3GPP TSG-RAN WG2 Meeting #117-e R2-211xxxx

Electronic Meeting, February, 2022

Agenda: 8.7.2.1

Source: InterDigital

Title: Summary of [Pre117-e][609][Relay] Summary of AI 8.7.2.1 Control plane procedures (InterDigital)

Document for: Discussion, Decision

# 1 Introduction

The following document summarizes the proposals in TDOCs submitted to AI 8.7.2.1, and proposed way forward for discussion in RAN2#117-e.

# 2 Discussion

## 2.1 Issues to be discussed

Moderator has identified the following issues to be discussed from the submitted papers.

### 2.1.1 Paging Issues

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| **Tdoc** | **Company** | **Proposals** | **Moderator’s remark and recommendation** |
| R2-2202184 | Qualcomm | Proposal 1: For paging forwarding, remote UE provides relay UE its indication whether to use the same index of the PO as for RRC\_IDLE | On the one hand, features/additions which are made concurrently in different agenda items are typically not discussed together. On the other hand, a gNB supporting Rel17 may avoid the problem of non-overlapping PO for UEs which are directly connected, but not avoid the problem for a remote UE.  Moderator suggests to discuss this. |

Recommendation 1: *RAN2 discuss whether the remote UE provides the relay UE an indication whether to use the same i\_s to determine the PO in RRC\_INACTIVE as in RRC\_IDLE.*

### 2.1.2 Sidelink Notification

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| **Tdoc** | **Company** | **Proposals** | **Moderator’s remark and recommendation** |
| R2-2202344 | Sharp | Proposal 1: Upon receiving the NotificationMessageSidelink message with indicationType as relayUE-CellReselection or relayUE-HO, the U2N Remote UE in RRC\_IDLE or RRC\_INACTIVE considers cell reselection occurs if it decides to maintain the PC5 link with the relay UE. | The papers both deal with the remote UE behaviour in RRC\_IDLE/RRC\_INACTIVE when the relay indicates a reselection or a HO. For the case when the PC5-RRC connection is released (2474), the running CR includes a trigger for cell/relay reselection.  For the case when the PC5-RRC connection is maintained (2344, 2473), both papers indicate the result should be that the remote UE considers this a reselection, in order to be consistent with agreements made in last meeting (i.e. remote UE triggering TAU/RNAU). How this is specified to avoid ambiguity of the camped cell (e.g., trigger SIB1 request, for forward SIB1) should be further discussed. |
| R2-2202473 | InterDigital | Proposal 1: In the running CR, add the initiation of relay or cell reselection procedure when the remote UE decides to release the PC5-RRC connection.  Proposal 2: Specify the forwarding of SIB1 to the remote UE by the relay UE following a cell change by the relay UE.  Proposal 3: Agree to the proposed changes to the running CR in the appendix. |

Recommendation 3: *A remote UE in RRC\_IDLE/RRC\_INACTIVE receiving NotificationMessageSidelink message with indicationType as relayUE-CellReselection or relayUE-HO and deciding to keep the PC5-RRC connection assumes that a cell reselection occurs. RAN2 discusses how to capture the reselection in the running CR to avoid ambiguity at the remote UE of the cell to which the relay is attached.*

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| **Tdoc** | **Company** | **Proposals** | **Moderator’s remark and recommendation** |
| R2-2203148 | Xiaomi | Proposal 9: Relay UE indicates HOF to remote UE via Notification message upon legacy and CHO handover execution. | In the current running CR, the relay UE sends notification message to the remote UE upon reception of reconfiguration with sync (legacy HO), but does not send any notification upon CHO. Moderator understands that proposal 9 attempts to align the behaviour regardless of whether CHO or legacy HO is triggered. |
| R2-2202340 | OPPO | Proposal 6: RAN2 not pursue additional spec effort related to CHO of relay UE. |

Recommendation 4: *RAN2 discuss whether the relay UE sends notification message to the remote UE upon CHO triggered at the relay UE.*

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| **Tdoc** | **Company** | **Proposals** | **Moderator’s remark and recommendation** |
| R2-2203148 | Xiaomi | Proposal 8: Relay UE indicates reestablishment failure to remote UE via Notification message. | Current behaviour of the remote UE in the running CR is to trigger re-establishment (when in RRC\_CONNECTED) and either keep or maintain the PC5-RRC connection (when in RRC\_IDLE/RRC\_INACTIVE). It can be further discussed whether an additional indication in the notification message may change this behaviour. |

Recommendation 5: *RAN2 discuss whether the relay UE sends notification message to the remote UE upon failed re-establishment.*

### 2.1.3 System Information

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| **Tdoc** | **Company** | **Proposals** | **Moderator’s remark and recommendation** |
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| **Tdoc** | **Company** | **Proposals** | **Moderator’s remark and recommendation** |
| R2-2202471 | InterDigital | Observation 4: Forwarding SI following SI update at the relay UE should occur only when the remote UE has configured it at the relay UE, and should be deconfigured by a remote UE in RRC\_CONNECTED.  Observation 5: A mechanism is needed in the running CR for de-configuring SI-request to the relay implicitly, as per agreement. | Observation 4 stems from the following agreement:  Recommendation 1-1c (modified): For SIB-update in case of RRC\_IDLE/RRC\_INACTIVE remote UE(s), rely on relay UE to send updated SIB(s) to remote UE, no new signalling is to be introduced [17/23]. For SIB-update in case of RRC\_CONNECTED remote UE(s), rely on network to send updated SIB(s) when they are updated, no further restriction in specification [15/23]. Remote UE de-configure SI-request w.r.t relay UE implicitly when entering into RRC\_CONNECTED state [10/13].  However, the current running CR does not have the SIB update being de-configured w.r.t. the relay UE upon state transition at the relay UE, and so the relay UE may continue to send SIB updates to the remote UE when the remote UE is in RRC\_CONNECTED. |
| R2-2202471 | InterDigital | Observation 1: The condition for forwarding SI following a SIB request from the remote UE should be based on when the relay UE has the requested SI available  Observation 2: It should be clear in the specification that a relay UE may need to acquire the SI following a request from the remote UE  Observation 3: The condition for forwarding SI following SI update should apply to all SI requests performed by a remote UE  Observation 6: The condition for including SI on SL to the remote UE should simply use the triggers associated with the initiation of the message (discussed in Observations 1-5) | Observations 1, 2, 3, and 6 constitute text improvements which can be discussed/implemented when the running CR is updated/ |

Recommendation 8: *Update the running CR to disable relay UE sending SI update to the remote UE when the remote UE enters RRC\_CONNECTED.*

Recommendation 9: *Discuss observations 1-3, 6 from R2-2202471 in the running CR discussion.*

### 2.1.4 Connection Establishment

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| **Tdoc** | **Company** | **Proposals** | **Moderator’s remark and recommendation** |
| R2-2203178 | Lenovo, Motorola Mobility | Proposal 8: After transmitting one of RRCSetupRequest message, RRCResumeRequest and RRCResumeRequest1 message to gNB via one relay UE, the remote UE shall continue relay re-selection related measurements as well as relay re-selection evaluation. If the conditions for relay re-selection are fulfilled, the UE shall perform relay re-selection procedure. | Moderator understands that it is the intent of the CR rapporteur to follow the behaviour of legacy Uu suggested by this proposal. For the resume, this has already been implemented in the draft CR:  1> if cell reselection occurs while T319 or T302 is running, or   1. if relay reselection occurs while T319 is running, or   However, for connection establishment, the condition related to relay is absent from the running CR  1> if cell reselection occurs while T300 or T302 is running:   1. perform the actions upon going to RRC\_IDLE as specified in 5.3.11 with release cause 'RRC connection failure'; |

Recommendation 10: *Update the running CR to capture that relay reselection can occur following transmission of the RRCSetupRequest and before the connection is established.*

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| **Tdoc** | **Company** | **Proposals** | **Moderator’s remark and recommendation** |
| R2-2202357 | CATT | Proposal 1: For relay UE in RRC\_IDLE, AS layer sends an indication to upper layer for service request upon reception of a message via SL-RLC0. | Moderator believes this should be discussed further by RAN2. |

Recommendation 11: *RAN2 discuss whether the AS layer sends an indication to upper layer for service request upon reception of a message via SL-RLC0*

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| **Tdoc** | **Company** | **Proposals** | **Moderator’s remark and recommendation** |
| R2-2202379 | ZTE, Sanchips | Proposal 1: PC5 RLC channel configuration and SRAP configuration of remote UE’s SRB1 RRC message should be included in RRCSetup message. | Moderator believes this change can be made in the CR. |

Recommendation 12: *Update the running CR to include the PC5-RLC channel configuration and SRAP configuration of the remote UE SRB1 in the RRCSetup message.*

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## 2.2 Issues that can be down-prioritized

Moderator has identified the following issues can be discussed, but are not critical to Rel17 (i.e., can be categorized as enhancements), so they can be treated if time permits.

### 2.2.1 System Information

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| **Tdoc** | **Company** | **Proposals** | **Moderator’s remark and recommendation** |
| R2-2202953 | Samsung | Proposal 1. RAN2 to discuss the need of a timer to restrict frequency SI delivery request over PC5 for RRC\_IDLE/RRC\_INACTIVE Remote UE. | While this seems more like an enhancement than necessary functionality for Rel17, moderator thinks it may be discussed with lower priority given that Uu already supports similar timer. |
| R2-2202340 | OPPO | Proposal 4: RAN2 not pursue T350-like timer for on demand SI request via PC5-RRC. |

Recommendation 13: *RAN2 discuss the need for a T350-like timer for on demand SI request via PC5-RRC.*

### 2.2.2 Access Control

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| **Tdoc** | **Company** | **Proposals** | **Moderator’s remark and recommendation** |
| R2-2203148 | Xiaomi | Proposal 10: Remote UE stops T390 after relay (re-)selection only if its serving cell is changed. Otherwise, remote UE doesn’t stop T390.  Proposal 11: Remote UE stops T390 after selecting cell from relay only if its serving cell is changed. Otherwise, remote UE doesn’t stop T390. | Moderator understands that proposal 11 deviates from the Uu principle that the UE always stops T390 upon cell reselection. In this case, the remote UE performing cell reselection should be no different. As for proposal 10, moderator sees the situation as somewhat different, however, could still be considered an enhancement that requires extra specification effort at this point.  Moderator suggests it be discussed with lower priority. |
| R2-2202340 | OPPO | Proposal 3: RAN2 not pursue additional effort for the stop condition for T390. |

Recommendation 14: *Remote UE stops T390 upon remote UE (re)selection (no impact to current running CR).*

Recommendation 15: *RAN2 discuss whether a different behaviour is needed for T390 at the remote UE upon relay UE (re)selection.*

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## 2.3 Other Issues that do not require any proposals/discussion

Moderator has identified that the issues/proposals below do not need further discussion, either because they are being discussed in another email discussion, propose to revert and agreement/assumption, etc. The reason for the suggested handling is provided for each issue.

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| **Tdoc** | **Company** | **Proposals** | **Moderator’s remark and recommendation** |
| R2-2203272 | Nokia, Nokia Shanghai Bell | Proposal 1: RAN2 to agree, that the gNB can configure the remote UE to select the relay UE during direct to indirect path switching instead of selecting the target relay UE for the remote UE. | This proposal deviates from the assumption that a remote UE in RRC\_CONNECTED performs path switch based on handover-like procedure. Since only one paper suggests this, moderator recommends to down-prioritize this discussion. |
| R2-2203308 | Nokia, Nokia Shanghai Bell | Proposal 1: RAN2 to discuss how to handle the additional connection setup latency introduced by the relay UE to forward its received paging message to the corresponding remote UE.  Proposal 2: RAN2 to agree that network configures at least a maximal allowed delay for the UE-to-Network Relay to forward a received paging message to the corresponding remote UE. | The proposals suggest enhancements to paging which seems not needed for basic Rel17 paging procedure. Given the specification impact and the time remaining for implementing this enhancement, recommendation is to down-prioritize this discussion. |
| R2-2203326 | Ericsson | Proposal 3 RAN2 to discuss how to align the remote UE’s paging DRX and the relay UE’s Uu DRX need to be aligned between each other when the network wants to page a remote UE in RRC\_IDLE/RRC\_INACTIVE via a relay UE in RRC\_CONNECTED via dedicated RRC signalling. |
| R2-2203326 | Ericsson | Proposal 2 When performing the RNAU/TAU procedure and selecting a new cell, the remote UE/relay UE releases the existing PC5 connection. | Moderator sees two possible interpretations. If the RNAU/TAU is performed via a relay UE (e.g. due to change of cell by the relay UE), the agreement is that the remote UE decides based on UE implementation whether to keep or release the PC5-RRC connection. If the RNAU/TAU is performed directly to Uu, we have already agreed that the PC5-RRC connection is released because multipath is not supported. |
| R2-2202411 | Spreadtrum | Proposal 1: Relay UE rejects Remote UE access request if it has running T302. | It was agreed that the remote UE does its own access control, and this proposal would contradict that agreement. |
| R2-2203178 | Lenovo, Motorola Mobility | Proposal 7: A list of SIBs supported and provided by the serving cell is included in the Discovery message e.g., including a BITMAP. | The use of providing the supported SIBs in the discovery message, based on the paper, is use the information for relay selection. Since it was agreed to not consider additional relay selection criteria, moderator believes this enhancement may not need to be discussed. |
| R2-2202325 | SHARP | Proposal 3: For a remote UE in CONNECTED state, the configuration in sl-SRAP-Config-Remote is released when RRCRelease message is received. | This is related to the discussion in [Pre117-e][605][Relay]. |
| R2-2202325 | SHARP | Proposal 1: For a remote UE in CONNECTED state, the configuration in sl-SRAP-Config-Remote is implicitly released when the PC5 RRC connection for relay is released. |
| R2-2202325 | SHARP | Proposal 2: Fora relay UE, the configuration in sl-SRAP-Config-Relay associated with a remote UE could be released by network implementation after the PC5 RRC connection with the remote UE is released.  Proposal 4: For a relay UE, the configuration in sl-SRAP-Config-Relay associated with a remote UE could be released by network implementation after the RRC connection with the remote UE is released. | Given this is network implementation, no proposals are needed. |
| R2-2202379 | ZTE, Sanchips | Proposal 2: During RRC connection establishment procedure of relay UE, gNB may configures SRB0 relaying Uu RLC channel to the U2N Relay UE. | Moderator believes this change is minor and be implemented as part of 38.300 running CR discussion. |
| R2-2203148 | Xiaomi | Proposal 5: Relay UE indicates connection reject to remote UE via Notification message.  Proposal 6: Relay UE indicate the wait time to remote UE, if wait time is configured in RRCReject or RRCRelease.  Proposal 7: Remote UE doesn’t select rejected relay UE, of which wait time is running. | This issue was already discussed in [Post115-e][Relay] without any majority support for introducing an enhancement (11 vs 11). Moderator suggests to avoid rediscussing and maintain legacy behaviour for this release. |
| R2-2203272 | Nokia, Nokia Shanghai Bell | Proposal 2: RAN2 to agree RLF is triggered for the remote UE if the selected relay UE in RRC\_IDLE/INACTIVE state cannot establish RRC connection with the serving gNB of the remote UE. |
| R2-2202411 | Spreadtrum | Proposal 2: In order for a RRC\_IDLE/RRC\_INACTIVE relay UE to establish/resume an RRC connection due to a RRC connection setup/resume/reestablishment by remote UE, use one new cause value for RRC connection setup/resume by relay UE. | Cause value setting is already being discussed in [Pre117-e][605][Relay] |
| R2-2202472 | InterDigital | Proposal 1: A new Establishment/Resume cause value (e.g., remoteUEAccess) is introduced for a relay UE access triggered by a remote UE access.  Proposal 2: The relay UE uses the cause value received from the remote UE when the access should be prioritized (i.e., emergency, highPriorityAccess, mps-PriorityAccess, mcs-PriorityAccess) otherwise, it uses the new cause value. |
| R2-2202567 | vivo | Proposal 1 Confirm that the feasibility to reveal remote UE’s access cause during relay UE’s access is the most important and agree Option 2 (i.e., existing cause values).  Proposal 2 For the cases that revealing remote UE’s access cause during relay UE’s access is beneficial (based on Observation 3,4), RAN2 to agree the Principle 1:   Principle 1: Relay UE should set the same cause value as Remote UE during its access to the NW.  Proposal 3 For the cases that concealing Remote UE’s access cause is acceptable (based on Observation 3,4) or the only way (based on Observation 4,5,6), RAN2 to agree the Principle 2:   Principle 2: Leave it to Relay UE implementation on how to set an appropriate cause value (e.g., by taking the existing cause values applicable to the Relay UE based on its RRC state into account).  Proposal 4 RRC layer of the Relay UE is responsible for the cause value setting when the Relay UE intends to access the NW only for relaying Remote UE’s signaling/traffic.  Proposal 5 RRC layer of the Relay UE should set final the cause value provided by upper layers when receiving Remote UE’s signaling/traffic and upper layers’ signaling/traffic simultaneously.  Proposal 6 RAN2 to send an LS response to CT1 on establishment/resume cause value on L2 SL Relay and confirm with them if there is any concern. Take draft LS in R2-2202569 as baseline. |
| R2-2203135 | Nokia, Nokia Shanghai Bell | Proposal 1: The relay UE reuses existing cause values for RRC connection setup/resume due to a RRC connection setup/resume/reestablishment by remote UE without introducing new AS-layer signalling from remote UE to relay UE over PC5 in Rel-17. When rna-Update cause is used by the remote UE, the relay UE uses mo-Signalling cause in its request over Uu. |
| R2-2203148 | Xiaomi | Proposal 1: Remote UE indicate its cause value to relay UE via PC5-RRC.  Proposal 2: Relay UE set EstablishmentCause as mo-Signalling if RRC establishment is triggered by remote UE whose ResumeCause is rna-Update.  Proposal 3: It’s up to relay UE to select which cause value to use from the multiple remote UEs, if messages from multiple remote UEs arrive at relay UE at the same time.  Proposal 4: Relay UE set EstablishmentCause or ResumeCause as mt-Access if RRC establishment or resume is triggered by remote UE’s reestablishment or path switch. |
| R2-2203306 | Intel | Proposal 1. Solution 4 wherein the Relay UE’s access cause value does not reflect Remote UE’s access value at all and is left entirely to Relay UE implementation to choose an existing cause value is down prioritized.  Proposal 2. Due to inter-dependency on CT1 and limited time in the WI, solution 3.1 wherein NAS has to provide the new cause value for Relay UE is down prioritized.  Proposal 3. For solutions 1.1 and 1.2 wherein the Relay UE’s access value is obtained from Remote UE’s PC5-RRC message, currently defined RemoteUEInformationSidelink can be considered.  Proposal 3.1. For solution 1.2, when Remote UE’s cause value is set to rna-Update, it can be up to Relay UE implementation to map to an existing cause value.  Proposal 4. Solutions 2.1 and 2.2 wherein the Relay UE’s access cause value is obtained from the Remote UE’s msg3 directly is not considered as it is not technically feasible.  Proposal 5. RAN2 further discuss and select between solution 1.2\_modified (solution 1.2 with modification of using already defined PC5-RRC message) and solution 3.2 for setting Relay UE’s access cause value. |
| R2-2202340 | OPPO | Proposal 1: Leave the further issue of PC5-S signalling design to SA2/CT1, no need for additional specification effort in RAN2. | Proposals suggest no additional work needed in RAN2, and the specific topic is not discussed in any other company contribution in this AI. |
| Proposal 2: RAN2 not pursue further optimization on the triggering condition of relay UE to send PC5-RRC/PC5-S messages in Rel-17. |
| Proposal 5: RAN2 not pursue further optimization on “time ambiguity between remote UE and gNB”. |
| R2-2203178 | Lenovo, Motorola Mobility | Proposal 1: No new SL connection timers (T300, T301, T319) is broadcasted in SIB1; instead, a specified or configurable SL time-offset, common to these timers is used. | The possibility of having an offset (rather than a separate timer) was discussed in RAN2 and separate timers was agreed. Given only a single paper on this topic, moderator suggests keeping the current agreement. |
| R2-2203178 | Lenovo, Motorola Mobility | Proposal 4: A groupcast destination ID can be used to distribute SIs and the updated SIs to the linked remote UEs by a U2N relay. | When previously discussed, it was agreed to use unicast to send SI to the remote UEs. Given only a single paper on this topic, moderator suggests keeping the current agreement. |
| R2-2203178 | Lenovo, Motorola Mobility | Proposal 9: Relay UE served by the cell belonging to 'blacklisted' cells may not be applicable in event evaluation or measurement reporting.  Proposal 10: Relay UE served by the cell belonging to 'whitelisted' cells is applicable in event evaluation or measurement reporting. | Moderator thinks these are more appropriate to discuss in the service continuity discussion and/or running CR discussion. |
| R2-2202358 | CATT | Proposal 1: Send LS to RAN3 to check if relay UE is only used for remote UE data forwarding and it has no data transmission/reception requirement on its own PDU sessions, whether the NG-RAN can initiate the UE CONTEXT RELEASE procedure, and if it is allowed, how to handle the relay UE’s RRC connection. | It seems unclear whether there is any RAN2 impacts related to this. We can rely on RAN3 to inform us if that is the case. Moderator suggests companies can discuss this directly in RAN3 |
| R2-2203178 | Lenovo, Motorola Mobility | Proposal 5: A relay UE acquires and forwards SIBs to a remote UE that requested for it, irrespective of whether the relay UE supports/ implements such SIB(s).  Proposal 6: RAN2 should discuss if in case relay UE does not support a particular SIB, it can forward the SIB or if it must forward the corresponding SI-message containing the requested SIB. | Based on current running CR, moderator’s understanding is that forwarding of SI that is not required by a relay can still be requested/acquired by the remote UE via request to the relay UE. |
| R2-2203178 | Lenovo, Motorola Mobility | Proposal 2: The U2N relay maintains the information on SIB(s) of interest for each remote UE and stores/ maintains an updated version of such SIBs, required by one or more linked remote UEs.  Proposal 3: Updates of the requested SIB(s) shall be distributed by a U2N relay to interested linked remote UEs.  . | Based on current running CR, moderator’s understanding is that the relay maintains the list of SIBs that were previously requested by the remote UE (and therefore of interest to the remote UE), since the one condition for sending the SI is as follows:   1. upon receiving the updated SIBs requested by the connected L2 U2N Remote UE from network; |

# 3 Conclusion

The following recommendations should be easily agreeable:

Recommendation 8: *Update the running CR to disable relay UE sending SI update to the remote UE when the remote UE enters RRC\_CONNECTED.*

Recommendation 9: *Discuss observations 1-3, 6 from R2-2202471 in the running CR discussion.*

Recommendation 10: *Update the running CR to capture that relay reselection can occur following transmission of the RRCSetupRequest and before the connection is established.*

Recommendation 12: *Update the running CR to include the PC5-RLC channel configuration and SRAP configuration of the remote UE SRB1 in the RRCSetup message.*

The following recommendations require further discussion:

Recommendation 1: *RAN2 discuss whether the remote UE provides the relay UE an indication whether to use the same i\_s to determine the PO in RRC\_INACTIVE as in RRC\_IDLE.*

Recommendation 3: *A remote UE in RRC\_IDLE/RRC\_INACTIVE receiving NotificationMessageSidelink message with indicationType as relayUE-CellReselection or relayUE-HO and deciding to keep the PC5-RRC connection assumes that a cell reselection occurs. RAN2 discusses how to capture the reselection in the running CR to avoid ambiguity at the remote UE of the cell to which the relay is attached.*

Recommendation 4: *RAN2 discuss whether the relay UE sends notification message to the remote UE upon CHO triggered at the relay UE.*

Recommendation 5: *RAN2 discuss whether the relay UE sends notification message to the remote UE upon failed re-establishment.*

Recommendation 11: *RAN2 discuss whether the AS layer sends an indication to upper layer for service request upon reception of a message via SL-RLC0*

The following recommendations require further discussion but can be down-prioritized for this release if need be, and/or if consensus cannot be reached:

Recommendation 13: *RAN2 discuss the need for a T350-like timer for on demand SI request via PC5-RRC.*

Recommendation 14: *Remote UE stops T390 upon remote UE (re)selection (no impact to current running CR).*

Recommendation 15: *RAN2 discuss whether a different behaviour is needed for T390 at the remote UE upon relay UE (re)selection.*

# 4 References

1. R2-2202184 Remaining issues on control plane procedure of L2 U2N relay Qualcomm Incorporated
2. R2-2202340 Left issue on NR sidelink relay control plane procedure OPPO
3. R2-2202344 Discussion on notification of cell reselection and HO of a relay UE SHARP
4. R2-2202345 Discussion on SRAP config SHARP
5. R2-2202357 Indication to Upper Layer to Trigger Service Request of L2 Relay CATT
6. R2-2202358 Impacts on RAN of AN Release of Relay UE CATT
7. R2-2202379 Further discussion on RRC connection establishment of remote UE ZTE, Sanechips
8. R2-2202411 Remaining open issues on control plane procedures for L2 U2N relay Spreadtrum
9. R2-2202471 On Capturing the Agreements Related to SI in the RRC CR InterDigital
10. R2-2202472 Cause Value Setting for Connection Establishment for UE to NW Relays InterDigital
11. R2-2202473 Handling the Sidelink Notification Message InterDigital discussion
12. R2-2202567 Further Discussion on L2 CP Issue O6.03 vivo
13. R2-2202569 Draft reply LS on establishment/resume cause value on L2 SL Relay vivo
14. R2-2202822 Summary of [Pre117-e][605][Relay] Open issues on relay control plane procedures Huawei, HiSilicon
15. R2-2202953 Open issue on SI request over PC5 Samsung
16. R2-2203135 Considerations on cause codes Nokia, Nokia Shanghai Bell
17. R2-2203148 Discussion on connection control open issues Xiaomi
18. R2-2203178 Remaining issues on CP Lenovo, Motorola Mobility
19. R2-2203272 Support of relay UE in RRC\_IDLE/INACTIVE state during direct to indirect path switching Nokia, Nokia Shanghai Bell
20. R2-2203306 Setting cause value for Relay UE access Intel Corporation
21. R2-2203308 Discussion on added latency for paging forwarding Nokia, Nokia Shanghai Bell
22. R2-2203326 Remaining issues on control plane for L2 sidelink relay Ericsson