**3GPP TSG-** **RAN2 Meeting #121bis R2-23xxxxx**

**Online, 17-26 April 2023**

**Agenda item:** 6.5.2

**Title:** [Pre121bis][xxx][Relay] Summary of agenda item 6.5.2 on control plane corrections (Huawei)

**Source:** Huawei, HiSilicon

**Document for:** Discussion and decision

1. Introduction

This is to summarize the company contributions in AI 6.5.2.

2. Discussion

## TDoc Classifications and Rapp suggestions

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **TDoc number** | TDoc title | Source | Change summary | Rapp’s suggestions |
| [**R2-2302593**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302593.zip) | Corrections to paging monitoring via Relay UE | Samsung Electronics Co., Ltd | Proposal: Add PagingRecord-v1700 in UuMessageTransferSidelink message. L2 U2N Relay UE includes this when it receives paging cause for the L2 U2N Remote UE in paging message received from gNB. | 331 asn.1 change  The moderator understands the change is not essential. Paging cause was introduced for MUSIM in Rel-17 to assist UE when determine whether to response the paging at the cost of dropping the connection via other SIM. But whether a MUSIM UE supports this paging cause, how to use the paging cause, whether the UE needs to drop other connection to response the paging, etc. are all up to UE implementation, which means supporting paging cause is not an essential requirement for MUSIM UE. Then if a MUSIM UE accesses network via a Relay UE, it can still work without knowing the paging cause.  On the other hand, if forwarding paging cause is to be supported, only adding asn.1 in UuMessageTransferSidelink is not sufficient, as the Relay UE may not be a MUSIM UE and cannot comprehend the paging case.  In this case, not supporting paging cause forwarding in PC5 seems to be an easier way forward in Rel-17.  **Proposal 1: RAN2 confirm that forwarding paging cause by L2 U2N Relay UE is not supported in Rel-17.** |
| [**R2-2302594**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2302594.zip) | 38.331\_CR\_Corrections to paging monitoring via Relay UE | Samsung Electronics Co., Ltd | PagingRecord-v1700 is added in UuMessageTransferSidelink message. L2 U2N Relay UE includes this when it receives paging cause for the L2 U2N Remote UE in paging message received from gNB. |
| [**R2-2303115**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303115.zip) | Correction on 38.331 | Xiaomi | Relay UE can send NotificationMessageSidelink to remote UE upon reconfiguration failure. It’s up to relay UE’s implementation how to set indicationType if the UE initiates transmission of the NotificationMessageSidelink message due to reconfiguration failure | 331 editorial change  The moderator understands the change is not essential. In previous RAN2 meeting, there was extensive discussion on which failure cases can trigger Relay UE to notify Remote UE with the failure type. Majority companies were negative to adding more failure cases. Particularly, in RAN2#116bis meeting, based on R2-2111223 summary of AI 8.7.3.2 relay (re)selection, E. Uu RRC reconfiguration failure has been discussed but not been agreed. Thus the moderator suggests not to open the same discussion after Rel-17 completion for a long time.  **Proposal 2:** [**R2-2303115**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303115.zip) **is not pursued.** |
| [**R2-2303156**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303156.zip) | Correction on Field Description of Common Resource Pool | CATT | In subclause 6.3.5, in the filed description of sl-TxPoolScheduling and sl-TxPoolSelectedNormal, change "transmit NR sidelink communication" to "perform NR sidelink transmission“ in order to include the NR sidelink discovery. | 331 editorial changes  The changes are correct. Considering there are also other editorial changes proposed in other CRs, the moderator suggest to merge the changes into one big miscellaneous CR.  **Proposal 3: The changes in R2-2303156 are agreeable, and can be merged into RRC miscellaneous CR.** |
| [**R2-2303175**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303175.zip) | Miscellaneous corrections to TS 38.331 for SL relay | ZTE Corporation, Sanechips | 1. In clause 5.8.13.2, add “discovery reception” in two sentences. Change “include” to “included”. 2. In clause 5.8.13.3, change “sl-RemoteUE-ConfigCommon” to “sl-PreconfigDiscConfig”.   Correct the IE name to *SL-FreqConfigCommon.* | 331 editorial changes  The changes are correct. The moderator suggest to merge the changes into one big miscellaneous CR.  **Proposal 4: The changes in R2-2303175 are agreeable, and can be merged into RRC miscellaneous CR.** |
| [**R2-2303176**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303176.zip) | Corrections on sorting quantity of Event X1 for SL relay | ZTE Corporation, Sanechips | 1. In clause 5.5.5.3, add “or in the x1-Threshold2 (for eventX1)”. | 331 editorial changes  The change is correct. The moderator suggest to merge the change into one big miscellaneous CR.  **Proposal 5: Then change in R2-2303176 is agreeable, and can be merged into RRC miscellaneous CR.** |
| [**R2-2303337**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303337.zip) | Correction on PC5 RLC channel release trigger due to SL RLF | vivo | In clause 5.8.9.7.1., add the PC5 RLC channel release trigger due to SL RLF. | 331 editorial changes  The change is correct. The moderator suggest to merge the changes into one big miscellaneous CR.  **Proposal 6: The change in R2-2303337 is agreeable, and can be merged into RRC miscellaneous CR.** |
| [**R2-2303338**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303338.zip) | Correction on SRB0 handling when UE is acting as L2 U2N Remote UE | vivo | In clause 5.3.3.2, 5.3.7.3a and 5.3.13.2, remove the sentence of “2> apply the SDAP configuration and PDCP configuration as specified in 9.1.1.2 for SRB0;”. | 331 editorial changes  The moderator understands the changes are not essential, because in the table of CCCH configuration, the value of SDAP/PDCP configuration is “not used”, then the current spec is not wrong at least. In fact, the sentence of “2> apply the SDAP configuration and PDCP configuration as specified in 9.1.1.2 for SRB0;” was added to address companies’ comment that how to handle SDAP/PDCP should be same to legacy Uu SRB0 via CCCH during CR drafting.  **Proposal 7:** [**R2-2303338**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303115.zip) **is not pursued.** |
| [**R2-2303385**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303385.zip) | Corrections on UE handling of Layer 2 UE-to-NW relay configurations | Apple | 1. Added “RRCSetup” in 5.3.5.14 for PC5 RLC Channel configuration handling.  2. Moved the handling of sl-UEIdentityRemote to a level-1 bullet In 5.3.5.16.  3. Added the procedure text to release sl-L2RelayUE-Config, sl-L2RemoteUE-Config, PC5 Relay RLC channels, Uu Relay RLC channels in 5.3.8.3.  4. Fixed the editorial issue in 5.3.10.3 for relay UE’s Uu RLF handling. | 331 editorial changes  Change #1, #4 are correct. The moderator suggests to merge the changes into one big miscellaneous CR.  Change #2 is related to the proposed changes in 3739, please see the Rapp’s suggestion there.  For change #3, the first two sentences are correct because UE needs to release RLC channels explicitly, but the last two sentences are not needed, because following the current style in the same clause, for configuration, *not store* seems to equal to *release*.  **Proposal 8: Change #1, Change #4 and the first two sentence of change #3 in R2-2303337 are agreeable, and can be merged into RRC miscellaneous CR.** |
| [**R2-2303386**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303386.zip) | Discussion on SRAP configuration in RRCReestablishment | Apple | Observation 1 In Rel-17, RRCReestablishment is unable to override the default SRAP configuration and the UE will continue to use SL-RLC1 as egress PC5 Relay RLC channel for SRB1.  Observation 2 When the SRAP configuration in RRCReestablishment is processed by L2 U2N remote UE, the UE will either encounter a configuration error or do nothing.  Then, we have the following proposals:  Proposal 1 RAN2 confirm that SRAP configuration for SRB1 in RRCReestablishement is not needed for L2 U2N remote UE.  Proposal 2 RAN2 consider to correct this problem with either 1) remove “the SRAP configuration used for the SRB1” in the field description of SL-L2RemoteUE-Config of RRCReestablishment message; or 2) Add the procedure text to let remote UE to ignore the SRAP configuration in RRCReestablishment message. | 331 changes  The moderator understands is to align with previous RAN2 agreement that dedicated configuration of SL-RLC1 for SRB1 is removed from RRCReestablishment message which was neglected somehow in the CR update. Thus the moderator suggests to go with 1) remove “the SRAP configuration used for the SRB1” in the field description of SL-L2RemoteUE-Config of RRCReestablishment message.  **Proposal 9: RAN2 agree that “the SRAP configuration used for the SRB1” is to be removed from the field description of SL-L2RemoteUE-Config of RRCReestablishment message.** |
| [**R2-2303489**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303489.zip) | Clarification on sidelink communication resource configuration used by OoC L2 Remote UE | Huawei, HiSilicon | In clause 8.1,   * Clarify that when a L2 U2N Remote UE is out-of-coverage, the UE shall perform NR sidelink communication according to SIB12 received from the connected L2 U2N Relay UE, but not according to *SL-V2X-PreconfigurationNR*. | 304 editorial correction  The change is to clarify OoC L2 Remote UEs should use resource configuration in SIB12 other than pre-config for SL communication, which is in line with the previous RAN2 agreement.  **Proposal 10: The 38.304 CR in R2-2303489 is agreeable.** |
| [**R2-2303656**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303656.zip) | Miscellaneous corrections to 38331 | Nokia, Nokia Shanghai Bell | 1. Clarified conditional statements | 331 editorial changes  Change #1 of adding separations between conditional “or”s is ok, and can be merged into miscellaneous CR.  Change #2 of removing “/” seems to be incorrect, because the current description is for two types of remote UEs, one is performing relay selection, and the other one is performing relay reselection.  Change #3 of merging the parallel conditions into a *neither..nor..* sentence seems misleading, so the moderator suggests to keep the current wording.  **Proposal 11: The first change of adding separations between conditional “or”s in R2-2303656 is agreeable and can be merged into RRC miscellaneous CR.** |
| [**R2-2303739**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303739.zip) | Correction on L2 U2N Relay Remote UE RRC procedure | Philips International B.V. | Change “*sl-SRAP-ConfigRemote*” in the above text to “*sl-L2RemoteUE-Config*”. | 331 editorial changes  The changes are correct. The moderator suggest to merge the changes into one big miscellaneous CR.  **Proposal 12: The changes in R2-2303739 are agreeable, and can be merged into RRC miscellaneous CR.** |
| [**R2-2303922**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303922.zip) | Correction on role of a L2 U2N Remote UE | ASUSTeK | In sub-clause 5.8.9.3, the term “the UE is acting as L2 U2N Remote UE” is replaced by “the UE is capable of L2 U2N Remote UE”. | 331 editorial changes  The moderator understands the point, and suggest to change “is” to “was”, to echo the condition in 5.3.7, i.e. *1> upon detecting sidelink radio link failure by L2 U2N Remote UE in RRC\_CONNECTED, in accordance with clause 5.8.9.3;*.  **Proposal 13: RAN2 agree that “is” is to be replaced by “was” in the sentence “the UE is acting as L2 U2N Remote UE for the destination” in clause 5.8.9.3.** |
| [**R2-2303983**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303983.zip) | Correction on remote UE’s behavior upon SIB1 reception | Xiaomi | If UE is U2N remote UE, UE can apply the SIB1 configuration regardless of the legacy UL/DL conditions. | 331 change  The moderator agree with the intention. But according to the procedural text, another issue is with the change, it seems the remote UE needs to apply the Uu L1 configuration. Thus the moderator tends to think adding a NOTE to clarify that a L2 U2N Remote UE can disregard the serving cell UL/DL configuration in SIB1.  **Proposal 14: The intention of** [**R2-2303983**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2303983.zip) **is agreeable. RAN2 to discuss whether to add a NOTE in 5.2.2.4.2, to clarify upon reception of the SIB1, a L2 U2N Remote UE can disregard the Uu L1 UL/DL configurations of the serving cell.** |
| [**R2-2304066**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_121bis-e/Docs/R2-2304066.zip) | Correction on Cell Barring for L2 U2N Remote UE | Ericsson España S.A. | Section 5.2   * Added a clause for when *sl-L2U2N-Relay-r17* is not included in SIB12 | 331 change  The issue seems to be invalid, because if the cell does not support L2 U2N relay, relay discovery procedure will not be performed for L2 U2N relay operation.  **Proposal 15: R2-2304066 is not pursued.** |

# 3. Conclusion