**3GPP TSG-RAN2 Meeting 121b-e** **R2-2304226**

**Online, April. 17 – April. 26, 2023**

**Agenda item: 6.10.3**

**Source: LG**

**Title: Summary of [AT121bis-e][506][V2XSL] R17 MAC Corrections (LG)**

**Document for: Discussion and Decision**

1. Introduction

This is the summary of below offline discussion.

* [AT121bis-e][506][V2X/SL] R17 MAC Corrections (LG)

 **Scope:** Discuss corrections for 38.321, including 2618, 2685

 Identify CRs that can be agreed in principle with or without revision

 **Intended outcome:**

1. Discussion summary in R2-2304226.
2. For CRs can be agreed in principle after revision, Tdoc number will be allocated after conclusion from discussion.

 **Deadline:** Aim at email approval before at 4/25 CB session

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1. Discussion

## 2.1 [R2-2302618](file:///D%3A%5C%EC%97%85%EB%AC%B4%5C%ED%91%9C%EC%A4%80%ED%99%94%20%EC%97%85%EB%AC%B4%5C3GPP%5C3GPP%20%ED%91%9C%EC%A4%80%ED%9A%8C%EC%9D%98%5CRel-18%5CRAN2%5C%23120_2022.11%5CTSGR2_120%5Cdocs%5CR2-2211646.zip).

**Reason for change**: When the UE determines the resources for Sidelink Inter-UE Coordination Information transmission upon explicit request from a UE, Sidelink Inter-UE Coordination Information may be combined with SL data and/or SL-CSI, also it may only contain Sidelink Inter-UE Coordination Information.

But, in current spec, the description that UE determines the resources for Sidelink Inter-UE Coordination Information transmission only covers yellow case, while the green case is missing.

**Change**:

3> if *sl-InterUE-CoordinationScheme1* enabling reception/transmission of preferred resource set and non-preferred resource set is configured by RRC and when the UE determines the resources for Sidelink Inter-UE Coordination Information transmission upon explicit request from a UE:

4> randomly select the time and frequency resources for one transmission opportunity from the resources indicated by the physical layer as specified in clause 8.1.4 of TS 38.214 [7], according to the amount of selected frequency resources, the remaining PDB of SL data available in the logical channel(s) allowed on the carrier (if any), and/or the latency requirement of the triggered SL-CSI (if any) and the latency requirement of the Sidelink Inter-UE Coordination Information transmission.

**Rapporteur view**: Rapporteur thought the wording of "and/or" covered the change of the proponent. Also, when it comes to the CSI reporting, there is no such additional text in the MAC specification.

Let’s hear from other companies’ view if the correction is ​​desirable.

**Q1: Would your company agree to the correction in R2-2302618?**

|  |  |  |
| --- | --- | --- |
| Company | Agree/Disagree | Further comments |
| LG | Disagree |  |
| Xiaomi | Disagree | Not essential.  |
| OPPO | Disagree | Agree with Rapp |
| Samsung | Disagree |  |
| Ericsson | disagree |  |
| Nokia | disagree |  |
| vivo | Disagree |  |
| Apple | No |  |
| Intel | Disagree | Non essential change |
| Sharp | Disagree | Share the view with Rapp |
| CATT  | Agree | In our view, based on current spec, when UE performs this procedure, it seems UE needs to consider both the latency requirement of the triggered SL-CSI and the latency requirement of the Sidelink Inter-UE Coordination Information transmission together. This case is not correct, because there is a real case that considering only the latency requirement of the Sidelink Inter-UE Coordination Information transmission. That is the reason to propose this change. “(if any)” needs to be added to include this real case in the sentence. |
| Lenovo | Disagree |  |
| ZTE | Disagree |  |
| Huawei, HiSilicon | No strong view |  |
| Qualcomm | Disagree |  |
| MediaTek | Disagree |  |

[Summary Q1] Out of 16 companies

Agree: 1 (proponent)

Disagree: 15

**Rapporteur summary**: Besides the proponent, there is no support for this correction. The majority view is that this correction is not essential.

**(1, 15) Proposal 1. Change in R2-2302618 is not agreed.**

## 2.2 [R2-2302685](file:///D%3A%5C%EC%97%85%EB%AC%B4%5C%ED%91%9C%EC%A4%80%ED%99%94%20%EC%97%85%EB%AC%B4%5C3GPP%5C3GPP%20%ED%91%9C%EC%A4%80%ED%9A%8C%EC%9D%98%5CRel-18%5CRAN2%5C%23120_2022.11%5CTSGR2_120%5Cdocs%5CR2-2211646.zip).

**Reason for change**: In RAN2#121 meeting, it was agreed to add the transmission of UC-based DCR message case for the use of the *sl-drx-StartOffset* and *sl-drx-SlotOffset* equations.

However, the discovery response message is also transmitted via unicast manner and default CG/BC DRX configuration is used for discovery message, according to TS 23.304 “Proximity based Services (ProSe) in the 5G System (5GS)”. Thus the discovery response message case should also be considered for the use of said equations, i.e. for using default PC5 DRX configuration.

**Change**:

When the cast type is groupcast or broadcast as indicated by upper layer, or the cast type is unicast for the reception of Direct Link Establishment Request message [28] or ProSe Direct Link Establishment Request message [29] as indicated by upper layer, or the cast type is unicast for the reception of discovery response message [26] as indicated by upper layer, the *sl-drx-StartOffset* and *sl-drx-SlotOffset* are derived from the following equations:

*sl-drx-StartOffset* (ms) = Destination Layer-2 ID modulo *sl-DRX-GC-BC-Cycle* (ms).

*sl-drx-SlotOffset* (ms) = (Destination Layer-2 ID modulo the number of slots in one subframe)
/ (the number of slots in one subframe) (ms).

**Rapporteur view**: Rapporteur agree proponent’s observation.

**Q2: Would your company agree to the correction in R2-2302685?**

|  |  |  |
| --- | --- | --- |
| Company | Agree/Disagree | Further comments |
| LG | Agree |  |
| Xiaomi | Agree |  |
| OPPO | Disagree | We understand based on our previous agreement, upper will not indicate the cast type as unicast for discovery message, and the cast type for discovery is always BC, so current spec seems correct:  |
| Samsung | Disagree | Same view as OPPO |
| Ericsson | disagree | Agree with OPPO |
| Nokia | Disagree | Agree with OPPO |
| vivo | Disagree | In RAN2 #120 meeting, RAN2 agreed that transmitting UE MAC entity always sets the cast type indicator for NR SL discovery messages sent by either BC or GC or UC Layer-2 ID to “broadcast”. |
| Apple | No | Agree with OPPO that all discovery cast type are bcast. |
| Intel | Disagree | Agree with majority view |
| Sharp | Disagree | Agree with OPPO |
| CATT | Disagree  | Agree with OPPO. |
| Lenovo | Disagree | Agree with others |
| ZTE | Disagree | Agree with others |
| Huawei, HiSilicon | Proponent with further comments | Agree to follow RAN2#120 agreement that " transmitting UE MAC entity always sets the cast type indicator for NR SL discovery messages sent by either BC or GC or UC Layer-2 ID to “broadcast”, however as now the cast type is set by MAC entity instead of indicated by upper layer, the currect texts still need to be change for discovery. Please companies check whether the following change is needed: When the cast type is groupcast or broadcast as indicated by upper layer, or the cast type is unicast for the reception of Direct Link Establishment Request message [28] or ProSe Direct Link Establishment Request message [29] as indicated by upper layer, or for the reception of discovery message [26], the *sl-drx-StartOffset* and *sl-drx-SlotOffset* are derived from the following equations: |
| Qualcomm | disagree | Agree with OPPO |
| LG (2nd answer) | Agree with HW’s suggestion |  |
| MediaTek | Disagree |  |

[Summary Q2] Out of 16 companies

Agree: 2

Disagree: 14

 **Rapporteur summary**: The majority view is that this correction is not necessary based on the previous RAN2 agreement. The RAN2 agreement is that upper will not indicate the cast type as unicast for discovery message, and the cast type for the discovery message is always broadcast. Besides, even though the proponent suggests updated change, companies do not agree on the change.

**(2, 14) Proposal 2. Change in R2-2302685 is not agreed.**

1. Conclusion

**(1, 15) Proposal 1. Change in R2-2302618 is not agreed.**

**(2, 14) Proposal 2. Change in R2-2302685 is not agreed.**