## 1 Issue 1: Proposal 13 in R2-2309639

**P13: For co-channel co-existence issue at 30kHz SCS, the procedure for selecting resource in the first slot overlapping with an LTE SL subframe is captured in normative text, as following TP.**

Co-ex-related RAN1 agreements are a mix of UE implementation and non-UE implementation, and in the latter case, capturing it as normative text seems complicated from the MAC reporter's perspective, so basically, I prefer to specify co-ex related agreements in NOTE.

Option 1: NOTE based approach

Option 2: Normative text based approach

**Q1: Which of the two options does your company prefer to capture RAN1 agreements of co-existence issue to MAC specification?**

|  |  |  |
| --- | --- | --- |
| Company | NOTE based approach/Normative text based approach | Further comments |
| LG  | NOTE based approach (Rapp) | Co-ex-related RAN1 agreements are a mix of UE implementation and non-UE implementation, and in the latter case, capturing it as normative text seems complicated from the MAC reporter's perspective, so basically, I prefer to specify co-ex related agreements in NOTE. |
|  |  |  |

**[Summary]**

## 2 Issue 2: whether NR CA should also inherit the LTE CA behavior in which only one resource pool is selected on each SL carrier frequency.

In LTE CA, the RRC will indicate the selected pool on each SL carrier configured to the MAC, so that from MAC perspective, there is only one selected pool on each SL carrier frequency.

- If the zone based pool selection is configured, the UE will select a pool on each SL carrier frequency configured based on the zone based operation;

- If the zone based pool selection is not configured, the UE will select a pool on each SL carrier frequency configured based on UE implementation.

According to Rapporteur's understanding of NR sidelink operation, zone based pool selection is not supported in NR SL. Additionally, the MAC entity performs a pool selection procedure based on HARQ attribute while considering multiple resource pools configured in RRC. In other words, in NR CA, the UE procedure of performing carrier selection by considering the CBR of all resource pools included in the carrier as the carrier CBR is considered a more reasonable UE procedure. Rapporteur think that excluding resource pools other than the selected resource pool in the carrier (re-)selection procedure is not a correct UE procedure in terms of performance. From that perspective, Rapporteur think a carrier CBR based carrier selection procedure that including [at least] in current running CR is correct UE behaviour.

Current running CR text:

6> the carrier includes [at least] one pool of resources configured with PSFCH resources among the pools of resources except the pool(s) in *sl-BWP-DiscPoolConfig* or *sl-BWP-DiscPoolConfigCommon*, if configured.

**Q2: Which of the two options does your company prefer to capture carrier CBR-based carrier (re-)selection procedure in MAC specification?**

**Option 1: delete the [at least]**

**Option 2: keep the [at least]**

|  |  |  |
| --- | --- | --- |
| Company | NOTE based approach/Normative text based approach | Further comments |
| LG  | Option 1/Option 2 |  |
| OPPO | 1 | Zoning is still supported by SL (clause 5.8.11 in TS 38.331), while zoning may not be the key point / issue here.The problem due to “[at least]” is that if we select more than 1 pool on one carrier, it would be problematic w.r.t how to decide on the per-carrier CBR from the more-than-1 pools.Given 123 agreement as follows:*Agreements on per-carrier CBR**1: Confirms the working assumption “Same principle as LTE V2X CA is applied to determine per-carrier CBR” as an agreement.*For which our understanding is that the key point to inherit from LTE is that a single pool is selected for one carrier, before decision of carrier-selection, so that no need to worry about the determination of per-carrier CBR. |
| Nec | OPTION 2 with comment | Firstly we are quite confused on rapporteur’s rationale to associate “carrier CBR based…” with whether to have “at least”, since if the HARQ feedback attribute is set as disabled, the the UE still can select resource pools among any configured resource pool of the specific carrier, so the issue on how to determine the CBR of the carrier is still existing. Secondly, instead of referring to LTE based solution, we think it is more proper to refer to Rel-16/17 NR solution. In details, multiple resource pools should be allowed on single carrier.Thirdly, regarding on how to determine the carrier CBR, follow LTE solution, UE should firstly determine which pool can be used on the carrier, so the CBR of the pool can be regard on the CBR of the carrier. Similar procedure can be adopted while how to select the pool is a separate issue. |

**[Summary]**

## 3 Issue 3: TX resource pool selection behaviors are specified before TX carrier selection. P4a/4b in R2-2310969 are related to this issue.

In LTE CA, carrier CBR is assumed to be the CBR of the selected resource pool, so pool selection occurs before carrier selection. It is necessary to consider whether NR CA will stick to this principle. As mentioned in Issue 2, rapporteur believes that the UE behavior of considering the CBR of all resource pools included in the carrier as carrier CBR is a more reasonable procedure from the perspective of flexibility in carrier selection.

**Q3: Which of the two options below for resource pool selection does your company prefer?**

**Option 1: TX resource pool selection behaviors are performed before TX carrier selection**

**Option 2: In the carrier selection procedure, selecting one resource pool for CBR measurement among multiple resource pools on each carrier frequency is up to UE implementation.**

|  |  |  |
| --- | --- | --- |
| Company | Option 1/Option 2 | Further comments |
| LG  | Option 2 (Rapp) |  |
| OPPO | 1 with comment | Not sure what the consequence is for option-1/2, seems literally both would ensure a pool is selected no later than carrier-selection decision? (or is the main diff is that option-2 tends to leave this to UE implementation?)**Option 1: TX resource pool selection behaviors are performed before TX carrier selection** **Option 2: In the carrier selection procedure, selecting one resource pool for CBR measurement among multiple resource pools on each carrier frequency is up to UE implementation.**Anyway, our preference would be as described by Rapp, i.e., to follow “In LTE CA, carrier CBR is assumed to be the CBR of the selected resource pool, so pool selection occurs before carrier selection.”, in order to align with agreement from 123*Agreements on per-carrier CBR**1: Confirms the working assumption “Same principle as LTE V2X CA is applied to determine per-carrier CBR” as an agreement.*[Rapp] Your observation in option 2 is correct.The reason for suggesting option 2 is that changing the format of the existing CR requires a lot of modification. Therefore, as an option I thought about, I wanted to add Option 2 NOTE to specify that pool selection can be performed before carrier selection.If option 2 includes that implication, would you also accept the option of adding to NOTE a UE behaviour where pool selection is performed before carrier selection? |
| NEC | 2 | Option 1 is not practical, since UE should perform pool selection only upon it has buffered data, e.g. to check the HARQ attribute, while UE can perform carrier selection upon multiple time beings, e.g. due to RLF on specific carrier which is agreed in this meeting. |

**[Summary]**

## Conclusion