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313418%20HAGNSS.docx) Field description correction for HA-GNSS metrics Ericsson CR Rel-17 37.355 17.6.0 0474 2 F NR\_pos\_enh-Core R2-2311378

[R2-2313538](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313538%20Clarification%20on%20the%20field%20description%20of%20dl-prs-ResourceSetPeriodicityReq.docx) Clarification on the field description of dl-prs-ResourceSetPeriodicityReq vivo CR Rel-17 37.355 17.6.0 0477 1 F NR\_pos\_enh-Core R2-2311868

Not available/Withdrawn

R2-2312935 Field description correction for HA-GNSS metrics Ericsson CR Rel-17 37.355 17.6.0 0479 - F NR\_pos\_enh-Core Withdrawn

### 6.4.1 Other

A single CR per TS (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).

Including outcome of [Post123bis][402][POS] BDS B1C corrections (CATT)

Incoming LS with “take into account” action

[R2-2311718](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311718_R1-2310675.doc) Reply LS on support of multiple location estimate instances in a single measurement (R1-2310675; contact: ZTE) RAN1 LS in Rel-17 NR\_pos\_enh-Core To:RAN2

Additional incoming LS

[R2-2311703](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311703_C4-234472.docx) LS Out Sub One Second Report Period for Deferred Location over SBI (C4-234472; contact: Ericsson) CT4 LS in Rel-17 5G\_eLCS\_ph2 To:RAN2, RAN3

Email discussion report and related CRs

[R2-2313344](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313344%20Report%20of%20%5bPost123bis%5d%5b402%5d%5bPOS%5d%20BDS%20B1C%20corrections%20(CATT).docx) Report of [Post123bis][402][POS] BDS B1C corrections (CATT) CATT discussion Rel-17 NR\_pos\_enh-Core

[R2-2313342](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\38331_CR4489_(Rel-17)-R2-2313342.docx) Correction on transmission of SSR Assistance Data based on BDS B1C CATT, CAICT, CMCC, China Telecom, China Unicom, Huawei, ZTE Corporation, MediaTek Inc., OPPO, xiaomi, vivo, Spreadtrum CR Rel-17 38.331 17.6.0 4489 - F NR\_pos\_enh-Core

[R2-2313343](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\37355_CR0485_(Rel-17)-R2-2313343.docx) Correction on transmission of SSR Assistance Data based on BDS B1C CATT, CAICT, CMCC, China Telecom, China Unicom, Huawei, ZTE Corporation, MediaTek Inc., OPPO, xiaomi, vivo, Spreadtrum CR Rel-17 37.355 17.6.0 0485 - F NR\_pos\_enh-Core

[R2-2313504](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\36331_CR4979_(Rel-17)-R2-2313504.docx) Correction on transmission of SSR Assistance Data based on BDS B1C CATT, CAICT, CMCC, China Telecom, China Unicom, Huawei, ZTE Corporation, MediaTek Inc., OPPO, xiaomi, vivo, Spreadtrum CR Rel-17 36.331 17.6.0 4979 - F NR\_pos\_enh-Core

Batch reporting

[R2-2312269](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312269%20Correction%20to%20UE%20capability%20for%20batch%20reporting.docx) Correction to UE capability for batch reporitng Huawei, HiSilicon CR Rel-17 37.355 17.6.0 0478 - F NR\_pos\_enh-Core

[R2-2313361](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313361%20capability.docx) Correction to UE capability for batch reporitng Ericsson CR Rel-17 37.355 17.6.0 0486 - F NR\_pos\_enh-Core

Other CRs

[R2-2313060](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313060.docx) Missing correction for SBAS ID presence in Rel-17 SI scheduling MediaTek Inc., Ericsson CR Rel-17 38.331 17.6.0 4462 - F NR\_pos\_enh-Core

[R2-2313100](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Docs\R2-2313100.zip) Correction on posSIB(s) acquisition Philips International B.V. CR Rel-17 38.331 17.6.0 4467 - F NR\_pos\_enh-Core

[R2-2313242](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313242%20REL-17%20CR%2037355%206_4_1%20Positioning%20Frequency%20Layer.docx) Definition of Positioning Frequency Layer Nokia, Nokia Shanghai Bell CR Rel-17 37.355 17.6.0 0484 - F NR\_pos\_enh-Core

[R2-2313555](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313555_(TEG%20Capability).docx) Correction to UE TEG Capability Qualcomm Incorporated CR Rel-17 37.355 17.6.0 0475 1 F NR\_pos\_enh-Core R2-2310909

# 7 Rel-18

## 7.2 Expanded and improved NR positioning

(NR\_pos\_enh2; leading WG: RAN1; REL-18; WID: [RP-232670](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_101/Docs/RP-232670.zip))

Time budget: 2 TU

Tdoc Limitation: 4 tdocs

### 7.2.1 Organizational

Including incoming LSs and rapporteur inputs.

Including, for each affected spec:

* Updated running CR
* List of open issues to be addressed by company contributions
* (where applicable) CR rapporteur input with proposals for stage-3 issues (e.g., signalling details, parameter values/ranges) where company contributrions should be avoided

Including report of [Post123bis][407][POS] Rel-18 positioning capabilities (Xiaomi)

Incoming LSs with RAN2 in Cc:

[R2-2311707](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311707_R1-2310478.doc) LS on PRS bandwidth aggregation (R1-2310478; contact: ZTE) RAN1 LS in Rel-18 NR\_pos\_enh2 To:RAN4 Cc:RAN2, RAN3

[R2-2311734](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Docs\R2-2311734.zip) Reply LS on Authorization and Provisioning for Ranging/SL positioning service (R3-235933; contact: Xiaomi) RAN3 LS in Rel-18 Ranging\_SL, NR\_pos\_enh2 To:SA2 Cc:RAN2, CT4

[R2-2311744](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311744_R4-2317389.docx) Reply LS to RAN1 on SRS and PRS bandwidth aggregation for positioning (R4-2317389; contact: ZTE) RAN4 LS in Rel-18 NR\_pos\_enh2 To:RAN1 Cc:RAN2, RAN3

Incoming LSs with “take into account” action only and no draft reply

[R2-2311745](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311745_R4-2317390.docx) LS on report mapping for positioning measurements with PRS\_SRS bandwidth aggregation (R4-2317390; contact: Ericsson) RAN4 LS in Rel-18 NR\_pos\_enh2-Core To:RAN2, RAN3 Cc:RAN1

[R2-2311746](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311746_R4-2317391.docx) LS on SL positioning and carrier phase positioning measurements (R4-2317391; contact: CATT) RAN4 LS in Rel-18 NR\_pos\_enh2 To:RAN1, RAN2, RAN3

Other incoming LSs and related documents

[R2-2311704](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311704_R1-2310402.docx) Reply LS on SL positioning MAC agreements (R1-2310402; contact: Huawei) RAN1 LS in Rel-18 FS\_eLCS\_Ph3, NR\_pos\_enh2 To:RAN2 Cc:SA2

[R2-2312265](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312265%20Draft%20reply%20LS%20on%20L1%20priority.doc) Draft reply LS on L1 priority Huawei, HiSilicon LS out Rel-18 NR\_pos\_enh2 To:RAN1

[R2-2311765](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311765_S2-2311896.docx) Reply LS to Reply LS to SA2 on assistance information provided to UE (S2-2311896; contact: Xiaomi) SA2 LS in Rel-18 Ranging\_SL To:RAN2, CT1, CT4

[R2-2313597](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Docs\R2-2313597.zip) Reply LS on security aspects for Ranging/Sidelink Positioning (S3-235078; contact: Xiaomi) SA3 LSin Rel-18 Ranging\_SL To:SA2, RAN2

Open issues list for WI

[R2-2313111](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313111%20Open%20issue%20list%20for%20Rel-18%20positioning%20WI.docx) Open issues list on Rel-18 positioning WI CATT,Intel Corporation, Ericsson, Huawei, Qualcomm Incorporated, xiaomi, discussion Rel-18 NR\_pos\_enh2

Running CRs: stage 2

[R2-2311860](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311860%20Introduction%20of%20sidelink%20positioning%20in%2038300.docx) Introduction of sidelink positioning in 38300 vivo CR Rel-18 38.300 17.6.0 0722 - B FS\_NR\_pos\_enh2 Revised

* Revised in R2-2313543

[R2-2313543](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313543%20Introduction%20of%20sidelink%20positioning%20in%2038300.docx) Introduction of sidelink positioning in 38300 vivo CR Rel-18 38.300 17.6.0 0722 1 B FS\_NR\_pos\_enh2 R2-2311860

[R2-2312787](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312787_(Summary%20of%20%5bPost123bis%5d%5b411%5d%5bPOS%5d).docx) Summary of [Post123bis][411][POS] Rel-18 positioning 38.305 CR (Qualcomm) Qualcomm Incorporated discussion

[R2-2312786](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312786_(Stage%202%20CR%20NR_pos_enh2)_v06.docx) Introduction of 'Expanded and improved NR positioning' Qualcomm Incorporated (Rapporteur) CR Rel-18 38.305 17.6.0 0150 - B NR\_pos\_enh2

Running CRs: MAC

[R2-2312259](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312259%20Summary%20of%20email%20discussion%20%5bPost123bis%5d%5b409%5d%5bPOS%5d%20Rel-18%20positioning%20MAC%20CRs%20(Huawei).DOCX) Summary of email discussion [Post123bis][409][POS] Rel-18 positioning MAC CRs (Huawei) Huawei, HiSilicon discussion Rel-18 NR\_pos\_enh2

[R2-2312258](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312258%20Summary%20of%20discussion%20on%20proposed%20WF%20for%20R18%20MAC%20spec%20drafting.docx) Summary of discussion on proposed WF for R18 MAC spec drafting Huawei, HiSilicon discussion Rel-18 NR\_pos\_enh2

[R2-2312260](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312260%20Draft%20running%20MAC%20CR%20for%20CA%20positioning.docx) Draft running MAC CR for CA positioning Huawei, HiSilicon draftCR Rel-18 38.321 17.6.0 NR\_pos\_enh2

[R2-2312261](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312261%20Draft%20running%20MAC%20CR%20for%20carrier%20phase%20positioning.docx) Draft running MAC CR for carrier phase positioning Huawei, HiSilicon draftCR Rel-18 38.321 17.6.0 NR\_pos\_enh2

[R2-2312262](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312262%20Draft%20running%20MAC%20CR%20for%20LPHAP.docx) Draft running MAC CR for LPHAP Huawei, HiSilicon draftCR Rel-18 38.321 17.6.0 NR\_pos\_enh2

[R2-2312263](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312263%20Draft%20running%20MAC%20CR%20for%20REDCAP%20positioning.docx) Draft running MAC CR for REDCAP positioning Huawei, HiSilicon draftCR Rel-18 38.321 17.6.0 NR\_pos\_enh2

[R2-2312264](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312264%20Draft%20running%20MAC%20CR%20for%20sidelink%20positioning.docx) Draft running MAC CR for sidelink positioning Huawei, HiSilicon draftCR Rel-18 38.321 17.6.0 NR\_pos\_enh2

[R2-2312257](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312257%20Summary%20of%20open%20issue%20list%20for%20MAC%20issues%20for%20R18%20positioning.docx) Summary of open issue list for MAC issues for R18 positioning Huawei, HiSilicon discussion Rel-18 NR\_pos\_enh2

[R2-2312256](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312256%20Introduction%20of%20R18%20positioning%20to%20MAC%20spec.docx) Introduction of R18 positioning to MAC spec Huawei, HiSilicon CR Rel-18 38.321 17.6.0 1700 - B NR\_pos\_enh2

Running CRs: RRC

[R2-2313031](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313031%20RRCSummaryReport.docx) [Post123bis][410][POS] Rel-18 positioning RRC CR (Ericsson) Ericsson report Rel-18

[R2-2312998](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312998%20RedCap.docx) RRC Positioning RedCap Changes Ericsson draftCR Rel-18 38.331 17.6.0 B NR\_pos\_enh2

[R2-2312999](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312999%20SL.docx) RRC Positioning Sidelink Changes Ericsson draftCR Rel-18 38.331 17.6.0 B NR\_pos\_enh2

[R2-2313000](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313000%20BWA.docx) RRC Positioning Bandwidth Aggregation Changes Ericsson draftCR Rel-18 38.331 17.6.0 B NR\_pos\_enh2

[R2-2313446](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313446%20CPP.docx) Rapporteur CR for CPP Positioning RRC Changes Ericsson draftCR Rel-18 38.331 17.6.0 B NR\_pos\_enh2

[R2-2312941](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312941%20MainLPHAP.docx) Introduction of NR Positioning Ericsson CR Rel-18 38.331 17.6.0 4454 - B NR\_pos\_enh2

Running CRs: LPP

[R2-2313112](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313112%20Report%20of%20%5bPost123bis%5d%5b408%5d%5bPOS%5d%20Rel-18%20LPP%20running%20CRs%20(CATT).docx) Report of [Post123bis][408][POS] Rel-18 LPP running CRs (CATT) CATT discussion Rel-18 NR\_pos\_enh2

[R2-2313113](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313113%20Introduction%20of%20RAT-dependent%20integrity.docx) Introduction of RAT-dependent integrity CATT draftCR Rel-18 37.355 17.6.0 NR\_pos\_enh2

[R2-2313114](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313114%20Introduction%20of%20bandwidth%20aggregation.docx) Introduction of bandwidth aggregation CATT draftCR Rel-18 37.355 17.6.0 NR\_pos\_enh2

[R2-2313115](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313115%20Introduction%20of%20Carrier%20Phase%20positioning.docx) Introduction of Carrier Phase Positioning CATT draftCR Rel-18 37.355 17.6.0 NR\_pos\_enh2

[R2-2313116](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313116%20Introduction%20of%20LPHAP%20and%20Redcap%20positioning.docx) Introduction of LPHAP and Redcap positioning CATT draftCR Rel-18 37.355 17.6.0 NR\_pos\_enh2

[R2-2313117](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313117%20Introduction%20of%20Expanded%20and%20improved%20NR%20positioning.docx) Introduction of Expanded and improved NR positioning CATT CR Rel-18 37.355 17.6.0 0481 - B NR\_pos\_enh2

CRs to specs not currently in WID

[R2-2312267](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312267%20Introduction%20of%20R18%20positioning%20to%20IDLE%20mode%20procedure.docx) Introduction of R18 positioning to RRC\_IDLE mode procedure Huawei, HiSilicon CR Rel-18 38.304 17.6.0 0358 - B NR\_pos\_enh2

[R2-2312268](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312268%20Introduction%20of%20R18%20positioning%20to%20MR-DC.docx) Introduction of R18 positioning to MR-DC Huawei, HiSilicon CR Rel-18 37.340 17.6.0 0371 - B NR\_pos\_enh2

UE capabilities

[R2-2312762](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312762%20Open%20issue%20list%20for%20Rel-18%20positioning%20capability.doc) Open issue list for Rel-18 positioning capability Xiaomi discussion

NR\_pos\_enh2

Proposals for SL positioning:

Proposal 1 RAN2 to confirm the above understanding relating to the applicable positioning methods of each RAN1 feature.

Proposal 2 RAN2 to agree that positioning method specific capabilities are included in the positioning method specific capability IE.

Proposal 3 RAN2 to agree that periodical reporting capability is indicated per positioning mode per positioning method.

Proposal 4 RAN2 to agree that 10ms granularity response time is indicated per positioning mode per positioning method.

Proposal 5 RAN2 agrees to have the following three SL positioning modes:

- UE assisted LMF based: an operation in which measurements are provided by the UE to the LMF to be used in the computation of a position estimate.

- UE assisted server UE based: an operation in which measurements are provided by the UE to the server UE to be used in the computation of a position estimate.

- UE based: an operation in which UE computes its own position.

Proposal 6 If scheduled location time is supported, corresponding capability is introduced and indicated per positioning mode per positioning method.

Proposal 7 Supported UE roles are included in the capability signalling.

Proposal 8 The UE roles in the capability signalling include anchor UE, anchor UE with location (i.e. located UE), server UE. UE can indicate the support of multiple UE roles.

Proposal 9 Target UE needs to know the supported positioning methods of server UE.

Proposal 10 The supported positioning methods of server UE can be provided through metadata of discovery message.

Proposal 11 No capability signalling specific to server UE is needed.

Proposals for Uu positioning:

Proposal 12 Additional finer-grained capabilities for RAT dependent positioning integrity are not needed.

Proposal 13 Wait the progress on the alignment of PRS to fixed (e)DRX and then decides whether the corresponding capability is needed or not.

Proposal 14 The UE capability on supporting SRS with validity area request by RRC message is not needed.

[R2-2312761](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312761%20Report%20of%20%5bPost123bis%5d%5b407%5d%5bPOS%5d%20Rel-18%20positioning%20capabilities.docx) Report of [Post123bis][407][POS] Rel-18 positioning capabilities Xiaomi discussion

[R2-2312726](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312726%20306%20Running%20CR%20for%20SL%20positioning.doc) Running CR 38.306-SL positioning Xiaomi draftCR Rel-18 38.306 17.6.0 B

[R2-2312727](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312727%20TP%20for%20SLPP%20and%20RRC%20capability%20signalling%20for%20SL%20positioning.doc) TP for SLPP and RRC capability signalling for SL positioning Xiaomi discussion Rel-18

[R2-2312752](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312752%20Running%20CR%2038.306%20for%20R18%20Uu%20positioning.docx) Running CR 38.306 for R18 Uu positioning Xiaomi draftCR Rel-18 38.306 17.6.0 NR\_pos\_enh2

[R2-2312755](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312755%20TP%20for%20LPP%20capability%20signalling%20for%20Bandwidth%20Aggregation.doc) TP for LPP capability signalling for Bandwidth Aggregation Xiaomi discussion

[R2-2312756](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312756%20TP%20for%20LPP%20capability%20signalling%20for%20CPP.doc) TP for LPP capability signalling for CPP Xiaomi discussion

[R2-2312757](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312757%20TP%20for%20LPP%20capability%20signalling%20for%20LPHAP.doc) TP for LPP capability signalling for LPHAP Xiaomi discussion

[R2-2312758](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312758%20TP%20for%20LPP%20capability%20signalling%20for%20RAT-dependent%20positioning%20integrity.doc) TP for LPP capability signalling for RAT-dependent positioning integrity Xiaomi discussion

[R2-2312759](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312759%20TP%20for%20LPP%20capability%20signalling%20for%20RedCap.doc) TP for LPP capability signalling for RedCap Xiaomi discussion

[R2-2312760](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312760%20TP%20for%20RRC%20capability%20signalling%20for%20Uu%20positioning.doc) TP for RRC capability signalling for Uu positioning Xiaomi discussion

TS 38.355

[R2-2312020](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312020_%5bPost123bis%5d%5b412%5d%5bPOS%5d%20TS%2038.355%20(Intel)_v15_Summary%20Final.docx) Report of [Post123bis][412][POS] TS 38.355 (Intel) Intel Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2312021](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Docs\R2-2312021.zip) TS 38.355 v1.2.0 Intel Corporation draft TS Rel-18 38.355 1.2.0 NR\_pos\_enh2

[R2-2312022](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312022%20%20SLPP%20related%20open%20issues.docx) Further Considerations on SLPP related open issues Intel Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2312023](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312023%20Draft%2038.355-130-rm.docx) Draft TS 38.355 v1.3.0 Intel Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2312028](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312028%20Capture%20SLPP%20related%20RAN1%20parameters.docx) Capture SLPP related RAN1 parameters Intel Corporation discussion Rel-18 NR\_pos\_enh2

Draft outgoing LS

[R2-2313118](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313118%20Draft%20LS%20to%20SA2%20on%20introduction%20of%20RAT-Dependent%20integrity.docx) Draft LS to SA2 on introduction of RAT-Dependent integrity CATT LS out Rel-18 NR\_pos\_enh2 To:SA2

### 7.2.2 Sidelink positioning

Positioning architecture and unicast signalling procedures (e.g. configuration, measurement reporting, etc) to enable session-based sidelink positioning for a single target UE. 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 between UEs and between UEs and LMF (the latter for in-coverage scenarios only and including joint PC5-Uu scenarios, and with the assumption that all UEs are served by the same LMF); and signalling to NG-RAN for SL positioning and service authorization as needed. No work on procedures for synchronization of the anchor UEs for SL-TDOA.

Companies are requested not to contribute documents on SLPP forwarding or discovery metafield contents. The corresponding email discussions will be treated under this agenda item.

Including report of [Post123bis][404][POS] SLPP forwarding (Intel)

Including report of [Post123bis][405][POS] Sidelink positioning discovery metafield (vivo)

Email discussion reports

[R2-2312019](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312019.docx) Report of [Post123bis][404][POS] SLPP forwarding (Intel) Intel Corporation discussion Rel-18 NR\_pos\_enh2

Proposal: SLPP forwarding functionality shall not be supported for Rel-18 and RAN2 understands that forwarding (if needed) will be handled by CT1 according to SA2 WF. RAN2 also agrees to provide support to other groups on this aspect as needed.

[R2-2311863](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311863%20Report%20of%20%5bPost123bis%5d%5b405%5d%5bPOS%5d%20Sidelink%20positioning%20discovery%20metafield%20(vivo).docx) Report of [Post123bis][405][POS] Sidelink positioning discovery metafield (vivo) vivo report Rel-18 FS\_NR\_pos\_enh2

Proposal 1 (13/16): RAN2 to specify the RSPP metafield in SLPP specification as a separate PDU/ASN.1 module.

Proposal 2 (13/15): Introduce an unified RSPP metafield structure for all the discovery messages.

Proposal 3: Ask SA2 whether the metafield type (i.e., announced, required, satisfied) can be implicitly indicated by the discovery message that carries the metafield. If not feasible, introduce an explicit indication of the metafield type.

Proposal 4 (12/16): To distinguish the Reference UE/Anchor UE from Located UE, the UE announced as anchor UE in the RSPP metafield should also indicate the availability of known location (1-bit indication).

Proposal 5 (14/16): Multiple UE roles can be indicated in the RSPP metafield.

Proposal 6 (12/18): No need to explicitly indicate the SLPP support in the RSPP metafiled.

Proposal 7 (11/18): Include the Sidelink positioning methods (i.e., SL-RTT, SL-AoA, SL-TDOA, SL-TOA) of anchor UE in the RSPP metafiled.

Proposal 8 (9/17): No need to include Sidelink positioning methods of server UE in the RSPP metafiled. Can revisit this if server UE will expose its capability to other UEs via SLPP ProvideCapabilities message.

Proposal 9: During discovery, anchor UE should indicate whether it is in the coverage of a network supporting Ranging/SL Positioning. Ask SA2 whether the indication is inside or outside the RSPP metafield.

Proposal 10 (17/17): No need to include the serving PLMN in the RSPP metafiled.

Proposal 11 (10/17): No need to include the mobility status (Stationary or movable) of anchor UE in the RSPP metafiled. Can revisit this if SA2 decides it is needed.

Proposal 12: Reply LS to SA2 on the agreements and issues related to the RSPP metafield.

P17-P31 (RRC issues)

[R2-2312255](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312255%20Remaining%20issues%20in%20the%20lower%20layer%20for%20Sidelink%20positioning.docx) Remaining issue for the lower layer for sidelink positioning Huawei, HiSilicon discussion Rel-18 NR\_pos\_enh2

P3-P13 (MAC issues)

[R2-2312441](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312441%20Discussion%20on%20remaining%20issues%20for%20lower-layer%20related%20sidelink%20positioning.docx) Discussion on remaining issues for lower-layer related sidelink positioning ZTE Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2311861](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311861%20Remaining%20issues%20on%20higher%20layer%20aspects%20for%20sidelink%20positioning.docx) Remaining issues on higher layer aspects for sidelink positioning vivo discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2311862](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311862%20Discussion%20on%20remaining%20issues%20of%20SL-PRS%20transmission.docx) Discussion on remaining issues of SL-PRS transmission vivo discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2311929](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311929_Sidelink_Fraunhofer.docx) UE Positioning using Sidelink Fraunhofer IIS, Fraunhofer HHI discussion

[R2-2312024](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312024.docx) MAC related open issues on SL positioning Intel Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2312127](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312127%20SLPP%20and%20SLpos%20caps.doc) Further discussion on SLPP and SL positioning capabilities Lenovo discussion Rel-18 NR\_pos\_enh2

[R2-2312254](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312254%20Discussion%20on%20higher%20layer%20aspects%20for%20Sidelink%20Positioning.docx) Discussion on higher layer aspects for sidelink positioning Huawei, HiSilicon discussion Rel-18 NR\_pos\_enh2

[R2-2312266](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312266%20Control%20plane%20open%20issues%20for%20R18%20sidelink%20poisitioning.docx) Control plane open issue for R18 SL positioning Huawei, HiSilicon, Ericsson discussion Rel-18 NR\_pos\_enh2

[R2-2312310](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312310-SL-POS-capabilities-v0.docx) SL Positioning Capabilities Apple discussion Rel-18 NR\_pos\_enh2

[R2-2312311](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312311-LS-discovery-v0.docx) [DRAFT] Reply LS on Sidelink positioning procedure Apple LS out Rel-18 NR\_pos\_enh2 To:SA2, CT1 Cc:RAN1, SA3

[R2-2312370](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312370%20Remaining%20issues%20on%20R18%20sidelink%20positioning.docx) Remaining issues on R18 sidelink positioning LG Electronics Inc. discussion Rel-18

[R2-2312442](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312442%20Discussion%20on%20remaining%20issues%20for%20higher-layer%20related%20sidelink%20positioning.docx) Discussion on remaining issues for higher-layer related sidelink positioning ZTE Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2312554](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Docs\R2-2312554.zip) Further discussion on sidelink positioning SLPP left issue OPPO discussion Rel-18 NR\_pos\_enh2

* Revised in R2-2313572

R2-2313572 Further discussion on sidelink positioning SLPP left issue OPPO discussion Rel-18 NR\_pos\_enh2

[R2-2312555](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312555%20Discussion%20on%20sidelink%20positioning%20leftover%20MAC%20issue.docx) Discussion on sidelink positioning leftover MAC issue OPPO discussion Rel-18 NR\_pos\_enh2

[R2-2312566](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312566%20Discussion%20on%20remaining%20issues%20for%20SL%20positioning.docx) Discussion on remaining issues for SL positioning Spreadtrum Communications discussion Rel-18

[R2-2312724](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312724%20Discussion%20on%20SL%20positioning%20open%20issues.doc) Discussion on SL positioning open issues Xiaomi discussion Rel-18

[R2-2312807](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312807_SLPosDiscussion.docx) Remaining issues on SL Positioning Lenovo discussion Rel-18

[R2-2312836](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312836_SL_Pos_Res_Final.docx) Considerations on multiplexing, congestion control and ARP Sony discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2312934](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312934%20(R18%20NR%20POS%20A722%20SL%20POS).docx) Discussion on sidelink positioning InterDigital, Inc. discussion Rel-18 NR\_pos\_enh2

[R2-2312937](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312937%20SL.docx) Remaining issue for NW involved Sidelink positioning Ericsson discussion Rel-18

[R2-2313059](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313059%20-%20Handling%20of%20Sequence%20ID.docx) Handling of SequenceID in SLPP Philips International B.V. discussion NR\_pos\_enh2

[R2-2313270](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313270%20Discussion%20on%20MAC%20open%20issues.doc) Discussion on MAC open issues Samsung discussion NR\_pos\_enh2-Core

[R2-2313329](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313329_(SLPP).docx) Further Considerations on SLPP Design Qualcomm Incorporated discussion

[R2-2313340](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313340%20open%20issue%20for%20SLPP%20design_v3.docx) Discussion on the selected remaining issues on SLPP design Samsung R&D Institute UK discussion

[R2-2313356](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313356-Further%20Discussions%20on%20Sidelink%20Positioning%20and%20Ranging.docx) Further discussion on SL positioning and ranging CEWiT discussion

[R2-2313484](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313484.docx) Discussion of MAC and resource allocation aspects Nokia Netherlands discussion Rel-18

[R2-2313503](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313503.docx) Discussion of SLPP signalling procedures Nokia Netherlands discussion Rel-18

[R2-2313539](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313539%20Providing%20Anchor%20UE%20location%20uncertainty.docx) Providing Anchor Location Uncertainty Philips International B.V. discussion NR\_pos\_enh2

Documents on SLPP forwarding or discovery metafield (disallowed topics)

[R2-2313480](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313480.docx) Discussion of SLPP forwarding aspects Nokia Netherlands discussion Rel-18

### 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.

[R2-2313119](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313119%20Remaining%20Issues%20for%20RAT-dependent%20integrity.docx) Remaining Issues for RAT-dependent integrity CATT discussion Rel-18 NR\_pos\_enh2

[R2-2312938](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312938%20Integrity.docx) Open issues for RAT-dependent integrity Ericsson discussion Rel-18

### 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.

[R2-2313249](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313249_Remaining%20issues%20on%20LPHAP.docx) Remaining issues on LPHAP Samsung discussion Rel-18 NR\_pos\_enh2

[R2-2313319](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313319%20LPHAP%20SRS%20Config%20Release.docx) LPHAP issue of area-specific SRS configuration release Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_pos\_enh2-Core

P1 (access category)

[R2-2311864](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311864%20Discussion%20on%20remaining%20issues%20of%20LPHAP.doc) Discussion on remaining issues of LPHAP vivo discussion Rel-18 FS\_NR\_pos\_enh2

P1+P5 [WAs on resume causes]

[R2-2312025](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312025%20LPHAP.docx) Further considerations on LPHAP Intel Corporation discussion Rel-18 NR\_pos\_enh2

P14 (WA on PRS alignment capability)

[R2-2312440](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312440%20Discussion%20on%20remaining%20issues%20for%20LPHAP.docx) Discussion on remaining issues for LPHAP ZTE Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2311930](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311930_LPHAP_Fraunhofer.docx) Reliable LPHAP position with extended DRX cycle Fraunhofer IIS, Fraunhofer HHI discussion R2-2309579

[R2-2312253](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312253%20Discussion%20on%20LPHAP.docx) Discussion on LPHAP Huawei, HiSilicon discussion Rel-18 NR\_pos\_enh2

[R2-2312401](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312401%20R18%20NR%20POS%20A724%20LPHAP.doc) Discussion on LPHAP InterDigital Inc. discussion Rel-18

[R2-2312465](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312465%20Discussion%20on%20low%20power%20high%20accuracy%20positioning.doc) Discussion on low power high accuracy positioning Lenovo discussion Rel-18

[R2-2312556](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312556%20Discussion%20on%20the%20leftover%20issues%20of%20LPHAP%20enhancement.docx) Discussion on the leftover issues of LPHAP enhancement OPPO discussion Rel-18 NR\_pos\_enh2

[R2-2312753](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312753%20Discussion%20on%20LPHA%20positioning.doc) Discussion on LPHA positioning Xiaomi discussion

[R2-2312803](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312803_(LPHAP).docx) Remaining issues for LPHAP Qualcomm Incorporated discussion

[R2-2312837](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312837_LPHAP_Final.docx) Remaining considerations on Low Power High Accuracy Positioning Sony discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2312939](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312939%20LPHAP.docx) Remaining issue on Low Power High Accuracy Positioning Ericsson discussion Rel-18

[R2-2313120](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313120%20Discussion%20on%20leftover%20issues%20of%20LPHAP.docx) Discussion on leftover issues of LPHAP CATT discussion Rel-18 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.

[R2-2313123](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313123%20Discussion%20on%20leftover%20issues%20of%20Carrier%20Phase%20Positioning.docx) Discussion on leftover issues of Carrier Phase Positioning CATT discussion Rel-18 NR\_pos\_enh2

[R2-2312804](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312804_(PRS%20Aggregation).docx) Remaining Issues for DL-PRS Aggregation Qualcomm Incorporated discussion

[R2-2312838](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312838_RedCap_Final.docx) Discussion on Frequency hopping for Positioning for RedCap Ues Sony discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2312082](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312082%20Discussion%20on%20RAN1%20led%20positioning%20topics.docx) Discussion on RAN1 led positioning topics Huawei, HiSilicon discussion

[R2-2312402](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312402%20R18%20NR%20POS%20A725_NRCP.doc) Discussion on positioning for NR Carrier Phase positioning InterDigital Inc. discussion Rel-18

[R2-2312403](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312403%20R18%20NR%20POS%20A725_RedCap.doc) Discussion on positioning for RedCap UE positionin InterDigital Inc. discussion Rel-18

[R2-2312443](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312443%20Discussion%20on%20remaining%20issues%20for%20BW%20aggregation%20and%20RedCap%20positioning.docx) Discussion on remaining issues for BW aggregation and RedCap positioning ZTE Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2312466](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312466%20Discussion%20on%20RedCap,%20carrier%20phase%20positioning%20and%20PRS,SRS%20bandwidth%20aggregation.docx) Discussion on RedCap positioning, carrier phase positioning and PRS/SRS bandwidth aggregation Lenovo discussion Rel-18

[R2-2312754](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312754%20Discussion%20on%20carrier%20phase%20positioning%20and%20bandwidth%20aggregation%20for%20positioning.doc) Discussion on carrier phase positioning and bandwidth aggregation for positioning Xiaomi discussion

[R2-2312805](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312805_(PRU).docx) Remaining Issues on PRU Operation Qualcomm Incorporated discussion

[R2-2312940](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312940%20RAN1LedTopic.docx) Discussion based upon RAN1 agreements on CPP, RedCap, Bandwidth aggregation Ericsson discussion Rel-18

[R2-2313121](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313121%20Draft%20LS%20to%20RAN1%20on%20positioning%20issues%20needing%20further%20input.docx) Draft LS to RAN1 on positioning issues needing further input CATT LS out Rel-18 NR\_pos\_enh2 To:RAN1 Cc:RAN3, RAN4

[R2-2313122](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313122%20Discussion%20on%20leftover%20issues%20of%20%20bandwidth%20aggregation.docx) Discussion on leftover issues of bandwidth aggregation CATT discussion Rel-18 NR\_pos\_enh2

[R2-2313223](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313223%20CPP%20in%2038.305.docx) Capturing carrier phase positioning in TS 38.305 Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_pos\_enh2-Core

[R2-2313250](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313250_Remaining%20issues%20on%20BW%20aggregation.docx) Remaining issues on BW aggregation Samsung discussion Rel-18 NR\_pos\_enh2

## 7.9 Enhanced NR Sidelink Relay

(NR\_SL\_relay\_enh-Core; leading WG: RAN2; REL-18; WID: [RP-223501](http://ftp.3gpp.org/tsg_ran/TSG_RAN/TSGR_98e/Docs/RP-223501.zip))

Time budget: 1.5 TU

Tdoc Limitation: 4 tdocs

### 7.9.1 Organizational

Including incoming LSs and rapporteur inputs.

Including, for each affected spec:

* Updated running CR
* List of open issues to be addressed by company contributions
* (where applicable) CR rapporteur input with proposals for stage-3 issues (e.g., signalling details, parameter values/ranges) where company contributrions should be avoided

Including outcome of [Post123bis][420][Relay] Rel-18 relay MAC identified open issues (Apple)

Incoming LS with RAN2 in Cc:

[R2-2311722](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311722_R3-235761.docx) LS on handling of location information in multi-path operation (R3-235761; contact: LGE) RAN3 LS in Rel-18 NR\_SL\_relay\_enh-Core, 5G\_ProSe\_Ph2 To:SA2 Cc:RAN2

[R2-2313595](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313595_S3-235005.docx) LS reply on Reporting of Relay UE C-RNTI and NCGI (S3-235005; contact: Huawei) SA3 LSin Rel-18 NR\_SL\_relay\_enh-Core To:RAN2

Incoming LS and related TP

[R2-2311724](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311724_R3-235770.docx) Reply LS to RAN2 on mode 1 scheduling in inter-DU multi-path (R3-235770; contact: NEC) RAN3 LS in Rel-18 NR\_SL\_relay\_enh-Core To:RAN2

[R2-2312219](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312219.docx) (TP for TS 38.300) on mode 1 RA for inter-DU U2N remote UE NEC other Rel-18 NR\_SL\_relay\_enh-Core

Running CRs to 38.331

[R2-2311857](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311857_Introduction%20of%20NR%20sidelink%20U2U%20relay.docx) Introduction of NR sidelink U2U relay vivo draftCR Rel-18 38.331 17.6.0 NR\_SL\_relay\_enh-Core Revised

* Revised in R2-2311934

[R2-2311934](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311934_Introduction%20of%20NR%20sidelink%20U2U%20relay.docx) Introduction of NR sidelink U2U relay vivo CR Rel-18 38.331 17.6.0 4400 - B NR\_SL\_relay\_enh-Core

[R2-2311970](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311970%20Introduction%20of%20Rel-18%20Multi-path.docx) Introduction of Rel-18 Multi-path Huawei, HiSilicon CR Rel-18 38.331 17.6.0 4403 - B NR\_SL\_relay\_enh-Core

[R2-2312499](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312499_38.331_Rel-18_SL_relay_service_continuity.docx) Introduction of Rel-18 SL relay service continuity MediaTek Inc. CR Rel-18 38.331 17.6.0 4432 - B NR\_SL\_relay\_enh-Core

R2-2312689 Introduction of Rel-18 SL relay enhancement Huawei, HiSilicon CR Rel-18 38.331 17.6.0 4441 - B NR\_SL\_relay\_enh-Core Late

Other running CRs

[R2-2311881](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\38351_CR0027_(REL-18)_R2-2311881%20-%20Introduction%20of%20NR%20sidelink%20relay%20enhancements.docx) Introduction of NR SL Relay enhancement OPPO CR Rel-18 38.351 17.6.0 0027 - B NR\_SL\_relay\_enh-Core

[R2-2312029](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312029-Rel-18%20relay%20stage%202%20draft%20CR_v2.doc) Draft running CR 38.300 (update) LG Electronics Inc. draftCR Rel-18 38.300 17.6.0 B NR\_SL\_relay\_enh-Core

[R2-2312182](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\38323_CR0127_Rel-18_R2-2312182_FeatureIntroduction.docx) Introduction of Enhanced NR Sidelink Relay InterDigital CR Rel-18 38.323 17.5.0 0127 - B NR\_SL\_relay\_enh-Core

[R2-2312337](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312337%20Running%20CR%2038.321_v1.docx) Introduction of NR sidelink relay enhancements Apple (Rapporteur) CR Rel-18 38.321 17.6.0 1703 - B NR\_SL\_relay\_enh-Core

[R2-2312625](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312625.docx) Introduction of enhanced NR sidelink relay Xiaomi CR Rel-18 38.322 17.3.0 0054 - B NR\_SL\_relay\_enh-Core

[R2-2312929](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312929%20-%2038.304_CR0365_Introduction%20of%20Rel-18%20support%20for%20SL%20Relay%20Enhancements.docx) Introduction of Rel-18 SL Relay Enhancements Ericsson CR Rel-18 38.304 17.6.0 0365 - B NR\_SL\_relay\_enh-Core

[R2-2313527](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313527%2038.306%20CR1011%20for%20SL%20relay%20enhancement.docx) Introduction of SL relay enhancement Samsung CR Rel-18 38.306 17.6.0 1011 - B NR\_SL\_relay\_enh-Core

[R2-2313528](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313528%2038.331%20CR4500%20for%20UE%20capability_SL%20relay.docx) Introduction of SL relay enhancement Samsung CR Rel-18 38.331 17.6.0 4500 - B NR\_SL\_relay\_enh-Core

MAC open issues email discussion report

[R2-2312336](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312336%20summary%20MAC%20open%20issues%20V18_Rapp_summary.docx) Summary of [Post123bis][420][Relay] Rel-18 relay MAC identified open issues (Apple) Apple discussion Rel-18 NR\_SL\_relay\_enh-Core

Easy Proposals:

Proposal 1: [13/13] Only 1 leg is allowed in the indirect path for MP duplication (i.e., any e2e traffic cannot be duplicated either in PC5 hop or Uu hop in the indirect path) .

Proposal 6: [14/14] Only PDCP duplication in MCG is considered for Rel-18 Multi-path.

Proposal 7: [14/14] MP remote UE reports UL BSR and SL BSR respectively by following legacy procedure. No spec impact foreseen.

Proposal 8: [14/14] Removes the editor note “FFS whether the SL-BSR also reports Uu path traffic buffer“ in clause 6.1.3.33.

Proposal 9: [11/12] only introduce a single new LCID (e.g., LCID 55) for SCCH carrying end-to-end SL-SRB0/1/2/3 messages in L2 U2U relay in MAC spec.

Proposals to be discussed:

Proposal 2: [9/13] RAN2 to discuss whether >1 leg (i.e., CA) can be allowed for direct Uu path in PDCP duplication for MP.

Open issues documents

[R2-2311858](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311858_%20RRC%20Open%20issues%20for%20U2U%20relay.docx) RRC Open issues for U2U relay vivo other Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312095](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312095_U2U%20relay%20proposals%20for%20stage-3%20issues.docx) U2U relay proposals for stage-3 issues vivo discussion

[R2-2311880](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311880%20-%20SRAP%20open%20issues%20for%20R18%20sidelink%20relay.docx) SRAP open issues for R18 sidelink relay OPPO other Rel-18 NR\_SL\_relay\_enh-Core

[R2-2311971](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311971%20RRC%20open%20issues%20for%20Rel-18%20Multi-path%20(Outcome%20of%20%5bPost123bis%5d%5b417%5d%5bRelay%5d).docx) RRC open issues for Rel-18 Multi-path (Outcomes of [Post123bis][417][Relay]) Huawei, HiSilicon report Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312018](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312018-Stage%202%20Draft%20CR%20Open%20Issues.docx) Stage 2 Open Issues LG Electronics Inc. other Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312180](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312180%20summary%20PDCP%20open%20issues.docx) Summary of [Post123bis][415][Relay] Rel-18 relay PDCP Identified open issues (InterDigital) InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312181](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312181%20PDCP%20open%20issues%20for%20Rel-18%20Relay.docx) PDCP Open Issues for Rel-18 Relay InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312507](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312507%20Remaining%20open%20issues%20for%20service%20continuity.docx) Remaining open issues for service continuity MediaTek Inc. report Rel-18

UE capabilities

[R2-2312695](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312695%20UE%20capability%20for%20sidelink%20relay%20enhancement.doc) UE capability for sidelink relay enhancement Samsung discussion Rel-18 NR\_SL\_relay\_enh-Core

Proposal 1. RAN2 to confirm to reuse relayUE-Operation-L2-r17 for indicating the support of L2 U2U relay UE operation and to reuse remoteUE-Operation-L2-r17 for indicating the support of L2 U2U remote UE operation.

Proposal 2. RAN2 to confirm to reuse L3 sidelink relay UE operation for UE which supports L3 U2U relay UE operation and to reuse L3 sidelink remote UE operation for UE which supports L3 U2U remote UE operation.

Proposal 3. RAN2 to confirm that the capability parameters of U2U relay UE operation and U2U remote UE operation are not signalled to peer UE.

Proposal 4. RAN2 to confirm that U2U relay discovery capability is common to L3 U2U relay and L2 U2U relay, discovery models A/B and integrated discovery, and remote UE and relay UE.

Proposal 5. RAN2 to discuss to reuse the band combination list defined for Rel-17 NR Relay discovery as an indication for the support of U2U relay discovery.

Proposal 6. RAN2 to confirm that existing UE capability parameters of Release 17 L2 U2N relaying can be reused and no additional UE capability parameter is needed for Release 18 L2 U2N relay service continuity.

Proposal 7. RAN2 to define new two UE capability parameters to indicate the support of multi-path relaying via L2 U2N relay and to indicate the support of multi-path relaying via non-3GPP connection.

Proposal 8. RAN2 to confirm that the two UE capability parameters on multi-path relaying are signalled only to gNB.

Proposal 9. RAN2 to confirm to reuse L3 sidelink relay UE operation and L3 sidelink remote UE operation for UE which support multi-path relaying via L3 U2N relay.

Proposal 10. RAN2 to discuss whether the support of RRC\_IDLE/RRC\_INACTIVE target Relay UE for indirect path addition/change in MP scenario 1 is based on UE capability.

Proposal 11. If MP relay indirect path addition/change to an IDLE/INACTIVE target Relay UE is a UE capability, RAN2 to discuss whether to reuse the capability flag of Rel-17 U2N relay i.e., remoteUE-PathSwitchToIdleInactiveRelay-r17.

Proposal 12. RAN2 to confirm that existing UE capability parameters of Release 17 sidelink DRX can be reused and no additional UE capability parameter is needed for Release 18 SL DRX.

Withdrawn/Not available

[R2-2312017](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312017-Rel-18%20relay%20stage%202%20draft%20CR.doc) Draft running CR 38.300 LG Electronics Inc. draftCR Rel-18 38.300 17.6.0 B NR\_SL\_relay\_enh-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.

P1-P6, P13-P24, subject to time constraints

[R2-2311877](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311877%20-%20Discussion%20on%20control%20plane%20procedure%20of%20U2U%20Relay.docx) Discussion on control plane procedure of U2U relay OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core

P5-P10

[R2-2312416](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312416%20Disussion%20on%20U2U%20Relay.docx) Discussion on U2U Relay CATT discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2311878](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311878%20-%20Discussion%20on%20user%20plane%20procedure%20of%20U2U%20Relay.docx) Discussion on user plane procedure of U2U relay OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2311990](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311990+Remaining%20issues%20for%20L2%20U2U%20relay.doc) Remaining issues for L2 U2U relay China Telecom discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312007](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312007%20Discussions%20on%20U2U%20relay.doc) Discussion on U2U relay Fujitsu discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312094](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312094_Remaining%20issues%20on%20L2%20U2U%20relay.docx) Remaining issues on L2 U2U relay vivo discussion

[R2-2312173](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312173%20(R18%20SL%20Relay%20WI_AI792%20U2U%20Relays_OpenIssues).doc) Open Issues on UE-to-UE Relays InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312220](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312220%20Discussion%20on%20L2%20ID%20reporting%20of%20U2U%20relay.docx) Discussion on L2 ID reporting of U2U relay NEC discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312222](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312222-U2U-multi.docx) U2U relaying considering multi-hop Sharp discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312338](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312338%20Discussion%20on%20U2U%20relay%20issues.doc) Discussion on remaining issues on UE-to-UE Relay Apple discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312426](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312426_Discussion%20on%20the%20gNB%20involvement%20in%20U2U%20relay.doc) Discussion on the gNB involvement in U2U relay ZTE, Sanechips discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312427](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312427_Discussion%20on%20remaining%20issues%20on%20U2U%20relay.doc) Discussion on remaining issues on U2U relay ZTE, Sanechips discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312434](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312434%20Discussion%20on%20remaining%20issues%20for%20U2U%20relay.docx) Discussion on remaining issues for U2U relay Xiaomi discussion

[R2-2312452](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312452%20Discussion%20on%20L2%20UE-to-UE%20relay%20v1.0.docx) Discussion on L2 UE-to-UE relay Lenovo discussion Rel-18

[R2-2312496](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312496-U2U.docx) Remaining issues for U2U relay Sharp discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312535](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312535-Our%20views%20about%20open%20issues%20for%20U2U%20relay.docx) Our views about open issues for U2U relay LG Electronics Inc. discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312567](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312567%20Remaining%20issues%20on%20UE-to-UE%20relay.doc) Remaining issues on UE-to-UE relay Spreadtrum Communications discussion Rel-18

[R2-2312615](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312615%20U2U%20reselection.docx) U2U relay (re)selection issues Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312616](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312616%20U2U%20QoS.docx) E2E RB configuration and QoS split for U2U Relays Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312687](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312687_U2U%20relay%20CR%20update%20for%20stage-3%20issues.docx) U2U relay CR update for stage-3 issues vivo draftCR Rel-18 38.331 17.6.0 B NR\_SL\_relay\_enh-Core R2-2311857

[R2-2312692](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312692%20Discussion%20on%20UE-to-UE%20relay.doc) Discussion on UE-to-UE relay Huawei, HiSilicon discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312696](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312696%20Control%20plane%20issues%20for%20L2%20U2U%20relaying.doc) Control plane issues for L2 U2U relaying Samsung discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312697](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312697%20Discussion%20on%20remaining%20issues%20of%20U2U%20relay.docx) Discussion on remaining issues of U2U relay CMCC discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312842](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312842.doc) UE-to-UE relay (re)selection Sony discussion Rel-18 NR\_SL\_relay\_enh

[R2-2312868](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312868-%20Open%20issues%20on%20U2U%20Relay.docx) Open issues on U2U Relay Qualcomm Incorporated discussion NR\_SL\_relay\_enh-Core

[R2-2312882](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312882_U2U_relay.docx) Considerations for U2U L2 relay operations Kyocera discussion

[R2-2312924](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312924_Discussion_on_Relay_reselection_Discovery.docx) Discussion on Relay (re)selection and Discovery Ericsson discussion Rel-18

[R2-2312925](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312925_Control_Plane_Procedures_for_L2_U2U_relays.docx) Control Plane Procedures for Layer 2 UE-to-UE Relays Ericsson discussion Rel-18

[R2-2313192](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313192%20Remaining%20issues%20on%20AS%20layer%20configuration%20for%20L2%20U2U%20Relay.docx) Remaining issues on AS layer configuration for L2 U2U Relay ASUSTeK discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2313193](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313193%20Remaining%20issue%20on%20PC5%20radio%20link%20failure.docx) Remaining issue on PC5 radio link failure ASUSTeK discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2313232](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313232%20U2U%20triggers%20and%20thresholds.docx) Discussion on U2U relay (re)selection triggers and thresholds Beijing Xiaomi Mobile Software discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2313509](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313509%20SRAP%20design%20for%20U2U%20sidelink%20relay%20v2.docx) SRAP design for U2U Sidelink Relay: remaining issues Samsung R&D Institute UK discussion

[R2-2313542](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313542_SL%20Relay_U2U_OpenIssues_FhG.docx) Discussion on (re-)selection criteria for U2U relaying Fraunhofer IIS, Fraunhofer HHI discussion Rel-18 NR\_SL\_relay\_enh, 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.

[R2-2312617](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312617%20Remaining%20issues%20on%20service%20continuity.docx) SL Relay service continuity consideration Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312926](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312926_Discussion_on_Inter_gNB_Service_Continuity.docx) Discussion on Inter-gNB Service Continuity Ericsson discussion Rel-18

[R2-2311872](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311872.docx) Discussion on service continuity Xiaomi discussion

[R2-2312417](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312417%20Further%20Consideration%20on%20Service%20Continuity%20Enhancements.docx) Further Consideration on Service Continuity Enhancements CATT discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312428](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312428_Remaining%20issues%20on%20service%20continuity.doc) Remaining issues on service continuity for SL relay ZTE, Sanechips discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312497](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312497-SLR_enh_core%20Remaining%20issues%20for%20i2i%20path%20switching.doc) Remaining issues for i2i path switching Sharp discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312843](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312843.doc) Service continuity enhancements for UE sidelink relay Sony discussion Rel-18 NR\_SL\_relay\_enh

[R2-2313033](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313033.docx) Discussion on additional aspects for service continuity Huawei, HiSilicon 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).

[R2-2313309](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313309%20Discussion%20on%20issues%20for%20Multi-path%20relaying.doc) Discussion on remaining issues for multi-path relaying LG Electronics Inc. discussion Rel-18 NR\_SL\_relay\_enh-Core

Discussed jointly (relay UE entering RRC\_CONNECTED)

[R2-2312870](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312870-Discussion%20on%20trigger%20Relay%20UE%20entering%20CONNECTED%20state-r1.docx) Issue#2-4-Discussion on trigger MP Relay UE entering CONNECTED state Qualcomm Incorporated, Huawei, HiSilicon, CATT, CMCC discussion NR\_SL\_relay\_enh-Core

[R2-2313213](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313213-%20Discussion%20on%20the%20release%20version%20indication%20of%20MP%20Relay%20UE.docx) Discussion on the release version indication of MP Relay UE OPPO, Interdigital, NEC, vivo, ZTE, Ericsson discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312175](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312175%20(R18%20SL%20Relay%20WI_AI794%20MultiPath_PDCP_OpenIssues).doc) Open Issues on PDCP for Multipath InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312429](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312429%20Remaining%20issues%20on%20the%20support%20of%20multi-path%20relaying.docx) Remaining issues on the support of multi-path relaying ZTE, Sanechips discussion Rel-18 NR\_SL\_relay\_enh-Core

P6 and P8 (relay handover and WA on T304)

[R2-2312339](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312339%20Discussion%20on%20remaining%20issues%20on%20Multi-path.doc) Discussion on remaining issues for Multi-path Relay Apple discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2311873](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311873.docx) Discussion on multi-path Xiaomi discussion

[R2-2311879](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311879%20-%20Discussion%20on%20control%20plane%20procedure%20of%20multi-path%20Relay.docx) Discussion on control plane procedure of multi-path relay OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2311953](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311953_Discussion%20on%20CP%20Issues%20of%20Multi-path%20Relaying.docx) Discussion on CP Issues of Multi-path relay NEC discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2311954](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311954_Discussion%20on%20UP%20Issues%20of%20Multi-path%20Relaying.docx) Discussion on UP Issues of Multi-path relay NEC discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2311991](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311991%20Discussion%20on%20control%20plane%20remaining%20issues%20of%20multi-path%20relaying.docx) Discussion on control plane remaining issues of multi-path relaying China Telecom discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2311992](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2311992%20Discussion%20on%20user%20plane%20remaining%20issues%20of%20multi-path%20relaying.docx) Discussion on user plane remaining issues of multi-path relaying China Telecom discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312008](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312008%20Discussions%20on%20multi-path.docx) Discussions on multi-path Fujitsu discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312096](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312096_Remaining%20issues%20on%20Multi-path%20relay.docx) Remaining issues on Multi-path relay vivo discussion

[R2-2312174](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312174%20(R18%20SL%20Relay%20WI_AI794%20MultipathRemainingIssues).doc) Remaining RRC Issues for Multipath InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312176](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312176%20(R18%20SL%20Relay%20WI_AI794%20DirectPathRelease.doc) Specifying the Direct Path Release in Multipath InterDigital, Apple, Ericsson, Xiaomi discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312418](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312418_Open%20Issues%20Specific%20for%20MP%20Scenario%201%20or%20Scenario%202.docx) Open Issues Specific for MP Scenario 1 or Scenario 2 CATT discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312419](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312419_Open%20Issues%20Common%20for%20MP%20Scenario%201%20and%20Scenario%202.docx) Open Issues Common for MP Scenario 1 and Scenario 2 CATT discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312453](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312453%20Failure%20handling%20in%20indirect%20path%20addition%20and%20change%20v1.0.docx) Failure handling in indirect path addition and change Lenovo discussion Rel-18

[R2-2312454](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312454%20Open%20Issue%232-1%20related%20to%20direct%20path%20additionchangerelease%20v1.0.docx) Open Issue#2-1 related to direct path addition/change/release Lenovo discussion Rel-18

[R2-2312498](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312498-MP.docx) Remaining issues for multi-path relay Sharp discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312540](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312540%20Remaining%20points%20in%20Multipath%20relaying.docx) Remaining points in Multipath relaying Lenovo discussion NR\_SL\_relay\_enh-Core

[R2-2312568](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312568%20Remaining%20issues%20on%20multi-path%20relaying.docx) Remaining issues on multi-path relaying Spreadtrum Communications discussion Rel-18

[R2-2312690](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312690%20CP%20remaining%20issues%20on%20multi-path%20operation.docx) CP remaining issues on multi-path operation Huawei, HiSilicon discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312691](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312691%20UP%20remaining%20issues%20on%20multi-path%20operation.docx) UP remaining issues on multi-path operation Huawei, HiSilicon discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312698](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312698%20Remaining%20issues%20on%20multi-path.docx) Remaining issues on multi-path CMCC discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312699](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312699%20Discussion%20on%20indirect%20path%20addition%20procedure%20for%20MP.docx) Discussion on indirect path addition procedure for MP CMCC discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312734](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312734_SLRelay_CP_v1.0.docx) Discussion on remaining CP issues on multiple path for sidelink relay Samsung discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312735](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312735_SLRelay_UP_v1.0.docx) Discussion on remaining UP issues on multiple path for sidelink relay Samsung discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2312844](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312844.doc) Multi-path relaying discussion Sony discussion Rel-18 NR\_SL\_relay\_enh

[R2-2312869](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312869-open%20issues%20for%20MP%20relay.docx) Open issues on multi-path relay Qualcomm Incorporated discussion NR\_SL\_relay\_enh-Core

[R2-2312883](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312883_multipath_relay.docx) Considerations for multipath relay operations for Scenario 1 Kyocera discussion

[R2-2312927](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312927_Discussion_on_multipath%20relays.docx) Discussion on Multipath Relays Ericsson discussion Rel-18

[R2-2313126](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313126%20Remaining%20isues%20on%20multipath%20relay.docx) Remaining issues for MP relay Nokia, Nokia Shanghai Bell discussion NR\_redcap\_enh-Core

### 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.

## 7.24 TEI18

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

Time budget: 1 TU

### 7.24.0 In Principle Agreed CRs

[R2-2312107](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312107.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 17.6.0 0134 2 C TEI18 R2-2305852

[R2-2312108](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312108.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 17.6.0 0907 3 C TEI18 R2-2306828

[R2-2312109](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312109.docx) Support positioning of L2 UE-to-network remote UEs [PosL2RemoteUE] MediaTek Inc., CATT, Huawei, HiSilicon, Qualcomm Incorporated, Xiaomi, Intel Corporation, vivo, Ericsson, Samsung CR Rel-18 37.355 17.6.0 0444 2 C TEI18 R2-2305854

[R2-2312110](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312110.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, Samsung, ZTE CR Rel-18 38.331 17.6.0 4066 5 C TEI18 R2-2306839

[R2-2312808](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312808_(LPP%20CR%20on%20local%20coordinates).docx) Support of Local Cartesian Coordinates in LPP [PosLocalCoords] Qualcomm Incorporated CR Rel-18 37.355 17.6.0 0447 1 C TEI18 R2-2305891

[R2-2313046](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313046_38331.docx) SSR Satellite PCV Residuals [Rel18PCV] Swift Navigation, Ericsson CR Rel-18 38.331 17.6.0 4296 2 C TEI18 R2-2309324

[R2-2313061](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313061_37355.docx) SSR Satellite PCV Residuals [Rel18PCV] Swift Navigation, Ericsson CR Rel-18 37.355 17.6.0 0465 2 C TEI18 R2-2309322

[R2-2313062](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313062_36331.docx) SSR Satellite PCV Residuals [Rel18PCV] Swift Navigation, Ericsson CR Rel-18 36.331 17.6.0 4955 2 C TEI18 R2-2309323

[R2-2313063](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313063_36305.docx) SSR Satellite PCV Residuals [Rel18PCV] Swift Navigation, Ericsson CR Rel-18 36.305 17.3.0 0118 2 C TEI18 R2-2309320

[R2-2313065](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313065_38.305.docx) SSR Satellite PCV Residuals [Rel18PCV] Swift Navigation, Ericsson CR Rel-18 38.305 17.6.0 0140 2 C TEI18 R2-2309321

[R2-2313583](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313583.docx) GNSS LOS/NLOS posSIB broadcast assistance information [GNSS LOS/NLOS] Vodafone, Spirent, Ericsson, Telecom Italia, Samsung CR Rel-18 36.331 17.6.0 4931 3 B TEI18 R2-2306786

[R2-2313584](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313584.docx) GNSS LOS/NLOS posSIB broadcast assistance information [GNSS LOS/NLOS] Vodafone, Spirent, Ericsson, Telecom Italia, Samsung CR Rel-18 38.331 17.6.0 4109 3 B TEI18 R2-2306787

[R2-2313585](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313585.docx) GNSS LOS/NLOS assistance information [GNSS LOS/NLOS] Vodafone, Spirent, Ericsson, Telecom Italia, Samsung CR Rel-18 37.355 17.6.0 0446 3 B TEI18 R2-2306788

=> Revised in R2-2313591 [AI 7.24.2]

### 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).

Including outcome of [AT123bis][018][CG-SDT TEI18] LS to RAN1 (Ericsson)

[R2-2312446](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312446%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 17.6.0 0437 4 B TEI18 R2-2308141

[R2-2312447](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312447%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 17.6.0 4014 4 B TEI18 R2-2308140

### 7.24.2 TEI proposals by RAN2

Items initiated in RAN2 for NR and LTE.

Tdoc limitation: 1 tdoc, limitation only applicable for non-previously-agreed-to-be-considered TEI proposals.   
proposals that has been agreed or agreed to be considered are not limited by the tdoc limitation.

Including outcome of [Post123bis][403][POS] BT AoA/AoD (Ericsson)

PosL2RemoteUE

[R2-2312129](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312129%20Further%20corrections%20on%20Positioning%20for%20remote%20UEs.doc) Further corrections to RRC CR on Positioning for remote UEs Lenovo discussion Rel-18 TEI18

[R2-2312444](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312444%20Clarification%20on%20remote%20UE%20behaviour%20when%20receiving%20SFN-DFN%20offset%20for%20positioning.docx) Clarification on remote UE behaviour when receiving SFN-DFN offset for positioning ZTE Corporation CR Rel-18 38.331 17.6.0 4431 - B TEI18

[R2-2312936](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312936%20posSIB.docx) Forwarding on posSIBs relaying to remote UE [PosL2RemoteUE] Ericsson CR Rel-18 38.305 17.6.0 0151 - B TEI18

MUSIM paging cause forwarding

[R2-2312195](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312195_38306_Rel_18_CR0978_MUSIM%20paging%20cause%20forwarding.docx) MUSIM paging cause forwarding vivo, Samsung CR Rel-18 38.306 17.6.0 0978 - B LTE\_NR\_MUSIM-Core, NR\_SL\_relay-Core

[R2-2312196](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312196_38331_Rel_18_CR4414_MUSIM%20paging%20cause%20forwarding.docx) MUSIM paging cause forwarding vivo, Samsung CR Rel-18 38.331 17.6.0 4414 - B LTE\_NR\_MUSIM-Core, NR\_SL\_relay-Core

BT-AoA-AoD

[R2-2312943](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312943%20BLESummary.docx) [Post123bis][403][POS] BT AoA/AoD (Ericsson) Ericsson report Rel-18

[R2-2312944](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312944%20stage2LTE.docx) Bluetooth AoA/AoD support [BT-AoA-AoD] Ericsson CR Rel-18 36.305 17.3.0 0119 - B TEI18

[R2-2312945](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312945%20stage2NR.docx) Bluetooth AoA/AoD support [BT-AoA-AoD] Ericsson CR Rel-18 38.305 17.6.0 0153 - B TEI18

[R2-2312946](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2312946%20BLELPP.docx) Bluetooth AoA/AoD support [BT-AoA-AoD] Ericsson CR Rel-18 37.355 17.6.0 0480 - B TEI18

GNSS LoS/NLoS revision of AIP CR

[R2-2313591](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202311%20-%20RAN2_124,%20Chicago\Extracts\R2-2313591%2037355%20CR%20rev4%20GNSS%20LOS-NLOS%20editorial.docx) GNSS LOS/NLOS assistance information [GNSS LOS/NLOS] Vodafone, Spirent, Ericsson, Telecom Italia, Samsung CR Rel-18 37.355 17.6.0 0446 4 B TEI18 R2-2313585

## 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, Slicing.

[R2-2312942](C:\\Users\\mtk16923\\Documents\\3GPP Meetings\\202311 - RAN2_124, Chicago\\Extracts\\R2-2312942 LCSUPP.docx" \o "C:\Users\mtk16923\Documents\3GPP Meetings\202311 - RAN2_124, Chicago\Extracts\R2-2312942 LCSUPP.docx) Introduction of LCS User Plane Ericsson CR Rel-18 38.305 17.6.0 0152 - B TEI18