**3GPP TSG-** **RAN2 Meeting #120 R2-221xxxx**

**Toulouse, France, 14 – 18 Nov 2022**

**Agenda item:** 6.7.2

**Title:** [Pre120][402][Relay] Summary of agenda item 6.7.2 on relay control plane (Huawei)

**Source:** Huawei, HiSilicon

**Document for:** Discussion and decision

1. Introduction

This is to summarize the company contributions in AI 6.7.2.

2. Discussion

There are 20 contributions submitted to AI 6.7.2. The changes and proposals are classified into two parts:

* Part 1: editorial changes, or straightforward changes/proposals;
* Part 2: proposals/changes needs technical discussion.

## 2.1 Easy corrections

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| --- | --- | --- | --- | --- |
| TDoc number | TDoc title | Source | Change summary | Rapp’s suggestions |
| [**R2-2211210**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2211210.zip) | Discussion on left issues for CP | OPPO | Proposal 1 R2 confirms the indexing of the configured Tx resource pools, when there is only sl-TxPoolScheduling, or only sl-DiscTxPoolScheduling, should be based on R16 spec, and thus is not a R17 specific issue.  Proposal 2 R2 confirm when both sl-TxPoolScheduling and sl-DiscTxPoolScheduling are configured, the index of the latter one is defined after the index of the former one, and within each pool type, and within each pool type, R16 index definition rule is used without further change.  Proposal 3 R2 confirm 1) Uu threshold does not restrict discovery Rx, but 2) restrict the remote UE RRC establishment operation. | P1 and P2 are related to the RAN1 LS R2-2211147 (Reply LS on resource pool index in DCI Format 3\_0), thus suggest to handle the two proposals together with the LS discussion.  P3 is to be discussed in 2.2 for discovery monitoring and AS threshold condition. |
| [**R2-2211296**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2211296.zip) | Discussion on the AS layer condition for a remote UE | SHARP Corporation | Proposal 1: No spec change is needed to restrict Discovery monitoring | P1 is to be discussed in 2.2 for discovery monitoring and AS threshold condition. |
| [**R2-2211606**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2211606.zip) | Discussion on the support of discovery RP scheduling | Huawei, HiSilicon | Proposal 1: To specify the indexing of the configured Tx RPs as described below and in the TP in the Annex,  • In the case where UE is configured with only NR SL discovery dedicated RP, the resource pool index in DCI Format 3\_0 is indexed sequentially across the RP list configured by sl-DiscTxPoolScheduling.  • In the case where UE is configured with both NR SL discovery dedicated RP and NR SL communication RP, the gNB can create a concatenated list of RPs by appending the RPs list indicated by sl-DiscTxPoolScheduling to the RPs list configured by sl-TxPoolScheduling. The value of resource pool index is indexed sequentially across the concatenated list.  Proposal 2: There is no need to introduce an additional capability to indicate whether the UE can support DCI Format 3\_0 capable of scheduling a dedicated discovery pool. | This TDoc is discussing the RAN1 LS R2-2211147 (Reply LS on resource pool index in DCI Format 3\_0), thus suggest to handle it together with the LS discussion. |
| [**R2-2211673**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2211673.zip) | Discussion on a questionable change in IPA CR R2-2210902 | vivo | Proposal 1 Remove the change “… enter RRC\_IDLE, and …” in clause 5.3.7.2 from the IPA CR R2-2210902” (see TP provided in the Annex). | This is a copy-paste mistake in R2-2210902, thus suggest to agree the change and revise R2-2211747 to include the change. |
| [**R2-2211674**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2211674.zip) | Correction to RLC handling upon reception of RRCRelease message with suspendConfig | vivo | In clause 5.3.8.3, clarify the UE behaviour on RLC entity handling for SRB1, considering whether the UE is acting as a L2 U2N Remote UE and whether to release the PC5 unicast link. | The intention is ok to the rapporteur, but the changes may be too detailed, we can consider to make the changes in 5.3.13.2 before applying the default SL-RLC1. |
| [**R2-2211750**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2211750.zip) | Remaining CP correction for sidelink relay | Huawei, HiSilicon | Observation 1: According to the discussion in RAN2 #118, majority prefer not to have restriction on Rx UE behavior.  Observation 2: For L2/L3 U2N Remote UE in IDL/INACITVE state as well as the L3 U2N Remote UE in CONNECTED state, the UE needs to check Uu threshold condition before relay (re)selection. For L2 U2N Remote UE in CONNECTED state, the mobility management is under network control.  Proposal 1: Considering a UE is required to meet the Uu threshold to perform relay (re)selection following existing RRC spec, there is no need to impose Uu threshold condition on Remote UE’s discovery monitoring and corresponding SUI request.  Proposal 1a: RAN2 agree the following changes:  ‐ In 5.8.3.2 in TS 38.331, remove the relay/remote UE AS-layer condition for relay discovery reception, to align with 5.8.13.2 (R2-2209377, OPPO)  ‐ In clause 8.1 in TS 38.304, "or receive" is remove from the sentence "The U2N Remote UE, the U2N Relay UE, or both may transmit or receive NR sidelink relay discovery (i.e., as specified in TS 23.304 [22]) if it fulfills the condition(s) defined in TS 38.331 [3].".( R2-2210625, Nokia)  Proposal 2: Clarify in 5.3.5.11 that when the target is a L2 U2N Relay UE, the Remote UE does not apply Uu L1/MAC configuration and only apply T311 for path switch.  Proposal 3: Clarify in clause 5.8.15.3 if detect suitable relay UE consider one suitable relay can be selected, otherwise consider no relay can be selected (not only based on AS criteria). | P1 and P1a are to be discussed in 2.2 for discovery monitoring and AS threshold condition.  P2 is to be discussed in 2.3 for full configuration.  P3 is to be discussed in 2.4 for relay (re)selection. |
| [**R2-2211872**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2211872.zip) | Correction on handover notification forwarding | Xiaomi | Upon handover, relay UE doesn’t send NotificationMessageSidelink message, if the PCell doesn’t change. | The proposal is to be discussed in 2.5 others. |
| [**R2-2211873**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2211873.zip) | Correction on remote UE's resource allocation | Xiaomi, Ericsson | OOC Remote UE in RRC\_IDLE/INACTIVE can use preconfigured resource if the forwarded SIB12 doesn’t include normal pool and exception pool, from the moment the UE initiates RRC connection establishment or RRC connection resume, until receiving an RRCReconfiguration including sl-ConfigDedicatedNR, or receiving an RRCRelease or an RRCReject. | The proposal is to be discussed in 2.5 others. |
| [**R2-2211898**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2211898.zip) | Correction on sync reference resource selection for remote UE | ZTE, Sanechips | 1. Add the restriction of SIB12 used for selecting cell as synchronization reference source. | The proposal is to be discussed in 2.5 others. |
| [**R2-2211899**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2211899.zip) | Corrections on cast type for SL discovery | ZTE, Sanechips | Observation 1: Based on the current AS-layer specification, if sending all discovery messages using BC manner, it may cause “the useful discovery message may by mistake fail to pass the MAC layer filtering, and be discarded” and thus lead to unnecessary discovery failure.  Proposal 1: Add a NOTE in TS 38.321 to clarify that the cast type indicator is always set to broadcast for discovery message transmission.  Proposal 2: Add a NOTE in TS 38.321 to clarify that MAC layer filter will also match Source Layer-2 ID(s) of the UE when receiving discovery message.  Proposal 3: Correction to TS 38.331: dummy the field sl-CastTypeDisc in SUI and remove related procedure text. | This TDoc is discussing the SA2 LS R2-2211128 (Reply LS on Cast Type for Discovery message), thus suggest to handle it together with the LS discussion. |
| [**R2-2211949**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2211949.zip) | Miscellaneous corrections on TS 38.331 for NR sidelink relay | Xiaomi | 1. In section 5.8.15.3, delete the corresponding description that “when AS layer releases the PC5-RRC connection with the currently selected U2N Relay UE”.  2. In section 5.8.14.1 and section 5.8.15.1, delete “receive” for the general description.  3. In section 5.8.15.1, add “and to perform selection and reselection of NR sidelink U2N Relay UE” in the general procedure.  4. In section 5.8.14.1 and section 5.8.15.1, clarify the threshold conditions only apply to relay-discovery. | Change #1 is reasonable, suggest to agree.  Change #2/3/4 are related to discovery monitoring and AS threshold, thus will be discussed in 2.2. |
| [**R2-2212066**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2212066.zip) | Corrections for sideling relay in TS38.331 | Lenovo Information Technology | 1. In section 5.3.7.3a, ‘(re)’ is removed.  2. In section 5.3.5.15.1, the description for sl-L2RelayUE-Config setting to setup and release is added, respectively.  3. In section 5.3.5.16, the description for sl-L2RemoteUE-Config setting to setup and release is added, respectively. | Change #1 is reasonable, suggest to agree.  Change #2/3 are editorial, suggest to agree. |
| [**R2-2212136**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2212136.zip) | Miscellaneous corrections on TS 38.331 for NR Sidelink Relay | CATT | 1. In subclause 5.3.5.15.3, chage “establish a SRAP entity” to “establish a SRAP entity at Uu interface and separate collocated SRAP entity at the PC5 interface”  2. In subclause 5.3.3.4 and 5.3.7.5, add the judgement whether RRC message includes sl-L2RemoteUE-Config before perform the configuration.  3. In the field description of related IE(SL-BWP-PoolConfig and SL-BWP-DiscPoolConfig), specify the configured Tx resource pools indexing rule when both sl-TxPoolScheduling and sl-DiscTxPoolScheduling are configured. | For change #1, the rapporteur understand how to establish SRAP entity is referring to the SRAP specification, and RRC does not need to explain too much, thus feel the change is not needed.  For change #2, in RRC message, the presence condition already clarifies the fields can only be provided to the L2 Remote UE, thus it seems no need to duplicate the condition in procedural text.  Change #3 is related to the RAN1 LS R2-2211147 (Reply LS on resource pool index in DCI Format 3\_0), thus suggest to handle it together with the LS discussion. |
| [**R2-2212204**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2212204.zip) | Correction on RRC for SL relay | Samsung | Change #1:  – In 5.3.3.8, clarifiy the Remote UE indicates to its upper layers to trigger PC5 unicast link release with Relay UE.  Change #2:  – In 5.8.1, 5.8.2, add TS 24.554 [72].  – In 9.1.1.4, add “or Prose Direct Link Establishment Request, TS 24.554 [72]” in SL-SRB0, and add “or ProSe Direct Link Security Mode Command and ProSe Direct Link Security Mode Complete, TS 24.554 [72]” in SL-SRB1 and add “, TS 24.587 [57] or Prose Direct Link Security Mode Complete, TS 24.554 [72]” in SL-SRB2. | Change #1 is for the case that remote UE has RRC connection abortion, which may happen when the Remote UE already sent msg3 but not received msg4 successfully yet. But from relay UE side, to forward remote UE’s msg3/4, it may already request remote UE ID via SUI and obtain the mapping configuration related to the remote UE. And if the remote UE releases the PC5 link, the relay UE will update the SUI to inform network with the situation, so that the network can handle the configuration related to the remote UE properly, otherwise the relay UE and network cannot know the remote UE aborts its RRC connection and will maintain the configuration for it. Based on above, the rapporteur agrees that the proposed change is the most straightforward handling of remote UE’s Abortion of RRC connection establishment, and suggest to agree the change.  Change #2 is reasonable, thus suggest to agree. |
| R2-2212252 | RSRP measurement issue | Nokia, Nokia Shanghai Bell | Proposal 1: RAN2 to discuss how to enhance the value reported in sl-MeasResult to make it meaningful:  1) Adding a new flag that indicates whether the reported value is an SL-RSRP or an SD-RSRP  2) Reporting a compensated value instead of the measured SL-RSRP:  2a) The measured SL-RSRP is increased, by the reporting UE by the difference between its maximum and the actually used transmission power over the given PC5 unicast link  2b) The measured SL-RSRP is increased, by the reporting UE, by the pathloss over the given PC5 unicast link  2c) The measured SL-RSRP is increased, by the reporting UE by the sl-HystMin of the serving cell of the L2N Remote UE.  Proposal 2: Adopt the TP for the selected option from the Annex | The proposal is to be discussed in 2.5 others. |
| [**R2-2212399**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2212399.zip) | On Mapping Resource Pool Index in DCI format 3\_0 | Nokia, Nokia Shanghai Bell | Observation 1: If both resource pool types, shared resource pool (sl-TxPoolScheduling) and dedicated discovery resource pool (sl-DiscTxPoolScheduling) are configured, it is not clear to which resource pool the resource pool index in DCI format 3\_0 is referring to.  Observation 2: The mapping of the IE resource pool index in DCI format 3\_0 (specified in Rel-16) is not unique in Rel-17 if both sl-TxPoolScheduling and sl-DiscTxPoolScheduling are configured.  Observation 3: RAN2 not specifying anything (related to R1-2210585) in RAN2#120 is not an option.  Proposal 1: RAN2 to discuss potential solutions in RAN2#120 related to the problem raised by RAN1 in R1-2210585.  Proposal 2: RAN2 shall not create any incompatibilities between Rel-16 and Rel-17 for DCI format 3\_0 to resolve the mapping issue of the resource pool index in DCI format 3\_0. | This TDoc is discussing the RAN1 LS R2-2211147 (Reply LS on resource pool index in DCI Format 3\_0), thus suggest to handle it together with the LS discussion. |
| [**R2-2212434**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2212434.zip) | Clarification on capability filter for sidelink relay | Ericsson | Section 5.6.1.4  - It is clarified that the filter sidelinkRequest applies to sidelink, sidelink relay, and sidelink discovery UE capabilties. | The proposed change is related to RAN1 LS R2-2211141 on discovery related capability, thus suggest to handle it together with the LS. |
| [**R2-2212658**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2212658.zip) | Correction on full configuration for remote UE | Sharp | Proposal 1: Upon full configuration, L2 U2N remote UE can follow the current description to apply the default L1 parameter values as specified in physical layer specs.  Proposal 2: Upon full configuration, L2 U2N Remote UE doesn’t apply default MAC Cell Group configuration as specified in 9.2.2.  Proposal 3: Upon full configuration, L2 U2N Remote UE applies default configuration of SL-RLC1 for SRB1 if fullConfig is included.  Proposal 4: Adopt the corresponding draft CR. | The proposals are to be discussed in 2.3 for full configuration. |
| [**R2-2212666**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2212666.zip) | Correction on full configuration for remote UE in 38.331 | Sharp | In 5.3.5.11, clarify default MAC Cell Group configuration as specified in 9.2.2 is not applied for L2 U2N Remote UE and add L2 U2N Remote UE’s behavior to apply the default configuration of SL-RLC1. | Same as 2658. |
| [**R2-2212694**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2212694.zip) | Correction for handling dedicated discovery resource pool for U2N Relay | LG Electronics France | Add the calarification in 6.3.5 that DCI format 3\_0 refers to the index sl-TxPoolScheduling first and then sl-DiscTxPoolScheduling when both sl-TxPoolScheduling and sl-DiscTxPoolScheduling are configured. | This TDoc is discussing the RAN1 LS R2-2211147 (Reply LS on resource pool index in DCI Format 3\_0), thus suggest to handle it together with the LS discussion. |

**Proposal 1: Revise the IPA CR R2-2211747 by removing the change “… enter RRC\_IDLE, and …” in clause 5.3.7.2.**

**Proposal 2: The intentions of R2-2211674, Change #1 in R2-2211949, R2-2212066, R2-2212204are agreeable, and the detailed wording can be checked in CR update.**

**Proposal 3: The following proposals or contributions are to be discussed together with** **RAN1 LS R2-2211147 (Reply LS on resource pool index in DCI Format 3\_0): P1 and P2 in R2-2211210, R2-2211606, Change #3 in R2-2212136, R2-2212399, and R2-2212694.**

**Proposal 4: R2-2211899 is to be discussed together with SA2 LS R2-2211128 (Reply LS on Cast Type for Discovery message).**

**Proposal 9: R2-2212434 is to be discussed together with RAN1 LS R2-2211141 (Reply LS to RAN2 on Per-FS L1 feature for NR sidelink discovery BC-list).**

## 2.2 Discovery monitoring and AS threshold condition

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| TDoc number | TDoc title | Source | Change summary | Rapp’s suggestions |
| [**R2-2211210**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2211210.zip) | Discussion on left issues for CP | OPPO | Proposal 3 R2 confirm 1) Uu threshold does not restrict discovery Rx, but 2) restrict the remote UE RRC establishment operation. | The views are aligned among companies. Thus the rapporteur gives the following proposals:   * RAN2 confirm that Uu threshold condition does not restrict discovery monitoring (it is sufficient that remote UE checks Uu threshold before relay (re)selection). * Remove the Uu threshold condition on Remote UE’s discovery monitoring in 5.8.3.2, 5.8.14.1, 5.8.15.1, and add “and to perform selection and reselection of NR sidelink U2N Relay UE” in the general procedure in 5.8.15.1. * Confirm the last meeting agreement that the change #4 in R2-2210625 (to TS 38.304) is agreeable, i.e. remove restriction on discovery monitoring. |
| [**R2-2211296**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2211296.zip) | Discussion on the AS layer condition for a remote UE | SHARP Corporation | Proposal 1: No spec change is needed to restrict Discovery monitoring |
| [**R2-2211750**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2211750.zip) | Remaining CP correction for sidelink relay | Huawei, HiSilicon | Observation 1: According to the discussion in RAN2 #118, majority prefer not to have restriction on Rx UE behavior.  Observation 2: For L2/L3 U2N Remote UE in IDL/INACITVE state as well as the L3 U2N Remote UE in CONNECTED state, the UE needs to check Uu threshold condition before relay (re)selection. For L2 U2N Remote UE in CONNECTED state, the mobility management is under network control.  Proposal 1: Considering a UE is required to meet the Uu threshold to perform relay (re)selection following existing RRC spec, there is no need to impose Uu threshold condition on Remote UE’s discovery monitoring and corresponding SUI request.  Proposal 1a: RAN2 agree the following changes:  ‐ In 5.8.3.2 in TS 38.331, remove the relay/remote UE AS-layer condition for relay discovery reception, to align with 5.8.13.2 (R2-2209377, OPPO)  ‐ In clause 8.1 in TS 38.304, "or receive" is remove from the sentence "The U2N Remote UE, the U2N Relay UE, or both may transmit or receive NR sidelink relay discovery (i.e., as specified in TS 23.304 [22]) if it fulfills the condition(s) defined in TS 38.331 [3].".( R2-2210625, Nokia) |
| [**R2-2211949**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2211949.zip) | Miscellaneous corrections on TS 38.331 for NR sidelink relay | Xiaomi | 2. In section 5.8.14.1 and section 5.8.15.1, delete “receive” for the general description.  3. In section 5.8.15.1, add “and to perform selection and reselection of NR sidelink U2N Relay UE” in the general procedure.  4. In section 5.8.14.1 and section 5.8.15.1, clarify the threshold conditions only apply to relay-discovery. |

**Proposal 5: RAN2 confirm that Uu threshold condition does not restrict discovery monitoring (it is sufficient that remote UE checks Uu threshold before relay (re)selection), and agree the following changes. The detailed wording can be further checked in CR update.**

* **To remove the Uu threshold condition on Remote UE’s discovery monitoring in 5.8.3.2, 5.8.14.1, 5.8.15.1;**
* **To add “and for NR sidelink U2N Relay (re)selection” in the general procedure in 5.8.15.1;**
* **Confirm the last meeting agreement that the change #4 in R2-2210625 (to TS 38.304) is agreeable, i.e. remove restriction on discovery monitoring.**

## 2.3 Full configuration

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| TDoc number | TDoc title | Source | Change summary | Rapp’s suggestions |
| [**R2-2211750**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2211750.zip) | Remaining CP correction for sidelink relay | Huawei, HiSilicon | Proposal 2: Clarify in 5.3.5.11 that when the target is a L2 U2N Relay UE, the Remote UE does not apply Uu L1/MAC configuration and only apply T311 for path switch. | For default L1 parameter, the proposals in the two TDocs are different. But the rapporteur understand the intentions are aligned. The consideration in R2-2212658 is that “default L1 parameter” is generic which can be interpreted as it include sidelink L1 parameters and Uu L1 parameters, which seems ok. However, as the same description is also specified for RRC setup/resume which is not applied to L2 remote UE, the rapporteur suggests to use the aligned style, i.e. in 5.3.5.11 for full configuration the default L1 parameters (considered as Uu L1 parameters) in existing description is not applied by L2 Remote UE.  For SL-RLC1, although the rapporteur understand the updated 5.3.5.16 can already cover the full configuration case, but it is also ok to explicitly say that SL-RLC1 is established upon full config in 5.3.5.11.  To cover all the proposed changes, the rapporteur propose:  For full configuration, to clarify the following aspects in 5.3.5.11:   * If the UE is acting as L2 U2N Remote UE after reconfiguration with sync or during re-establishment or RRC resume, it does not apply default L1 parameters and default MAC Cell Group configuration as specified in 9.2.2. * L2 U2N Remote UE applies default configuration of SL-RLC1 for SRB1. * When the target is a L2 U2N Relay UE, the Remote UE only applies T311 but not applies T310 and constants N310, N311. |
| [**R2-2212658**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2212658.zip) | Correction on full configuration for remote UE | Sharp | Proposal 1: Upon full configuration, L2 U2N remote UE can follow the current description to apply the default L1 parameter values as specified in physical layer specs.  Proposal 2: Upon full configuration, L2 U2N Remote UE doesn’t apply default MAC Cell Group configuration as specified in 9.2.2.  Proposal 3: Upon full configuration, L2 U2N Remote UE applies default configuration of SL-RLC1 for SRB1 if fullConfig is included.  Proposal 4: Adopt the corresponding draft CR. |
| **[R2-2212666](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2212666.zip)** | Correction on full configuration for remote UE in 38.331 | Sharp | In 5.3.5.11, clarify default MAC Cell Group configuration as specified in 9.2.2 is not applied for L2 U2N Remote UE and add L2 U2N Remote UE’s behavior to apply the default configuration of SL-RLC1. |

**Proposal 6: For full configuration, to clarify the following aspects in 5.3.5.11:**

* **If the UE is acting as L2 U2N Remote UE after reconfiguration with sync or during re-establishment or RRC resume, it does not apply default L1 parameters and default MAC Cell Group configuration as specified in 9.2.2.**
* **L2 U2N Remote UE applies default configuration of SL-RLC1 for SRB1.**
* **When the target is a L2 U2N Relay UE, the Remote UE only applies T311 but not applies T310 and constants N310, N311.**

## 2.4 Relay (re)selection

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| TDoc number | TDoc title | Source | Change summary | Rapp’s suggestions |
| [**R2-2211750**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2211750.zip) | Remaining CP correction for sidelink relay | Huawei, HiSilicon | Proposal 3: Clarify in clause 5.8.15.3 if detect suitable relay UE consider one suitable relay can be selected, otherwise consider no relay can be selected (not only based on AS criteria). | The change is more on the branch of determining no suitable relay is found, as the current description is if AS threshold is not met the relay is not suitable, which can be misunderstood as upper layer criteria is ignored. Thus suggest to agree the proposal. |

**Proposal 7: The intention of removing “AS threshold checking” from the condition of “consider no NR sidelink U2N Relay UE to be selected” in clause 5.8.15.3 is agreeable, and the detailed change can be checked during CR update.**

## 2.5 Others

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| --- | --- | --- | --- | --- |
| TDoc number | TDoc title | Source | Change summary | Rapp’s suggestions |
| [**R2-2211872**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2211872.zip) | Correction on handover notification forwarding | Xiaomi | Upon handover, relay UE doesn’t send NotificationMessageSidelink message, if the PCell doesn’t change. | The change has been submitted in last meeting, and was deprioritized due to the following reasons:   * The change is optimization. Without the change, the spec can work well. * There is a concern that the proposal is to allow group handover even through it is an intra-PCell handover.   The rapporteur observes the situation should be the same, if the proponent insists to discuss this, we can have a proposal marked as low priority. |
| [**R2-2211873**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2211873.zip) | Correction on remote UE's resource allocation | Xiaomi, Ericsson | OOC Remote UE in RRC\_IDLE/INACTIVE can use preconfigured resource if the forwarded SIB12 doesn’t include normal pool and exception pool, from the moment the UE initiates RRC connection establishment or RRC connection resume, until receiving an RRCReconfiguration including sl-ConfigDedicatedNR, or receiving an RRCRelease or an RRCReject. | This change has been submitted to the last meeting. The debate was the UE can use exceptional pool in SIB12 from the moment the UE initiates RRC connection establishment or RRC connection resume until receiving an RRCReconfiguration including sl-ConfigDedicatedNR following the existing procedure , then no need to do further optimization which may bring the risk to break the Rel-16 principle that pre-config cannot be used by IDLE/INACITVE UE.  The rapporteur understands without the change, the NW implementation can take care of the case by including normal pool/exceptional pool in SIB12 if it wants to support L2 U2N relay. But if the proponents insist to discuss this, we can have a proposal marked as low priority. |
| [**R2-2211898**](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_120/Docs/R2-2211898.zip) | Correction on sync reference resource selection for remote UE | ZTE, Sanechips | 1. Add the restriction of SIB12 used for selecting cell as synchronization reference source. | The proposed change has been discussed a little bit during [Pre119bis-e][401] for R2-2209902. And the rapporteur’s view was it can be handled by network implementation. For instance, NW configures GNSS as synchronization in SIB12 if it wants to support coverage enhancement. Another issue is that the synchronization procedure was defined by RAN1 in Rel-16, if the current logic is to be changed for relay case (e.g. to allow remote UE ignore the network configuration in SIB12 and use other source in different OoC cases), it should be discussed and decided by RAN1.  However, with the change in the CR submitted to this meeting, the remote UE will not select the cell as synchronization source even if cell is configured in SIB12, but it still cannot address how the remote UE select other synchronization source if assuming it is a valid case. Thus no proposal is given for this TDoc. |
| **R2-2212252** | RSRP measurement issue | Nokia, Nokia Shanghai Bell | Proposal 1: RAN2 to discuss how to enhance the value reported in sl-MeasResult to make it meaningful:  1) Adding a new flag that indicates whether the reported value is an SL-RSRP or an SD-RSRP  2) Reporting a compensated value instead of the measured SL-RSRP:  2a) The measured SL-RSRP is increased, by the reporting UE by the difference between its maximum and the actually used transmission power over the given PC5 unicast link  2b) The measured SL-RSRP is increased, by the reporting UE, by the pathloss over the given PC5 unicast link  2c) The measured SL-RSRP is increased, by the reporting UE by the sl-HystMin of the serving cell of the L2N Remote UE.  Proposal 2: Adopt the TP for the selected option from the Annex | The rapporteur understands this power imbalance issue between SL-RSRP and SD-RSRP has been discussed several times in the previous meeting, e.g. whether separate threshold should be used during relay reselection, or during measurement reporting, The conclusion is no separate threshold, i.e. UE treats the SD-RSRP measurement with the same threshold as SL-RSRP. If follow the same logic, there seems no need to differentiate the reporting quantity is SD-RSRP or SL-RSRP. But we can double check companies’ views if time allows. |

**Proposal 8: RAN2 can discuss the following if time allows:**

* **A: Upon handover, relay UE doesn’t send NotificationMessageSidelink message, if the PCell doesn’t change.**
* **B: OOC Remote UE in RRC\_IDLE/INACTIVE can use preconfigured resource if the forwarded SIB12 doesn’t include normal pool and exception pool, from the moment the UE initiates RRC connection establishment or RRC connection resume, until receiving an RRCReconfiguration including sl-ConfigDedicatedNR, or receiving an RRCRelease or an RRCReject.**
* **C: How to enhance the serving relay reporting if consider there is power imbalance between SL-RSRP and SD-RSRP:**
  + **1. Adding a new flag that indicates whether the reported value is an SL-RSRP or an SD-RSRP**
  + **2. Reporting a compensated value instead of the measured SL-RSRP:**
  + **2a) The measured SL-RSRP is increased, by the reporting UE by the difference between its maximum and the actually used transmission power over the given PC5 unicast link**
  + **2b) The measured SL-RSRP is increased, by the reporting UE, by the pathloss over the given PC5 unicast link**
  + **2c) The measured SL-RSRP is increased, by the reporting UE by the sl-HystMin of the serving cell of the L2N Remote UE.**

# 3. Conclusion

**Proposal 1: Revise the IPA CR R2-2211747 by removing the change “… enter RRC\_IDLE, and …” in clause 5.3.7.2.**

**Proposal 2: The intentions of R2-2211674, Change #1 in R2-2211949, R2-2212066, R2-2212204 are agreeable, and the detailed wording can be checked in CR update.**

**Proposal 3: The following proposals or contributions are to be discussed together with** **RAN1 LS R2-2211147 (Reply LS on resource pool index in DCI Format 3\_0): P1 and P2 in R2-2211210, R2-2211606, Change #3 in R2-2212136, R2-2212399, and R2-2212694.**

**Proposal 4: R2-2211899 is to be discussed together with SA2 LS R2-2211128 (Reply LS on Cast Type for Discovery message).**

**Proposal 9: R2-2212434 is to be discussed together with RAN1 LS R2-2211141 (Reply LS to RAN2 on Per-FS L1 feature for NR sidelink discovery BC-list).**

**Proposal 5: RAN2 confirm that Uu threshold condition does not restrict discovery monitoring (it is sufficient that remote UE checks Uu threshold before relay (re)selection), and agree the following changes. The detailed wording can be further checked in CR update.**

* **To remove the Uu threshold condition on Remote UE’s discovery monitoring in 5.8.3.2, 5.8.14.1, 5.8.15.1;**
* **To add “and for NR sidelink U2N Relay (re)selection” in the general procedure in 5.8.15.1;**
* **Confirm the last meeting agreement that the change #4 in R2-2210625 (to TS 38.304) is agreeable, i.e. remove restriction on discovery monitoring.**

**Proposal 6: For full configuration, to clarify the following aspects in 5.3.5.11:**

* **If the UE is acting as L2 U2N Remote UE after reconfiguration with sync or during re-establishment or RRC resume, it does not apply default L1 parameters and default MAC Cell Group configuration as specified in 9.2.2.**
* **L2 U2N Remote UE applies default configuration of SL-RLC1 for SRB1.**
* **When the target is a L2 U2N Relay UE, the Remote UE only applies T311 but not applies T310 and constants N310, N311.**

**Proposal 7: The intention of removing “AS threshold checking” from the condition of “consider no NR sidelink U2N Relay UE to be selected” in clause 5.8.15.3 is agreeable, and the detailed change can be checked during CR update.**

**Proposal 8: RAN2 can discuss the following if time allows:**

* **A: Upon handover, relay UE doesn’t send NotificationMessageSidelink message, if the PCell doesn’t change.**
* **B: OOC Remote UE in RRC\_IDLE/INACTIVE can use preconfigured resource if the forwarded SIB12 doesn’t include normal pool and exception pool, from the moment the UE initiates RRC connection establishment or RRC connection resume, until receiving an RRCReconfiguration including sl-ConfigDedicatedNR, or receiving an RRCRelease or an RRCReject.**
* **C: How to enhance the serving relay reporting if consider there is power imbalance between SL-RSRP and SD-RSRP:**
  + **1. Adding a new flag that indicates whether the reported value is an SL-RSRP or an SD-RSRP**
  + **2. Reporting a compensated value instead of the measured SL-RSRP:**
  + **2a) The measured SL-RSRP is increased, by the reporting UE by the difference between its maximum and the actually used transmission power over the given PC5 unicast link**
  + **2b) The measured SL-RSRP is increased, by the reporting UE, by the pathloss over the given PC5 unicast link**
  + **2c) The measured SL-RSRP is increased, by the reporting UE by the sl-HystMin of the serving cell of the L2N Remote UE.**