3GPP TSG-RAN WG2 Meeting #123bis R2-23xxxxx

Xiamen, China, October 9th – 13th, 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: 6 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)

### 5.3.1 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.

[R2-2309620](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309620%20Correction%20to%2038.305%20on%20NR%20E-CID%20-%20r16_final.docx) Correction to 38.305 on NR E-CID Huawei, HiSilicon CR Rel-16 38.305 16.9.0 0143 - F NR\_pos-Core

* Not pursued

[R2-2309621](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309621%20Correction%20to%2038.305%20on%20NR%20E-CID%20-%20r17_final.docx) Correction to 38.305 on E-CID r17 Huawei, HiSilicon CR Rel-17 38.305 17.6.0 0144 - A NR\_pos-Core

* Not pursued

Discussion:

Intel think it is correct but not essential. Ericsson have the same view and think the fields can be taken for granted.

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

[R2-2309622](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309622%20Correction%20to%2038.331%20on%20GNSS-ID%20R16_final.docx) Correction to 38.331 on GNSS-ID r16 Huawei, HiSilicon CR Rel-16 38.331 16.14.0 4309 - F NR\_pos-Core

[R2-2309623](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309623%20Correction%20to%2038.331%20on%20GNSS-ID%20R17_final.docx) Correction to 38.331 on GNSS-ID r17 Huawei, HiSilicon CR Rel-17 38.331 17.6.0 4310 - A NR\_pos-Core

Discussion:

Lenovo think the CR resembles a condition rather than the field description. They would prefer language of the form “if the UE includes this field it shall set gnss-ID to sbas” rather than mandatory present/absent otherwise.

Huawei think the UE sets first the GNSS ID and then determines that it is SBAS.

Intel think the intention is that if GNSS ID is not SBAS, the UE shall not set this field, so they see Lenovo’s proposal as correct.

Lenovo note that the coversheet has the wrong WI code (should be NR\_pos).

Ericsson think the change may not be essential since any UE implementation will do this.

* Added sentence to be replaced with “If the UE includes this field it shall set gnss-ID to sbas”.
* WI code to be corrected.
* Agreed in principle with these changes, as R2-2311370 (Rel-16) and R2-23011371 (Rel-17)

[R2-2309624](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309624%20Correction%20to%2037.355%20on%20broadcast%20information%20element%20R15_final.docx) Correction to 37.355 on broadcast information element Huawei, HiSilicon CR Rel-15 37.355 15.3.0 0467 - F NR\_newRAT-Core

* Not pursued

[R2-2309625](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309625%20Correction%20to%2037.355%20on%20broadcast%20information%20element%20R16_final.docx) Correction to 37.355 on broadcast information element-r16 Huawei, HiSilicon CR Rel-16 37.355 16.12.0 0468 - A NR\_newRAT-Core

* Not pursued

[R2-2309626](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309626%20Correction%20to%2037.355%20on%20broadcast%20information%20element%20R17_final.docx) Correction to 37.355 on broadcast information element-r17 Huawei, HiSilicon CR Rel-17 37.355 17.6.0 0469 - A NR\_newRAT-Core

* Not pursued

Discussion:

Qualcomm think the change is wrong; the intention is that the UE can decode each segment individually and use it, unlike octet string segmentation. Ericsson have the same understanding.

[R2-2310849](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310849%20GNSSF.docx) GNSS SSR corrections and notes Ericsson CR Rel-16 37.355 16.12.0 0472 - F NR\_pos-Core

* Not pursued (topic can be discussed as an enhancement to later releases)

[R2-2310850](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310850%20GNSSA.docx) GNSS SSR corrections and notes Ericsson CR Rel-17 37.355 17.6.0 0473 - A NR\_pos-Core

* Not pursued

Discussion:

Qualcomm understand we agreed to use the compact SSR format, and the changes extend beyond this to more quality fields per grid point; they understand that one quality is enough, and the grid can always be subdivided if needed. On the additional formulae, they think a reference is enough and we do not need to copy the details in from the ICD.

Ericsson think we are not consistent in this respect so far, and the double reference is not a good idea.

Swift think it may be helpful to be a bit more explicit in our spec, and they would like some more checking.

Ericsson think we could discuss offline.

Qualcomm think nothing is wrong in Rel-16, and it would be OK to discuss this as an enhancement but not as a correction in the legacy releases. Intel agree and think it could be a TEI18. Nokia also agree that the quality indicators are an enhancement, and they feel the IDC details should not be captured.

Swift are OK to discuss it as an enhancement, and they understand that we do not need to wait for RTCM. For the references, they think we can be contribution-driven, but they see that generally there is benefit in more explicit clarity in LPP.

Withdrawn/Not available

R2-2309644 Correction to 38.305 on E-CID r16 Huawei, HiSilicon discussion Rel-16 38.305 NR\_pos-Core Withdrawn

R2-2309645 Correction to 38.305 on E-CID r17 Huawei, HiSilicon discussion Rel-17 38.305 NR\_pos-Core Withdrawn

R2-2309646 Correction to 38.331 on GNSS-ID r16 Huawei, HiSilicon discussion Rel-16 38.331 NR\_pos-Core Withdrawn

R2-2309647 Correction to 38.331 on GNSS-ID r17 Huawei, HiSilicon discussion Rel-17 38.331 NR\_pos-Core Withdrawn

R2-2309648 Correction to 37.355 on broadcast information element-r15 Huawei, HiSilicon discussion Rel-15 37.355 NR\_newRAT-Core Withdrawn

R2-2309649 Correction to 37.355 on broadcast information element-r16 Huawei, HiSilicon discussion Rel-16 37.355 NR\_newRAT-Core Withdrawn

R2-2309650 Correction to 37.355 on broadcast information elementr-r17 Huawei, HiSilicon discussion Rel-17 37.355 NR\_newRAT-Core Withdrawn

# 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: 2 tdocs

### 6.2.1 Control plane and Stage-2 corrections

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).

CR rapporteur summary

[R2-2311261](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2311261%20%5BPre123bis%5D%5B401%5D%5BRelay%5D.docx) Report of [Pre123bis][401][Relay] Rel-17 control plane corrections (Huawei) Huawei discussion Rel-17 NR\_SL\_relay-Core

38.300 corrections

Proposal 1: The stage 2 CRs in R2-2309918 and R2-2311220 are not essential, and not pursued.

Discussion:

Ericsson think on R2-2311220, RAN3 captured the message as a procedural step, and we should align with their procedure. Apple think it is OK to align with RAN3, but they have comments on the text; they think “configured by upper layers” is not needed and we can just say the UE is “triggered” to send the message.

Huawei agree that this change is technically correct, but there are a lot of SUI triggers and they think we should probably not add just this one; would we have to align a lot of other cases? Apple think this is quite an important case.

vivo are also OK with the intention of R2-2311220, but they think maybe we should check the general usage of the SUI in stage 2 and try to have a comprehensive fix.

Ericsson agree with Apple that this case is important for alignment across specifications; they agree it may not be needed for all cases.

OPPO understand that the intention is to align to RAN3, and they would like more time to check and decide if this case is needed.

Ericsson indicate that this step is explicitly mentioned in RAN3 because it is connected to the inter-gNB procedures.

Lenovo think the SUI message is captured in Rel-16, and we do not need to change anything.

OPPO think R2-2309918 is needed to align across specs; they understand that the related agreement referred to by Huawei in the document is to address an issue with multiple services sharing the same L2ID, but this case was later determined not to exist based on SA2 guidance. So they think stage 3 is correct and stage 2 should be updated.

MediaTek have the same understanding as OPPO.

vivo think stage 2 already indicates that the upper layer will release the link, so they do not see a misalignment.

Xiaomi think the concern was for buffered data, and the intention of the deleted text is to allow the UE to keep the connection for a short time; it does not mean that the UE will not release the link at all. OPPO think on this point, if the UE does not release the link, the network may assume it has been released and reconfigure the UE accordingly; normally we handle configuration changes immediately. Xiaomi think it does not prevent the network from establishing a new connection with another destination.

InterDigital agree with Xiaomi and think there is no issue from the network side.

Xiaomi agree with vivo’s reading that the upper layer is already guided to release the link.

OPPO wonder if the PC5 link can be maintained for a while when the indirect link has been released by the network, is the SRAP configuration invalid?

LG have the same understanding as Xiaomi and vivo that the release is triggered by upper layers.

Apple think the intention of the sentence is clear and the delay is intended to be temporary.

38.304 corrections

Proposal 2a: The 2nd change of replacing “for non L2 U2N Remote UE out-of-coverage” with “for out of coverage UE” to cover OoC remote UE when the frequency is included in sl-FreqInfoList in SIB12 in R2-2309516 is agreeable.

Discussion:

Ericsson are OK with the proposal, but they wonder what the wording originally meant. Nokia think it was just a mistake, but they think even with the correction, the paragraph is a little unclearly scoped (“is a remote UE” vs. “is acting as a remote UE”). Ericsson understand that the current text makes sense if decoded: If the UE acts as a remote UE, it has guidance from the text, and if not, SIB12 will not be taken into account. They are not sure “is a remote UE” vs. “is acting as a remote UE” is a clear distinction.

NEC think this may cause some ambiguity and the wording should be checked.

Proposal 2b: To discuss whether/how to clarify in TS38.304 that a Remote UE can use preconfiguration when the interested frequency is not included in SIB12, based on the 1st change and 3rd change in R2-2309516 as well as the proposals in R2-2310758.

Discussion:

Xiaomi think the scenario is not valid, because the relay UE will perform communication on the frequencies indicated by SIB12, so it would result in a mismatch between relay and remote.

Qualcomm think the proposal is confusing; they understand the intention is that if SIB12 does not provide any resources, the UE is allowed to use preconfiguration, and they think this is correct, but they are not sure if Nokia’s proposal is aligned with it.

Nokia wonder whether the UE is allowed to use preconfiguration in case of transmitting non-SL-relay-related data to other UEs; they think Xiaomi are correct that the mismatch scenario is not valid, but they are trying to distinguish between the relay and non-relay cases.

LG think the remote UE can assume when it receives SIB12, it is in coverage, and normally an in-coverage UE cannot use preconfiguration.

Xiaomi understand that relay and non-relay cases will always have different L2IDs, so Nokia’s concern should not apply.

InterDigital understand that if the UE is out of coverage or receives SIB12 from a relay, if the frequency information, the UE is by definition out of coverage on that frequency and allowed to use preconfiguration.

Qualcomm want to clarify whether we are discussing the case that SIB12 provides no frequency resources or only frequency resources in which the UE is not interested.

Ericsson understood that P2a is talking about a non-L2-relay UE in connection with a DRX configuration, and this is unrelated to P2b. For P2b, they think the concern is that an OOC remote UE that receives SIB12 from the relay UE would use the contents, but the same UE doing non-relay communication would use preconfiguration; they think the current spec is fine in this respect.

Nokia think we could keep the CR as is.

Qualcomm think we should clarify that if SIB12 provides any frequency resource, the UE is not allowed to use preconfiguration. Xiaomi wonder why SIB12 would be provided with no frequency information at all.

OPPO wonder if it is common understanding that for idle/inactive relay UEs, the UE will always follow SIB12 configuration, or if it may also use preconfiguration.

NEC think when the relay UE is in idle/inactive, it can operate as a legacy sidelink UE and operate inter-frequency.

vivo think we are close to convergence and we might be able to agree on the intended behaviour. OPPO have a different understanding on this aspect; they agree with NEC, and they wonder why the remote UE has to follow the SIB12 configuration if the relay UE does not.

Qualcomm would like to check this offline; they think there may be cases where the frequency is optional and the UE behaviour is unclear. Apple agree that more time to check would be useful.

* [AT123bis][419][Relay] Rel-17 relay 38.304 corrections (OPPO)

 Scope: F2F offline to continue discussion of P2a/P2b of R2-2311261 and attempt to reach an agreeable way forward.

 Intended outcome: Agreeable CR in R2-2311379

 Deadline: Wednesday 2023-10-11 2000 CST

 Schedule: Tuesday afternoon in Brk3 (exact time to be confirmed with secretary)

38.331 corrections

Proposal 3: The following changes to TS 38.331 are not pursued.

– The proposed changes in R2-2310035 and R2-2310036 for proactive PWS SIBs forwarding

– The proposed changes in R2-2310354 for sl-LocalID-Request in SUI

– The proposed changes in R2-2310701 for relay UE’s reconfiguration failure

Proposal 4: The following changes to TS 38.331 are agreeable. Can further check whether to have separate CRs or merge into one rapporteur CR.

– The changes in R2-2310493, and the 1st change in R2-2310599 of adding “PSSCH” before DMRS in clause 5.5.3.4, and the 3rd change in R2-2310035 of increasing the indent of “SL-SRAP-Config-r17” in subclause 6.3.5 are editorial, and can be merged into the rapporteur CR.

– In clause 5.3.7.3, a NOTE is added to clarify that a L2 U2N Relay UE may re-establish (e.g. via release and establish) the SL-RLC0 and SL-RLC1 of the connected L2 Remote UE(s) during RRC reestablishment procedure (R2-2310494)

– In clause 5.8.3.3 “or report other parameters related to U2N relay operation” is added after “if the UE initiates the procedure to request (configuration/ release) of NR sidelink U2N relay communication transmission resources” (based on the 4th change in R2-2310599)

– The proposed changes to the descriptions of event Y2 related parameters in R2-2310816

– In clause 5.3.5.16, “or received from RRCSetup message” is added at the end of “if sl-L2RemoteUE-Config is set to setup” (based on R2-2310838)

– In clause 5.8.3.2, “/ configured with measurement object associated to L2 U2N Relay UEs” is removed from discovery reception branch to discovery transmission branch (based on R2-2310600)

The following documents will not be individually treated

[R2-2309516](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5C38304_CR0353_%28REL-17%29_R2-2309516%20-%20Correction%20on%20SIB%20and%20Preconfiguration%20applicability_V6.docx) Correction on SIB/Preconfiguration applicability OPPO, ZTE CR Rel-17 38.304 17.6.0 0353 - F NR\_SL\_enh-Core, NR\_SL\_relay-Core

[R2-2309918](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309918_38.300_CR0713_Rel17_PC5%20unicast%20link%20release%20timing%20correction%20in%20indirect%20to%20direct%20path%20switch%20case.docx) PC5 unicast link release timing correction in indirect to direct path switch case MediaTek Inc CR Rel-17 38.300 17.6.0 0713 - F NR\_SL\_relay-Core

* Not pursued (companies can consider whether something is needed)

[R2-2310035](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5C38331_CR4319_%28Rel-17%29_R2-2310035-Correction%20on%20the%20PWS%20SIB%20forwarding.docx) Correction on the PWS SIBs forwarding CATT CR Rel-17 38.331 17.6.0 4319 - F NR\_SL\_relay-Core

[R2-2310036](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310036_Discussion%20on%20PWS%20handling%20in%20L2%20U2N%20Relay%20Scenario.docx) Discussion on PWS Handling in L2 U2N Relay Scenario CATT discussion Rel-17 NR\_SL\_relay-Core

[R2-2310354](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310354%2038331_R17_relay_Correction_lcoal%20ID%20request.docx) Correction on the inclusion of sl-LocalID-Request in SUI Apple CR Rel-17 38.331 17.6.0 4325 - F NR\_SL\_relay-Core

[R2-2310493](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5C38331_CR4331_%28Rel-17%29_R2-2310493%20Miscellaneous%20corrections%20for%20SL%20relay.docx) Miscellaneous corrections for SL relay Huawei, HiSilicon CR Rel-17 38.331 17.6.0 4331 - F NR\_SL\_relay-Core

[R2-2310494](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5C38331_CR4332_%28Rel-17%29_R2-2310494%20SL-RLC0%20and%20SL-RLC1%20handling%20during%20L2%20Relay%20UE%20RRC%20reestablishment.docx) SL-RLC0 and SL-RLC1 handling during L2 Relay UE RRC reestablishment Huawei, HiSilicon CR Rel-17 38.331 17.6.0 4332 - F NR\_SL\_relay-Core

[R2-2310599](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5C38331_CR4337_%28Rel-17%29_R2-2310599_Correction%20on%20SUI%20for%20sidelink%20relay.docx) Correction on SUI for sidelink relay ZTE, Sanechips CR Rel-17 38.331 17.6.0 4337 - F NR\_SL\_relay-Core

[R2-2310600](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310600_Corrections%20on%20TS38.331%20for%20SL%20relay.docx) Correction on TS 388.331 for sidelink discovery ZTE, Sanechips CR Rel-17 38.331 17.6.0 4338 - F NR\_SL\_relay-Core

[R2-2310701](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310701%20ReconfFailureR17.docx) Handling of Relay UE’s reconfiguration failure Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_SL\_relay-Core

[R2-2310758](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310758%20Applicability%20of%20SIB12%20and%20preconfiguration.docx) Preconfiguration applicability in relay scenarios Nokia, Nokia Shanghai Bell discussion NR\_SL\_relay-Core

[R2-2310816](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310816_38331_CR4352_%28Rel-17%29_RRC%20corrections%20for%20measurement%20reporting%20event%20Y2.docx) RRC corrections for measurement reporting event Y2 China Telecom, Huawei, HiSilicon CR Rel-17 38.331 17.6.0 4352 - D NR\_SL\_relay-Core

[R2-2310838](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CDocs%5CR2-2310838.zip) Correction on sidelink relay RRC Philips International B.V. CR Rel-17 38.331 17.6.0 4353 - F NR\_SL\_relay-Core

[R2-2311220](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2311220%20-%2038.300_CR0719_Rel17_Correction%20on%20the%20SidelinkUEInformationNR%20message.docx) Correction on the SidelinkUEInformationNR message Ericsson CR Rel-17 38.300 17.6.0 0719 - F NR\_SL\_relay-Core

=> Postponed

### 6.2.2 User plane corrections

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

[R2-2309685](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309685_38351_CR0026_%28REL-17%29%20-Align%20terminology%20of%20PC5%20Relay%20RLC%20channel.docx) Align terminology of PC5 Relay RLC channel OPPO CR Rel-17 38.351 17.6.0 0026 - F NR\_SL\_relay-Core

* Not pursued

Discussion:

ZTE note that this terminology is also used in the stage 2 spec.

Huawei indicate that there is a definition in the RRC spec for “PC5 Relay RLC Channel”.

Apple think we do not need the CR. OPPO think this concern was expressed in Rel-18 and there is an attempt to align the Rel-17 spec with where we are going in Rel-18.

Apple understand that ingress and egress just define the direction of the channel, and 2the same channel concept can be used by both directions.

Samsung indicate that the definitions are there in 38.300, and they think the “egress” and “ingress” modifiers are clear.

[R2-2310353](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310353%2038321_R17_relay_Correction_Destination_index.docx) Clarifications on the Destination Index usage in SL BSR Apple CR Rel-17 38.321 17.6.0 1680 - F NR\_SL\_relay-Core

* Postponed

Discussion:

NEC wonder if the MAC is the correct spec to add the first note, or if it should be in RRC with the SUI message.

Qualcomm wonder if there is a case in the second change where the L2IDs can be the same in different entries.

Nokia think the change is not essential since it only adds a NOTE, and they agree that maybe the first note should be in the RRC CR.

Huawei understand that the first change is already reflected in the RRC spec, and it should be clear that the total number does not exceed 32. For the second change, they have the same understanding as Qualcomm that the same L2ID can be reported twice in the signalling format, but the UE will not actually report it twice because the L2IDs for legacy and relay operation are different.

Apple understand that the RRC spec defines the max ID as 32, but they think it is not clear that the total limit is 32; they would be OK to clarify in either spec. On the second issue, they wonder about L2 vs. L3 relay and whether they can have the same L2ID. Huawei understand that the link will be established for one purpose: L2 or L3 or V2X, meaning that the L2ID will be different for different services.

Xiaomi think even if one UE supports L2 and L3, the ID will be different, as confirmed by LS from SA2 earlier. So they think the second change is not needed. For the first note, they think the RRC spec is already adequately clear.

ZTE also think L2 and L3 will have different L2IDs and RSCs.

Apple think on the first change, there is no restriction on the number of destinations from the UE perspective.

Ericsson wonder about the second note: Is the intention that the 32 entries will be filled with unique values by the network? If so, they understand that there is no issue either for the first or second note.

Huawei indicate that the number is for the UE reporting in the resource request, and there is no explicit network control; the maximum number is calculated by the UE and there may be some ambiguity. They are OK with the first NOTE proposed in the CR.

Xiaomi checked the SL BSR MAC CE, and the destination field is 5 bits, so it is intrinsically limited to 32.

Apple indicate there is such a note in the LTE MAC spec.

Ericsson are not clear what the problem is.

NEC think some clarification is needed about whether the UE should report no more than 32 destination IDs, or the network cannot generate more than 32 indices.

vivo think Ericsson’s point is valid and the clarification may not be needed.

InterDigital think there is some benefit to aligning with the LTE spec.

## 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: 2 tdocs

### 6.4.1 Stage 3 corrections

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).

[R2-2310693](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310693.docx) Correction of existing SSR IEs in A-GNSS for BDS system CATT, CAICT discussion Rel-17

[R2-2309609](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309609_37355_CR0466_%28Rel-17%29.docx) Correction of existing SSR IEs in A-GNSS for BDS system CATT, CAICT, CMCC, China Telecom, China Unicom, Huawei, ZTE Corporation, MediaTek Inc., OPPO, xiaomi, vivo, Spreadtrum CR Rel-17 37.355 17.6.0 0466 - F NR\_pos\_enh-Core

* Revised in R2-2311263

[R2-2311263](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2311263_37355_CR0466r1_%28Rel-17%29-revision%20of%20R2-2309609.docx) Correction of existing SSR IEs in A-GNSS for BDS system CATT, CAICT, CMCC, China Telecom, China Unicom, Huawei, ZTE Corporation, MediaTek Inc., OPPO, xiaomi, vivo, Spreadtrum CR Rel-17 37.355 17.6.0 0466 1 F NR\_pos\_enh-Core

Discussion:

Ericsson would like some more discussion, but they understand that this is for direct satellite distribution and not needed in LPP.

Nokia note that the coversheet indicates the fields are introduced because they are lacking in RTCM, so they see it as an enhancement rather than a correction.

CATT think it can be discussed offline, and they understand that if devices need to receive the signal from the satellite without the correction data, it increases the receiver cost.

Qualcomm agree with Ericsson and Nokia; they understand that the CR intends to apply the corrections to B1C, and they think this could be done with a simple flag applying the iod to B1C. They think the added fields are unnecessary and cannot be used by the UE, because it does not know which messages the LMF is using.

Swift agree with Ericsson and Qualcomm; they also have some concern about backward compatibility.

CATT would still prefer to use the new IEs; they think the server cannot provide the SSR corrections directly otherwise. Qualcomm agree this is true, but they think providing the correction for B1C ephemeris just requires the flag.

* [AT123bis][415][POS] BDS B1C corrections (CATT)

 Scope: Discuss the proposed changes from R2-2311263 and determine if there is an agreeable way forward.

 Intended outcome: Report to Thursday CB session in R2-2311372

 Deadline: Wednesday 2023-10-11 2000 CST

[R2-2309627](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309627%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 0470 - F NR\_pos\_enh-Core

* Postponed

[R2-2309919](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309919%20Issue%20on%20dl-prs-ResourceSetPeriodicityReq-r17.docx) Issue on dl-prs-ResourceSetPeriodicityReq-r17 Samsung discussion Rel-17 NR\_pos\_enh-Core

[R2-2309920](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309920_Addition%20of%20reference%20SCS%20for%20dl-prs-ResourceSetPeriodicityReq-r17.docx) Addition of reference SCS for dl-prs-ResourceSetPeriodicityReq-r17 Samsung CR Rel-17 37.355 17.6.0 0471 - F NR\_pos\_enh-Core

* Not pursued

Discussion:

vivo think the issue is valid, but they understand the LMF is aware of the SCS from the SSB of the serving cell, so they think it is enough to add a clarification of the interpretation of the SCS. Huawei agree, and they understand from RAN3 colleagues that the LMF can know the SCS.

ZTE think the LMF cannot know the current cell when the UE is in RRC\_INACTIVE; they see that an alternative solution would be to let the UE report the timing at ms granularity.

Ericsson think an LMF will not look into the value specifically for each UE, and they do not see that a correction is needed; they would be more comfortable with the clarification proposed by vivo.

OPPO agree with ZTE’s approach to include the time units in ms.

Samsung think vivo’s suggestion does not solve the problem, because in NRPPa the SCS information can include multiple values, and there could be ambiguity. As a compromise, they can accept indicating the timing in ms as suggested by ZTE.

Qualcomm think no change is needed; they would be OK with the suggestion from vivo, and they think the LMF needs to know the SCS.

Apple and Intel agree with Qualcomm and would be OK with vivo’s proposal.

Samsung think in vivo’s solution, there is no way for the LMF to indicate the SCS to a non-serving gNB.

ZTE think the UE should be able to report the time units as ms, which would avoid NRPPa impact because the LMF can send the gNBs the actual timing. CMCC agree with ZTE.

Intel understand that the parameters came from RAN1 and we should not change the timing without guidance from them.

OPPO think in vivo’s CR, it is not quite clear why the LMF is aware of the SSB; they would like some time to check offline.

CATT agree with vivo’s approach; they understand that the LMF can collect the SCS in the TRP information exchange.

Nokia think no additional signalling is needed, but a clarification would be OK.

[R2-2310545](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310545%20Discussion%20on%20LocationMeasurementIndication%20procedure%20for%20positioning.docx) Discussion on LocationMeasurementIndication procedure for positioning ZTE Corporation discussion Rel-17 NR\_pos\_enh-Core

[R2-2310575](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310575%20Correction%20on%20LocationMeasurementIndication%20procedure%20for%20positioning.docx) Correction on LocationMeasurementIndication procedure for positioning ZTE Corporation CR Rel-17 38.331 17.6.0 4336 - F NR\_pos\_enh-Core

Discussion:

Chair understands that this will result in triggering the stop procedure when the MAC CE has been triggered. Huawei have the same understanding and think the change is not correct.

Qualcomm think the existing text is confusing and the change is more logical; they see that the current text can lead to a situation where the stop is never sent.

Ericsson think we need to understand the motivation better. They think the idea is that if both legacy and preconfigured MGs are configured, the legacy gaps may never be stopped, and this might be an issue, but they agree with Huawei that cancelling the MAC CE should also stop the activation.

ZTE agree with Ericsson’s summary of the intention; they think the stop procedure is needed when the UE does not need to measure PRS any more.

vivo think the issue is valid, but some precondition is needed to prevent the stop from always being triggered.

Qualcomm think we made a mistake by mixing the preconfigured gap with the stop criteria; they understand that if there is a start there must be a stop, and with the current text, the stop may not happen.

Ericsson think we send a stop in the current text.

Huawei think the first change could be replaced by removing the list of examples.

ZTE indicate after some offline discussion, there is a view that the issue is valid but companies want some time to check the wording.

* [AT123bis][417][POS] LocationMeasurementIndication procedure (ZTE)

 Scope: Check the wording for the issue raised in R2-2310575 and converge on an agreeable version.

 Intended outcome: Agreeable CR in R2-2311377

 Deadline: Wednesday 2023-10-11 2000 CST

[R2-2310616](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310616%20Clarification%20on%20the%20field%20description%20of%20dl-prs-ResourceSetPeriodicityReq.docx) Clarification on the field description of dl-prs-ResourceSetPeriodicityReq vivo draftCR Rel-17 37.355 17.6.0 F NR\_pos\_enh-Core

* [AT123bis][416][POS] dl-prs-ResourceSetPeriodicityReq clarification (vivo)

 Scope: Discuss the clarification proposed in R2-2310616 and determine if it is an acceptable way forward or if something else (e.g., explicit timing) is needed.

 Intended outcome: Report to Thursday CB session in R2-2311373

 Deadline: Wednesday 2023-10-11 2000 CST

[R2-2310644](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310644%20Correction%20to%20activated%20measurement%20gap%20and%20PPW_final.docx) Correction to activated measurement gap and PPW Huawei, HiSilicon CR Rel-17 38.321 17.6.0 1685 - F NR\_pos\_enh-Core, NR\_MG\_enh-Core

* Not pursued

Discussion:

Ericsson think this is more of an editorial correction.

Huawei think if there are other MAC changes, we can merge with them, but this may be the only MAC change.

Intel agree it is editorial and should not be pursued.

ZTE agree with Intel.

[R2-2310851](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310851%20PeriodicCR%20and%20HAGNSS.docx) Missing finer periodicities than 1s and HA GNSS Metrics field description correction Ericsson CR Rel-17 37.355 17.6.0 0474 - F NR\_pos\_enh-Core

* To be revised to include only the field description correction

Discussion:

Ericsson understand that without the change of periodicities, we cannot meet the finer latency requirements.

Qualcomm are not against the concept but do not see it as a correction. They understand that there are changes to the deferred MT-LR procedure in CT4 but do not see a connection to LPP.

Ericsson understand that the first report will be at the scheduled location time and the second according to the periodicity, so there is a connection between the two. Qualcomm agree but understand that the periodicity in question is configured in SS messages, not by LPP. They understand that in LTE and NR, periodic reporting is purely an SS feature.

OPPO are not sure where the requirement for this change comes from.

Intel think the latency requirement can be met without the change, so they agree with Qualcomm that it is an enhancement.

CATT note that the coversheet says Rel-18; they are OK with a Rel-18 change. They do not think RAT-independent positioning methods will be affected, because it targets IIoT.

vivo think the field description issue is valid; the current description is wrong.

Ericsson have a different understanding from Qualcomm on the relationship between periodic reporting and scheduled location time. They understand that the CT4 specs include sub-1s requests that we would not be able to handle; they expect an LS and think we could await that and discuss offline in the meantime. They also confirm that Rel-18 on the coversheet is a mistake, and they understand that it applies to both RAT-dependent and RAT-independent methods.

Qualcomm still think this is not a Rel-17 correction.

* [AT123bis][418][POS] Field description correction for HA-GNSS metrics (Ericsson)

 Scope: Revise the CR in R2-2310851 to include only the field description correction and check the resulting CR.

 Intended outcome: Agreed-in-principle CR (without CB if possible) in R2-2311378

 Deadline: Wednesday 2023-10-11 2000 CST

[R2-2310909](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310909_%28TEG%20Capability%29.docx) Correction to UE TEG Capability Qualcomm Incorporated CR Rel-17 37.355 17.6.0 0475 - F NR\_pos\_enh-Core

* Agreed in principle

Withdrawn/Not available

R2-2310913 Updates for the consumption of posSIBs assistance data element Ericsson, Intel Corporation CR Rel-17 37.355 17.6.0 0476 - F NR\_pos\_enh-Core Withdrawn

### 6.4.2 Stage 2 corrections

A single CR with miscellaneous corrections is encouraged. Small editorial corrections should be sent directly to the CR rapporteur. This agenda item will be handled at lower priority.

[R2-2310997](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310997%20posSIB.docx) Updates for the consumption of posSIBs assistance data element Ericsson, Intel Corporation, AT&T CR Rel-17 38.305 17.6.0 0147 - F NR\_pos\_enh-Core

* Not pursued

Discussion:

Samsung agree with the intention but have some concern with the last sentence; they think the UE cannot use the posSIB for standalone because by definition it does not involve network AD.

OPPO think a smart UE will only use proper AD for the positioning method and this could be left to implementation.

Qualcomm think this is not essential, but if it is wanted, the wording can be improved; it should be phrased from the UE point of view. They also think that the last sentences on standalone are not needed.

Huawei agree that it is not essential, because the UE and LMF will never have different understandings of the AD that the UE is using. For standalone mode, they think it is up to the UE what to do.

Ericsson indicate the main intention is that not all methods can be used standalone, and the UE should not be permitted to use non-standalone methods in a standalone way with the AD from the posSIBs.

Lenovo are not convinced that this is needed. If it is essential, they think it is essential from Rel-15, otherwise we should not have it in Rel-17 either.

CATT think it is clear in stage 2 which methods can be used standalone. Chair thinks a UE that tries to do DL-TDOA standalone is in violation of stage 2. Ericsson agree but think the requirements we have on the AD were written from a unicast point of view, and they agree with Lenovo that it could be introduced from Rel-15.

Ericsson think stage 2 indicates the supported positioning modes, but in their view it is not absolutely clear what is allowed with broadcast signalling since the requirements were written with dedicated signalling in mind. They think some clarification is needed but the wording could be discussed.

Qualcomm think from the UE point of view, there is no difference between AD received point-to-point or broadcast, and they do not think the change adds value. They are concerned that the CR could invite more corrections later.

Huawei agree with Qualcomm, and they wonder why the UE cannot do standalone DL-TDOA without the network’s knowledge.

Intel think since stage 2 only mentions standalone mode for the methods for which it is supported, it is not absolutely clear today.

Qualcomm think we do not say what is not supported, but for each method we mention the modes that are supported.

Withdrawn/Not available

R2-2310852 Updates for the consunmption of posSIBs assistance data element Ericsson, Intel Corporation CR Rel-17 38.305 17.6.0 0145 - F NR\_pos\_enh-Core Withdrawn

# 7 Rel-18

## 7.2 Expanded and improved NR positioning

(NR\_pos\_enh2; leading WG: RAN1; REL-18; WID: [RP-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.

Incoming LSs with RAN2 in Cc:

[R2-2309406](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309406_C1-236562.docx) LS on LPP message and supplementary service event report over a user plane connection between UE and LMF (C1-236562; contact: Ericsson) CT1 LS in Rel-18 5G\_eLCS\_Ph3 To:SA2 Cc:SA3, RAN2, CT4

[R2-2309452](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309452_R4-2314357.docx) Reply LS on single measurement gap for DL PRS with Rx Hopping (R4-2314357; contact: Xiaomi) RAN4 LS in Rel-18 NR\_pos\_enh2-Core To:RAN1 Cc:RAN2

[R2-2309477](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309477_S2-2310025.docx) Reply LS on Reply LS on security aspects for Ranging/Sidelink Positioning (S2-2310025; contact: Xiaomi) SA2 LS in Rel-18 Ranging\_SL To:SA2 Cc:RAN2

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

[R2-2309409](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309409_R1-2308349.docx) Reply LS on LPHAP (R1-2308349; contact: Huawei) RAN1 LS in Rel-18 NR\_pos\_enh2-Core To:RAN2 Cc:RAN3, RAN4

[R2-2309419](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309419_R1-2308559.docx) LS on Priority Handling for SL Positioning (R1-2308559; contact: Intel) RAN1 LS in Rel-18 NR\_pos\_enh2 To:RAN2

[R2-2309423](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309423_R1-2308571.docx) LS on the longer PRS/SRS periodicity for LPHAP (R1-2308571; contact: Huawei) RAN1 LS in Rel-18 NR\_pos\_enh2-Core To:RAN2, RAN3

[R2-2309453](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309453_R4-2314358.docx) LS on SL positioning and CPP measurements report mapping (R4-2314358; contact: CATT) RAN4 LS in Rel-18 NR\_pos\_enh2-Core To:RAN2, RAN3 Cc:RAN1

[R2-2309454](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309454_R4-2314360.docx) Reply LS on LPHAP (R4-2314360; contact: Huawei) RAN4 LS in Rel-18 NR\_pos\_enh2 To:RAN2 Cc:RAN1, RAN3

LS on PRUs (handled in offline [402])

[R2-2309427](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309427_R1-2308644.docx) Reply LS on PRU Procedures (R1-2308644; contact: CATT) RAN1 LS in Rel-18 NR\_pos\_enh2-Core, 5G\_eLCS\_Ph3 To:SA2, RAN2, RAN3 Cc:RAN4

Other incoming LSs and draft replies from contact company

[R2-2309428](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309428_R1-2308646.doc) LS on TRP ID for positioning with bandwidth aggregation (R1-2308646; contact: ZTE) RAN1 LS in Rel-18 NR\_pos\_enh2 To:RAN2

[R2-2309429](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309429_R1-2308649.docx) LS on RSRP based TA validation for LPHAP (R1-2308649; contact: Huawei) RAN1 LS in Rel-18 NR\_pos\_enh2-Core To:RAN2

[R2-2309637](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309637%20Draft%20reply%20LS%20on%20LPHAP%20TA%20validation_v00.doc) Draft reply LS on LPHAP TA validation Huawei, HiSilicon discussion Rel-18 NR\_pos\_enh2 To:RAN1

[R2-2309430](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309430_R1-2308651.docx) LS on the resource selection window for Scheme 2 in a dedicated resource pool for positioning (R1-2308651; contact: Qualcomm) RAN1 LS in Rel-18 NR\_pos\_enh2 To:RAN2 Cc:SA2

[R2-2309474](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309474_S2-2309926.docx) Response LS to RAN WG2 on reporting positioning measurements taken in RRC\_IDLE (S2-2309926; contact: CATT) SA2 LS in Rel-18 NR\_pos\_enh2, 5G\_eLCS\_Ph3 To:RAN2 Cc:RAN1

[R2-2309597](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309597%20Reply%20LS%20to%20SA2%20on%20reporting%20positioning%20measurements%20taken%20in%20RRC_IDLE.docx) Reply LS to SA2 on reporting positioning measurements taken in RRC\_IDLE CATT LS out Rel-18 NR\_pos\_enh2, 5G\_eLCS\_Ph3 To:SA2

[R2-2309465](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309465_R4-2314483.docx) LS on PRS/RRM measurement when eDRX cycle > 10.24s (R4-2314483; contact: Ericsson) RAN4 LS in Rel-18 NR\_pos\_enh2-Core To:RAN2

[R2-2311265](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2311265%20LS.docx) LS on PRS/RRM measurement when eDRX cycle > 10.24s Ericsson LS out Rel-18 NR\_pos\_enh2 To:RAN4

Work plan

[R2-2309596](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309596%20Work%20Plan%20for%20Rel-18%20WI%20on%20Expanded%20and%20Improved%20NR%20Positioning.docx) Work Plan for Rel-18 WI on Expanded and Improved NR Positioning CATT, Intel Corporation, Ericsson Work Plan Rel-18

Draft reply on PRUs

[R2-2309598](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309598%20%5BDraft%5DReply%20LS%20on%20Reply%20LS%20on%20PRU%20Procedures.doc) [Draft]Reply LS on Reply LS on PRU Procedures CATT LS out Rel-18 NR\_pos\_enh2 To:RAN1 Cc:RAN3, RAN4, SA2

* [AT123bis][402][POS] PRUs (CATT)

 Scope: Email to discuss the incoming LS in R2-2309427 and draft reply in R2-2309598, along with the contributions in R2-2310854 and R2-2310920 and P1 of R2-2309608, reply and evaluate the RAN2 impact for PRU support.

 Intended outcome: Reply LS in R2-2311375 and report to Thursday CB session in R2-2311376

 Deadline: Wednesday 2023-10-11 1900 CST

Other draft replies

[R2-2309599](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309599%20Reply%20LS%20on%20TRP%20ID%20for%20positioning%20with%20bandwidth%20aggregation.doc) Reply LS on TRP ID for positioning with bandwidth aggregation CATT LS out Rel-18 NR\_pos\_enh2 To:RAN1

Running CRs

[R2-2309600](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309600%20LPP%20running%20CR%20for%20LPHAP.docx) LPP running CR for LPHAP CATT draftCR Rel-18 37.355 17.6.0 B NR\_pos\_enh2

[R2-2309601](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309601%20LPP%20running%20CR%20for%20Carrier%20Phase%20Positioning.docx) LPP running CR for Carrier Phase Positioning CATT draftCR Rel-18 37.355 17.6.0 B NR\_pos\_enh2

[R2-2309602](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309602%20LPP%20running%20CR%20for%20bandwidth%20aggregation.docx) LPP Running CR for bandwidth aggregation CATT draftCR Rel-18 37.355 17.6.0 B NR\_pos\_enh2

[R2-2309603](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309603%20LPP%20running%20CR%20for%20RAT-dependent%20integrity.docx) LPP running CR for RAT-dependent integrity CATT draftCR Rel-18 37.355 17.6.0 B NR\_pos\_enh2

[R2-2309604](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309604%20LPP%20running%20CR%20for%20Redcap%20Positioning.docx) LPP Running CR for Redcap positioning CATT draftCR Rel-18 37.355 17.6.0 B NR\_pos\_enh2

[R2-2309632](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309632%20Draft%20running%20MAC%20CR%20for%20LPHAP_final.docx) Running MAC CR for LPHAP Huawei, HiSilicon draftCR Rel-18 38.321 17.6.0 NR\_pos\_enh2

[R2-2309633](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309633%20Draft%20running%20MAC%20CR%20for%20sidelink%20positioning_final.docx) Running MAC CR for Sidelink Positioning Huawei, HiSilicon draftCR Rel-18 38.321 17.6.0 NR\_pos\_enh2

[R2-2309635](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309635%20Draft%20Running%20MAC%20CR%20for%20CA%20positioning_final.docx) Running MAC CR for CA positioniing Huawei, HiSilicon draftCR Rel-18 38.321 17.6.0 NR\_pos\_enh2

[R2-2309636](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309636%20Draft%20Running%20MAC%20CR%20for%20REDCAP%20positioning_final.docx) Running MAC CR for REDCAP positioning Huawei, HiSilicon draftCR Rel-18 38.321 17.6.0 NR\_pos\_enh2

[R2-2309667](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309667%20Running%2038300%20CR%20for%20sidelink%20positioning.docx) Running 38300 CR for sidelink positioning vivo discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2310860](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310860%20SLRRC.docx) Rapporteur CR for Sidelink Positioning RRC Changes Ericsson discussion Rel-18

[R2-2310861](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310861%20CPP.docx) Rapporteur CR for CPP Positioning RRC Changes Ericsson draftCR Rel-18 38.331 17.6.0 B NR\_pos\_enh2

[R2-2310862](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310862%20recap.docx) Rapporteur CR for Redcap Positioning RRC Changes Ericsson draftCR Rel-18 38.331 17.6.0 B NR\_pos\_enh2

[R2-2310863](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310863%20BWA.docx) Rapporteur CR for bandwidth aggregation Ericsson draftCR Rel-18 38.331 17.6.0 B NR\_pos\_enh2

[R2-2310911](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310911_%28Running%20Stage%202%20CR%29_v02.docx) Running Stage 2 CR for 'Expanded and improved NR positioning' Qualcomm Incorporated draftCR Rel-18 38.305 17.6.0 B NR\_pos\_enh2

[R2-2310980](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310980%20Running%20CR%20for%20RRC.docx) Running CR for Positioning Ericsson draftCR Rel-18 38.331 17.6.0 B NR\_pos\_enh2

* [AT123bis][403][POS] LPP CRs (CATT)

 Scope: Check and update the Rel-18 positioning CRs to 37.355.

 Intended outcome: Endorsable CRs

 Deadline: Thursday 2023-10-12 2000 CST

* [AT123bis][404][POS] Positioning MAC CRs (Huawei)

 Scope: Check and update the Rel-18 positioning CRs to 38.321.

 Intended outcome: Endorsable CRs

 Deadline: Thursday 2023-10-12 2000 CST

* [AT123bis][405][POS] Positioning RRC CRs (Ericsson)

 Scope: Check and update the Rel-18 positioning CRs to 38.331.

 Intended outcome: Endorsable CRs

 Deadline: Thursday 2023-10-12 2000 CST

* [AT123bis][406][POS] Positioning 38.305 CR (Qualcomm)

 Scope: Check and update the Rel-18 positioning CR to 38.305.

 Intended outcome: Endorsable CR

 Deadline: Thursday 2023-10-12 2000 CST

* [AT123bis][407][POS] Positioning 38.300 CR (vivo)

 Scope: Check and update the Rel-18 positioning CR to 38.300.

 Intended outcome: Endorsable CR

 Deadline: Thursday 2023-10-12 2000 CST

TS 38.355

[R2-2310218](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310218%20SLPP%20considerations.docx) Further considerations on SLPP specification Intel Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2310219](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310219%2038.355%20TP%20on%20SLPP%20sessino%20handling.docx) TS38.355 TP on SLPP session and session procedure Intel Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2310220](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310220%2038.355%20TP%20on%20ASN1.docx) TS38.355 TP on ASN.1 part Intel Corporation discussion Rel-18 NR\_pos\_enh2

R2-2310221 TS38.355 TP on SLPP procedure Intel Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2310222](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CDocs%5CR2-2310222.zip) TS 38.355 v1.1.0 Intel Corporation draft TS Rel-18 38.355 1.1.0 NR\_pos\_enh2

UE capabilities

[R2-2310444](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310444%20Discussion%20on%20R18%20positioning%20UE%20capabilities_V2.doc) Discussion on R18 positioning UE capabilities Beijing Xiaomi Mobile Software discussion Rel-18

Withdrawn/Not available

R2-2310864 Running RRC CR for Positioning Ericsson CR Rel-18 38.331 17.6.0 4355 - B NR\_pos\_enh2 Withdrawn

### 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.

Including report of [Post123][401][POS] RAN2 impact from SL-PRS parameters (Intel)

Including report of [Post123][403][POS] Sidelink positioning MAC issues (Huawei)

Email discussion reports

[R2-2310216](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310216.docx) Report of [Post123][401][POS] RAN2 impact from SL-PRS parameters (Intel) Intel Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2309634](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309634%20Summary%20of%20%5BPost123%5D%5B403%5D%5BPOS%5D%20Sidelink%20positioning%20MAC%20issues%20%28Huawei%29.docx) Summary of [Post123][403][POS] Sidelink positioning MAC issues (Huawei) Huawei, HiSilicon discussion Rel-18 NR\_pos\_enh2

Stage 3 SLPP proposals (considered in offline [401])

[R2-2309605](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309605%20SLPP%20and%20RRC%20Signaling%20Design%20for%20SL%20positioning.docx) SLPP and RRC Signaling Design for SL positioning CATT discussion Rel-18

[R2-2310014](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310014%20Discussion%20on%20sidelink%20positioning.docx) Discussion on sidelink positioning Spreadtrum Communications discussion Rel-18

[R2-2310194](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310194.docx) SLPP signalling and procedures MediaTek Inc. discussion Rel-18 NR\_pos\_enh2-Core

[R2-2310347](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310347-SL-POS-procedures-v1.docx) UE only SL positioning procedure Apple discussion Rel-18 NR\_pos\_enh2

[R2-2310691](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310691.docx) Discussion of SLPP / LPP signalling procedures Nokia Netherlands discussion Rel-18

[R2-2310912](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310912%20_%28SLPP%20Details%29.docx) Further Considerations on SLPP Design Qualcomm Incorporated discussion

* [AT123bis][401][POS] Progressing TS 38.355 (Intel)

 Scope: F2F offline on principles and TPs for 38.355, considering R2-2309605 / P21 of R2-2309759 / R2-2310014 / R2-2310194 / R2-2310347 / P8-P9 of R2-2310543 / R2-2310691 / R2-2310912 (not all proposals of all documents will be handled)

 Intended outcome: Report to Thursday CB session in R2-2311374

 Deadline: Wednesday 2023-10-11 1900 CST

 Schedule: Monday 2023-10-09 1700-1800 CST, in Brk3

Other documents

[R2-2309668](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309668%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

[R2-2310430](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310430%20Remaining%20issues%20on%20lower%20layer%20aspects%20for%20R18%20sidelink%20positioning%20.docx) Remaining issues on lower layer aspects for R18 sidelink positioning LG Electronics Inc. discussion Rel-18

[R2-2309578](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309578_Sidelink_Fraunhofer.docx) UE Positioning using Sidelink Fraunhofer IIS, Fraunhofer HHI discussion

[R2-2309630](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309630%20Discussion%20on%20higher%20layer%20aspects%20for%20Sidelink%20Positioning_final.docx) Discussion on higher layer aspects for sidelink positioning Huawei, HiSilicon discussion Rel-18 NR\_pos\_enh2

[R2-2309631](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309631%20Discussion%20on%20lower%20layer%20aspects%20for%20sidelink%20positoining_final.docx) Discussion on lower layer aspects for SL positioning Huawei, HiSilicon discussion Rel-18 NR\_pos\_enh2

[R2-2309669](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309669%20Discussion%20on%20transmission%20and%20measurement%20of%20SL-PRS.docx) Discussion on transmission and measurement of SL-PRS vivo discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2309741](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309741-Further%20Discussions%20on%20Sidelink%20Positioning%20and%20Ranging.docx) Further discussion on SL positioning and ranging CEWiT discussion

[R2-2309759](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309759%20Discussion%20on%20SL%20positioning.doc) Discussion on SL positioning Xiaomi discussion Rel-18

[R2-2310044](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310044%20Discussion%20on%20UE%20assistance%20information%20for%20SL-PRS.doc) Discussion on UE assistance information for SL-PRS Samsung Electronics Co., Ltd discussion Rel-18 NR\_pos\_enh2

[R2-2310076](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310076%20%287.2.2%29%20open%20issue%20for%20SL%20POS%20.docx) Open issues regarding SLPP session Samsung Guangzhou Mobile R&D discussion

[R2-2310195](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310195.docx) SLPP information forwarding MediaTek Inc. discussion Rel-18 NR\_pos\_enh2-Core

[R2-2310217](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310217.docx) Further considerations on sidelink positioning Intel Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2310275](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310275%20Considerations%20on%20Sidelink%20positioning.doc) Considerations on Sidelink positioning CMCC discussion Rel-18 NR\_pos\_enh2

[R2-2310379](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310379%20Further%20discussion%20on%20sidelink%20positioning.docx) Further discussion on sidelink positioning OPPO discussion Rel-18 NR\_pos\_enh2

[R2-2310429](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310429%20Remaining%20issues%20on%20higher%20layer%20aspects%20for%20R18%20sidelink%20positioning.docx) Remaining issues on higher layer aspects for R18 sidelink positioning LG Electronics Inc. discussion Rel-18

[R2-2310436](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CDocs%5CR2-2310436.zip) Discussion on sidelink positioning InterDigital, Inc. discussion Rel-18 NR\_pos\_enh2-Core

[R2-2310541](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310541%20Discussion%20on%20lower-layer%20related%20sidelink%20positioning.docx) Discussion on lower-layer related sidelink positioning ZTE Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2310543](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310543%20Discussion%20on%20sidelink%20positioning.docx) Discussion on sidelink positioning ZTE Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2310680](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310680.docx) Discussion of resource allocation aspects Nokia Netherlands discussion Rel-18

[R2-2310759](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310759_SL_Pos_Res.docx) Considerations on multiplexing, congestion control and ARP Sony discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2310789](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310789_SLPosDiscussion.docx) SL Positioning Discussion Lenovo discussion Rel-18

R2-2310833 Further discussion on sidelink positioning ROBERT BOSCH GmbH discussion Rel-18 Late

[R2-2310848](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310848.docx) Discussion of session management for SL positioning Nokia Netherlands discussion Rel-18

[R2-2310856](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310856%20SL.docx) Remaining issue for NW involved Sidelink positioning Ericsson discussion Rel-18

[R2-2311032](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2311032_On%20sidelink%20positioning%20discovery%20and%20cap%20exchange.docx) On sidelink positioning discovery and capabilities exchange Philips International B.V. discussion NR\_pos\_enh2

[R2-2311035](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2311035_On%20the%20stability%20of%20Anchor%20UE%20Location.doc) On the stability of Anchor UE location Philips International B.V. discussion NR\_pos\_enh2

### 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.

[R2-2309924](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309924%20Discussion%20on%20RAT-dependent%20integrity.doc) Discussion on RAT-dependent integrity Lenovo discussion Rel-18

[R2-2310415](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310415%20Discussion%20on%20RAT-dependent%20positioning%20integrity.doc) Discussion on RAT-dependent positioning integrity Xiaomi discussion

[R2-2310380](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310380%20Consideration%20on%20RAT-dependent%20positioning%20integrity.docx) Consideration on RAT-dependent positioning integrity OPPO discussion Rel-18 NR\_pos\_enh2

[R2-2310823](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310823%20R18%20NR%20POS%20A723%20RAT%20dependent%20integrity.doc) Discussion on RAT dependent integrity InterDigital Inc. discussion Rel-18

[R2-2310857](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310857%20Integrity.docx) Support for UE-based integrity Ericsson discussion Rel-18

[R2-2310914](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310914_%28integrity%29.docx) Remaining Issues for Integrity of NR Positioning Technologies Qualcomm Incorporated discussion

[R2-2310996](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310996%20Positioning%20Integrity.docx) Signalling about beam related information for positioning integrity Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_pos\_enh2-Core

### 7.2.4 LPHAP

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

[R2-2309606](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309606%20Discussion%20on%20LPHAP.docx) Discussion on LPHAP CATT discussion Rel-18

[R2-2310381](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310381%20Discussion%20on%20the%20leftover%20issues%20of%20LPHAP%20enhancement.docx) Discussion on the leftover issues of LPHAP enhancement OPPO discussion Rel-18 NR\_pos\_enh2

[R2-2309579](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309579_LPHAP_Fraunhofer.docx) Reliable LPHAP position with extended DRX cycle Fraunhofer IIS, Fraunhofer HHI discussion

[R2-2309629](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309629%20Discussion%20on%20LPHAP_final.docx) Discussion on LPHAP Huawei, HiSilicon discussion Rel-18 NR\_pos\_enh2

[R2-2309670](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309670%20Remaining%20issues%20of%20LPHAP.doc) Remaining issues of LPHAP vivo discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2309922](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309922_Discussion%20on%20alignment%20between%20%28e%29DRX%20and%20PRS.docx) Discussion on alignment between (e)DRX and PRS Samsung discussion Rel-18 NR\_pos\_enh2

[R2-2309923](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309923_Discussion%20on%20SRS%20configuration%20in%20RRC_INACTIVE.docx) Discussion on SRS configuration in RRC\_INACTIVE Samsung discussion Rel-18 NR\_pos\_enh2

[R2-2309925](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309925%20Discussion%20on%20low%20power%20high%20accuracy%20positioning.doc) Discussion on low power high accuracy positioning Lenovo discussion Rel-18

[R2-2310223](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310223%20LPHAP.docx) Further considerations on LPHAP Intel Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2310276](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310276%20Further%20considerations%C2%A0on%C2%A0LPHAP.doc) Further considerations on LPHAP CMCC discussion Rel-18 NR\_pos\_enh2

[R2-2310416](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310416%20Discussion%20on%20LPHA%20positioning.doc) Discussion on LPHA positioning Xiaomi discussion

[R2-2310540](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310540%20Discussion%20on%20LPHAP.docx) Discussion on LPHAP ZTE Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2310760](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310760_LPHAP.docx) Considerations on Low Power High Accuracy Positioning Sony discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2310824](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310824%20R18%20NR%20POS%20A724%20LPHAP.doc) Discussion on LPHAP InterDigital Inc. discussion Rel-18

[R2-2310858](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310858%20LPHAP.docx) Remaining issue on Low Power High Accuracy Positioning Ericsson discussion Rel-18

[R2-2310915](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310915_%28LPHAP%29.docx) Remaining issues for LPHAP Qualcomm Incorporated discussion

### 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.

Including report of [Post123][402][POS] RAN2 impact of RAN1-led positioning objectives (Nokia)

Email discussion report

[R2-2310998](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310998%20%5BPost123%5D%5B402%5D%20RAN2%20impact%20of%20RAN1-led%20positioning%20objectives_v13_Rapp.docx) [Post123][402][POS] RAN2 impact of RAN1-led positioning objectives (Nokia) Nokia, Nokia Shanghai Bell report Rel-18 NR\_pos\_enh2-Core

Other documents

[R2-2309926](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309926%20Discussion%20on%20RedCap%2C%20carrier%20phase%20positioning%20and%20PRS%2CSRS%20bandwidth%20aggregation.doc) Discussion on RedCap positioning, carrier phase positioning and PRS/SRS bandwidth aggregation Lenovo discussion Rel-18

[R2-2309607](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309607%20Discussion%20on%20bandwidth%20aggregation%20for%20positioning.docx) Discussion on bandwidth aggregation for positioning CATT discussion Rel-18

[R2-2309608](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309608%20LPP%20and%20RRC%20impacts%20to%20enable%20Carrier%20Phase%20Positioning.docx) LPP and RRC impacts to enable Carrier Phase Positioning CATT discussion Rel-18

[R2-2309671](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309671%20RAN2-related%20issues%20about%20bandwidth%20aggregation.docx) RAN2-related issues about bandwidth aggregation vivo discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2309893](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309893%20Discussion%20on%20RAN1%20led%20positioning%20topics.docx) Discussion on RAN1 led positioning topics Huawei, HiSilicon discussion

[R2-2310346](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310346-on-demand-prs-aggregation-v0.docx) On PRS bandwidth aggregation Apple discussion Rel-18 NR\_pos\_enh2

[R2-2310417](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310417%20Discussion%20on%20carrier%20phase%20positioning%20and%20bandwidth%20aggregation%20for%20positioning.doc) Discussion on carrier phase positioning and bandwidth aggregation for positioning Xiaomi discussion

[R2-2310542](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310542%20Discussion%20on%20BW%20aggregation%20and%20RedCap%20positioning.docx) Discussion on BW aggregation and RedCap positioning ZTE Corporation discussion Rel-18 NR\_pos\_enh2

[R2-2310761](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310761_RedCap.docx) Discussion on Frequency hopping for Positioning for RedCap Ues Sony discussion Rel-18 FS\_NR\_pos\_enh2

[R2-2310825](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310825%20R18%20NR%20POS%20A725%20Others.doc) Discussion on positioning for RedCap positioning, carrier phase positioning, and bandwidth aggregation for positioning InterDigital Inc. discussion Rel-18

[R2-2310859](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310859%20RAN1LedTopic.docx) Discussion based upon RAN1 agreements on CPP, RedCap, Bandwidth aggregation Ericsson discussion Rel-18

[R2-2310916](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310916_%28PRS%20Aggregation%29.docx) Configuration Enhancements for DL-PRS Aggregation Qualcomm Incorporated discussion

## 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.

Open issues document

[R2-2309755](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309755%20remaining%20open%20issues%20for%20SL%20relay.docx) Report of [Post123][Relay] Remaining open issues (LG) LG Electronics France report Rel-18 NR\_SL\_relay\_enh-Core

Running CRs

[R2-2309683](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309683%20-%20Running%20CR%20of%20TS%2038.351%20for%20SL%20Relay%20enhancement.docx) Running CR of TS 38.351 for SL Relay enhancement OPPO draftCR Rel-18 38.351 17.6.0 B NR\_SL\_relay\_enh-Core

[R2-2309911](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309911_38.331_CR%234317_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 4317 - B NR\_SL\_relay\_enh-Core

[R2-2310166](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310166%20Draft%2038.323%20running%20CR%20for%20enhanced%20NR%20sidelink%20relay.docx) Draft 38.323 running CR for enhanced NR sidelink relay InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core

R2-2310359 Running CR of TS 38.321 for SL Relay enhancement Apple draftCR Rel-18 38.321 17.6.0 B NR\_SL\_relay\_enh-Core Late

[R2-2310484](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310484%20RRC%20running%20CR%20for%20Rel-18%20multi-path%20support.docx) RRC running CR for Rel-18 multi-path support Huawei, HiSilicon draftCR Rel-18 38.331 17.6.0 B NR\_SL\_relay\_enh-Core R2-2309310

[R2-2310485](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310485%20RRC%20open%20issues%20for%20Rel-18%20Multi-path.docx) RRC open issues for Rel-18 Multi-path Huawei, HiSilicon discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2311025](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2311025%20-%2038.304_draftCR_Introduction%20of%20Rel-18%20support%20for%20SL%20Relay%20Enhancements.docx) Introduction of Rel-18 support for SL Relay Enhancements Ericsson España S.A. draftCR Rel-18 38.304 17.6.0 B NR\_SL\_relay\_enh

[R2-2311264](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2311264_Introduction%20of%20NR%20sidelink%20U2U%20relay.docx) Introduction of NR sidelink U2U relay vivo draftCR Rel-18 38.331 17.6.0 B NR\_SL\_relay\_enh-Core

* [AT123bis][408][Relay] SRAP CR (OPPO)

 Scope: Check and update the Rel-18 relay CR to 38.351.

 Intended outcome: Endorsable CR

 Deadline: Thursday 2023-10-12 2000 CST

* [AT123bis][409][Relay] Relay RRC CR on service continuity (MediaTek)

 Scope: Check and update the Rel-18 relay CR to 38.331 on service continuity.

 Intended outcome: Endorsable CR

 Deadline: Thursday 2023-10-12 2000 CST

* [AT123bis][410][Relay] Relay PDCP CR (InterDigital)

 Scope: Check and update the Rel-18 relay CR to 38.323.

 Intended outcome: Endorsable CR

 Deadline: Thursday 2023-10-12 2000 CST

* [AT123bis][411][Relay] Relay MAC CR (Apple)

 Scope: Check and update the Rel-18 relay CR to 38.321.

 Intended outcome: Endorsable CR

 Deadline: Thursday 2023-10-12 2000 CST

* [AT123bis][412][Relay] Relay RRC CR on multi-path (Huawei)

 Scope: Check and update the Rel-18 relay CR to 38.331 on multi-path relay.

 Intended outcome: Endorsable CR

 Deadline: Thursday 2023-10-12 2000 CST

* [AT123bis][413][Relay] Relay idle mode CR (Ericsson)

 Scope: Check and update the Rel-18 relay CR to 38.304.

 Intended outcome: Endorsable CR

 Deadline: Thursday 2023-10-12 2000 CST

* [AT123bis][414][Relay] Relay RRC CR on UE-to-UE (vivo)

 Scope: Check and update the Rel-18 relay CR to 38.331 on UE-to-UE relay.

 Intended outcome: Endorsable CR

 Deadline: Thursday 2023-10-12 2000 CST

### 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.

Including report of [Post123][406][Relay] Local ID in SRAP (OPPO)

Email discussion report

[R2-2309905](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309905%20-%20Summary%20of%20%5BPost123%5D%5B406%5D%5BRelay%5D%20Local%20ID%20in%20SRAP%20%28OPPO%29.docx) Summary of [Post123][406][Relay] Local ID in SRAP (OPPO) OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core

P3/P4/P5/P6/P7/P8

[R2-2310405](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310405-Remaining%20issues%20for%20U2U%20relay.docx) Remaining issues for U2U relay operation LG Electronics Inc. discussion Rel-18

P1/P2/P3/P4/P5/P6/P7/P8a/P8b/P9/P10/P11 (some topics may go to offline)

[R2-2309975](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309975_Discussion%20on%20U2U%20Relay%20discovery%20and%20%28re%29selection.doc) Discussion on U2U Relay discovery and (re)selection ZTE, Sanechips discussion Rel-18 NR\_SL\_relay\_enh-Core

Potential SA2 issue on local ID management

[R2-2309613](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309613%20Cross%20Group%20Issue%20for%20U2U%20Relay.docx) Cross Group Issue for U2U Relay CATT discussion Rel-18 NR\_SL\_relay\_enh-Core

Other documents

[R2-2309612](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309612%20Disussion%20on%20U2U%20Relay.docx) Discussion on U2U Relay CATT discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2309679](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309679%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

[R2-2309680](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309680%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

[R2-2309817](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309817%20Discussion%20on%20CP%20aspects%20for%20U2U%20relay.docx) Discussion on CP aspects for U2U relay Xiaomi discussion

[R2-2309822](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309822_Remaining%20issues%20on%20U2U%20relay.docx) Remaining issues on U2U relay vivo discussion

[R2-2309885](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309885%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

[R2-2309886](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309886%20Remaining%20issues%20on%20PC5%20radio%20link%20failure%20and%20PC5%20link%20release.docx) Remaining issues on PC5 radio link failure and PC5 link release ASUSTeK discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2309887](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309887%20Remaining%20issue%20on%20E2E%20PC5-RRC%20procedures.docx) Remaining issue on E2E PC5-RRC procedures ASUSTeK discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2309901](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309901%20Discussion%20on%20U2U%20relay_2.doc) Discussion on U2U relay Fujitsu discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2309927](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309927%20Discussion%20on%20L2%20U2U%20relay%20v1.0.docx) Discussion on L2 U2U relay Lenovo discussion Rel-18

[R2-2309970](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309970%20Control%20plane%20issues%20for%20L2%20U2U%20relay.doc) Control plane issues for L2 U2U relay Samsung discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2309976](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309976_Discussion%20on%20U2U%20relay%20L2%20specific%20functionality.doc) Discussion on U2U relay L2-specific functionality ZTE, Sanechips discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2310012](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310012%20Discussion%20on%20UE-to-UE%20relay.doc) Discussion on UE-to-UE Relay Spreadtrum Communications discussion Rel-18

[R2-2310093](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310093%20Discussion%20on%20remaining%20issue%20of%20U2U%20relay.docx) Discussion on remaining issue of U2U relay NEC discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2310139](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310139%20Open%20issues%20on%20QoS.docx) Open issues on QoS for U2U Nokia, Nokia Shanghai Bell discussion NR\_SL\_relay\_enh-Core

[R2-2310167](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310167%20%28R18%20SL%20Relay%20WI_AI792%20U2U%20Relays_Open%29.doc) Open Issues on Discovery, Relay Selection, and SRAP for UE to UE Relays InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2310168](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310168%20%28R18%20SL%20Relay%20WI_AI792%20U2U%20Relay_QoS%29.doc) QoS and Configuration for L2 UE-to-UE Relays InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2310226](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310226%2BDiscussion%20on%20the%20remaining%20issues%20on%20L2%20U2U%20relay.doc) Discussion on the remaining issues on L2 U2U relay China Telecom discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2310256](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310256%20Discussion%20on%20U2U%20SL%20relay.docx) Discussion on U2U SL relay CMCC discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2310348](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310348%20Discussion%20on%20U2U%20relay%20issues.doc) Discussion on remaining issues on UE-to-UE Relay Apple discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2310406](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310406-Control%20plane%20procedure%20for%20U2U%20relay.docx) Control plane procedure for U2U relay operation LG Electronics Inc. discussion Rel-18

[R2-2310486](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310486%20Discussion%20on%20UE-to-UE%20relay.doc) Discussion on UE-to-UE relay Huawei, HiSilicon discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2310597](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310597.docx) Discussion on Open Issues for U2U relay RRC Beijing Xiaomi Mobile Software discussion Rel-18 38.331 NR\_SL\_relay\_enh-Core

[R2-2310613](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310613%20Open%20issues%20on%20U2U.docx) Open issues on U2U Nokia, Nokia Shanghai Bell discussion NR\_SL\_relay\_enh-Core

[R2-2310770](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310770.doc) UE-to-UE relay (re)selection Sony discussion Rel-18 NR\_SL\_relay\_enh

[R2-2310779](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310779-Open%20issues%20for%20Discovery%20and%20Relay%20%28re%29selection.docx) Open issues for Discovery and Relay (re)selection Qualcomm Incorporated discussion NR\_SL\_relay\_enh-Core

[R2-2310780](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310780-%20Layer-2%20specific%20part%20on%20U2U%20Relay.docx) Layer-2 specific part on U2U Relay Qualcomm Incorporated discussion NR\_SL\_relay\_enh-Core

[R2-2310925](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310925_Discussion_on_Relay_reselection_Discovery.docx) Discussion on Relay (re)selection and Discovery Ericsson España S.A. discussion Rel-18

[R2-2310926](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310926_Control_Plane_Procedures_for_L2_U2U_relays.docx) Control Plane Procedures for Layer 2 UE-to-UE Relays Ericsson España S.A. discussion Rel-18

[R2-2311017](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2311017_SL%20Relay_U2U_OpenIssues_FhG.docx) Discussion on remaining issues on U2U Relaying Fraunhofer IIS, Fraunhofer HHI discussion Rel-18 NR\_SL\_relay\_enh

[R2-2311038](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2311038_U2U_relay.docx) Considerations for U2U L2 relay operations Kyocera discussion

[R2-2311114](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CDocs%5CR2-2311114.zip) Discussion on U2U relay Kyoto University, SHARP discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2311174](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2311174%20SRAP%20design%20for%20U2U%20sidelink%20relay.docx) SRAP design for U2U Sidelink Relay: remaining issues Samsung R&D Institute UK discussion

[R2-2311175](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2311175-U2U.doc) remaining issues for U2U relay Sharp discussion Rel-18 NR\_SL\_relay\_enh-Core

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

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

Idle/inactive relay

[R2-2310349](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310349%20Path%20switching%20to%20IDLE%20or%20INACTIVE%20relay%20UE.doc) Discussion on path switching to IDLE/INACTIVE relay Apple discussion Rel-18 NR\_SL\_relay\_enh-Core R2-2307856

Measurement events and emergency cause value

[R2-2309823](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309823_Remaining%20issues%20on%20service%20continuity%20enhancement%20for%20L2%20U2N%20relay.docx) Remaining issues on service continuity enhancement for L2 U2N relay vivo discussion

Section 2.3

[R2-2310702](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310702%20SL%20Relay%20Service%20Continuity.docx) SL Relay service continuity considerations Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2309614](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309614%20Further%20Consideration%20on%20Service%20Continuity%20Enhancements.docx) Further Consideration on Service Continuity Enhancements CATT discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2309971](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309971%20Discussion%20on%20L2%20U2N%20Relay%20service%20continuity.doc) Discussion on L2 U2N Relay service continuity Samsung discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2309977](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309977_Remaining%20issues%20on%20service%20continuity.doc) Further discussion on service continuity for SL relay ZTE, Sanechips discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2310227](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310227%20Additional%20text%20proposal%20for%20the%20introduction%20of%20R18%20SL%20relay%20service%20continuity%20in%20TS%2038.331.docx) Additional text proposal for the introduction of R18 SL relay service continuity in TS 38.331 China Telecom discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2310257](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310257%20Remaining%20issues%20on%20service%20continuity.docx) Remaining issues on service continuity CMCC discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2310286](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310286_Discussion%20on%20Remaining%20Issues%20of%20Service%20Continuity.docx) Discussion on Remaining Issues of Service Continuity NEC Corporation discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2310771](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310771.doc) Service continuity enhancements for UE sidelink relay Sony discussion Rel-18 NR\_SL\_relay\_enh

[R2-2310927](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310927_Discussion_on_Inter_gNB_Service_Continuity.docx) Discussion on Inter-gNB Service Continuity Ericsson España S.A. discussion Rel-18

[R2-2311008](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2311008.docx) Discussion on Service Continuity Huawei, HiSilicon discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2311176](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2311176-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

### 7.9.4 Multi-path relaying

Mechanisms to support multi-path scenarios where a UE is connected to the same gNB using one direct path and one indirect path via 1) Layer-2 UE-to-Network relay, or 2) via another UE (where the UE-UE inter-connection is assumed to be ideal). This agenda item will include a rapporteur contribution summarising open issues from RAN2#121 (invited contribution not counted against the tdoc limit).

Including report of [Post123][407][Relay] Path addition/change in multi-path for scenario 1 (Apple)

Email discussion report

[R2-2310350](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310350%20Summary%20of%20Path%20addition-change%20in%20MP%20Scenario1%20V25_Rapp_final.docx) Summary of [Post123][407][Relay] Path addition/change in multi-path for Scenario 1 Apple discussion Rel-18 NR\_SL\_relay\_enh-Core

Case G in scenario 2 (discussed jointly)

[R2-2310258](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310258%20Discussion%20on%20indrect%20path%20change%20in%20scenario%202.docx) Discussion on indrect path change in scenario 2 CMCC, Huawei, HiSilicon, Qualcomm, ZTE, NEC, Samsung, Lenovo discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2310351](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310351%20Discussion%20on%20indirect-path%20change%20in%20Scenario%202_r2.doc) Discussion on Case G Support in Multi-path Scenario 2 Apple, Ericsson, Nokia, Nokia Shanghai Bell, Kyocera, LG Electronics discussion Rel-18 NR\_SL\_relay\_enh-Core

P1-P12

[R2-2310781](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310781-open%20issues%20for%20MP%20relay.docx) Open issues on multi-path relay for scenario 1 and scenario 2 Qualcomm Incorporated discussion NR\_SL\_relay\_enh-Core

Other documents

[R2-2309588](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309588%20Discussion%20on%20Path%20addition%20and%20change%20for%20multipath%20Scenario-1.docx) Discussion on Path addition and change for multipath Scenario-1 NEC discussion NR\_SL\_enh2

[R2-2309615](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309615_Remaining%20issues%20on%20Multi-path.docx) Remaining issues on Multi-path CATT discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2309681](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309681%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

[R2-2309682](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309682%20-%20Discussion%20on%20user%20plane%20procedure%20of%20multi-path%20Relay.docx) Discussion on user plane procedure of multi-path relay OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2309756](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309756%20Discussion%20on%20issues%20for%20Multi-path%20relaying.doc) Discussion on remaining issues for multi-path relaying LG Electronics France discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2309804](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309804.docx) Discussion on multi-path scenario 1 Xiaomi discussion

[R2-2309805](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309805.docx) Discussion on multi-path scenario 2 Xiaomi discussion

[R2-2309824](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309824_Remaining%20Issues%20for%20Multi-path.docx) Remaining Issues for Multi-path vivo discussion

[R2-2309825](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309825_Authorization%20for%20Multi-path%20Scenario%202.docx) Authorization for Multi-path Scenario 2 vivo, Qualcomm incorporated discussion

[R2-2309888](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309888%20Remaining%20issue%20on%20BSR%20reporting%20for%20Multi-path%20Scenario%202.docx) Remaining issue on BSR reporting for Multi-path Scenario 2 ASUSTeK discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2309928](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309928%20Failure%20handling%20in%20indirect%20path%20addition%20and%20change%20v2.0.docx) Failure handling in indirect path addition and change Lenovo discussion Rel-18

[R2-2309929](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309929%20Discussion%20on%20direct%20path%20addition%20v1.0.docx) Discussion on direct path addition Lenovo discussion Rel-18

[R2-2309978](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309978%20Further%20discussion%20on%20the%20support%20of%20multi-path%20relaying.docx) Further discussion on the support of multi-path relaying ZTE, Sanechips discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2309980](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309980_SLRelay_v1.0.docx) Discussion on remaining issues on multiple path for sidelink relay Samsung discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2310013](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310013%20Discussion%20on%20multi-path%20relaying.doc) Discussion on multi-path relaying Spreadtrum Communications discussion Rel-18

[R2-2310160](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310160%20Discussion%20on%20Multi-path%20relaying.docx) Discussion on Multi-path relaying Lenovo discussion NR\_SL\_relay\_enh-Core

[R2-2310169](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310169%20%28R18%20SL%20Relay%20WI_AI794%20MultipathAspects_UP%29.doc) Remaining User Plane Aspects for Multipath InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2310170](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310170%20%28R18%20SL%20Relay%20WI_AI794%20MultipathAspects_CP%29.doc) Remaining Control Plane Aspects for Multipath InterDigital discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2310259](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310259%20Remaining%20issues%20on%20multi-path.docx) Remaining issues on multi-path CMCC discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2310287](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310287_Discussion%20on%20UP%20Issues%20of%20Multi-path%20Relaying.docx) Discussion on UP Issues of Multi-path Relaying NEC Corporation discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2310352](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310352%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

[R2-2310468](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310468_Discussion%20on%20multi-path%20scenario%201_III.docx) Discussion on multi-path scenario 1 III discussion NR\_SL\_relay\_enh

[R2-2310487](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310487%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

[R2-2310488](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310488%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

[R2-2310772](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310772.doc) Multi-path relaying discussion Sony discussion Rel-18 NR\_SL\_relay\_enh

[R2-2310815](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310815%20Discussion%20on%20control%20plane%20open%20issues%20of%20multi-path%20relaying.docx) Discussion on control plane open issues of multi-path relaying China Telecom discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2310876](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310876%20DIscussion%20on%20Mpath.docx) Discussion on Multi-path Nokia, Nokia Shanghai Bell discussion NR\_SL\_relay\_enh-Core

[R2-2310928](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310928_Discussion_on_multipath%20relays.docx) Discussion on Multipath Relays Ericsson España S.A. discussion Rel-18

[R2-2311039](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2311039_multipath_relay.docx) Considerations for multipath relay operations for Scenario 1 Kyocera discussion

[R2-2311109](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2311109%20Discussion%20on%20user%20plane%20open%20issues%20of%20multi-path%20relaying.docx) Discussion on user plane open issues of multi-path relaying China Telecom discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2311177](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2311177-MP1.doc) remaining issues for multi-path relay Sharp discussion Rel-18 NR\_SL\_relay\_enh-Core

[R2-2311178](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2311178-MP2.doc) scenario 2 specific issues for multi-path relay Sharp discussion Rel-18 NR\_SL\_relay\_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

### 7.24.1 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).

### 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.

[R2-2309684](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309684%20-%20Discussion%20on%20emergency%20cause%20value%20for%20SL%20Relay.docx) Discussion on emergency cause value for SL Relay OPPO discussion Rel-18 NR\_SL\_relay\_enh-Core, TEI18

[R2-2309795](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2309795_Discussion%20on%20MUSIM%20paging%20cause%20forwarding.docx) Discussion on MUSIM paging cause forwarding vivo discussion Rel-18

[R2-2310544](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310544%20Discussion%20on%20issues%20for%20SFN-DFN%20offset%20procedure%20in%2038.331.docx) Discussion on issues for SFN-DFN offset procedure in 38.331 ZTE Corporation discussion Rel-18 TEI18

[R2-2310855](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310855%20Relay.docx) Forwarding on posSIBs relaying to remote UE [PosL2RemoteUE] Ericsson CR Rel-18 38.331 17.6.0 4354 - B TEI18

## 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: -

### 7.25.1 RAN4 led items

### 7.25.2 RAN1 led items

E.g. MC enhancements, DSS

### 7.25.3 Other

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

PRUs (considered in offline [402])

R2-2310854 On the Positioning Reference Units aspects [PRU] Ericsson, vivo discussion Rel-18

[R2-2310920](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202310%20-%20RAN2_123bis%2C%20Xiamen%5CExtracts%5CR2-2310920_%28PRU%20Stage%202%29.docx) Clarification of PRU measurement reporting Qualcomm Incorporated CR Rel-18 38.305 17.6.0 0146 - C 5G\_eLCS\_Ph3