**3GPP TSG-RAN WG2 Meeting #118 electronic *R2-22xxxxx***

**Online, May 9 – 20th, 2022**

**Agenda Item: 6.19.2**

**Source: China Telecom**

**Title: Summary of [AT118-e][117][** **CovEnh] Stage-2 CR (China Telecom)**

**Document for: Discussion and Decision**

# Introduction

This document aims to summarize the following discussion.

* [AT118-e][117][CovEnh] Stage-2 CR (China Telecom)

      Scope: Update the Stage-2 CR considering the submitted contributions

      Intended outcome: Agreeable Stage-2 CR

      Deadline (for companies' feedback):  Thursday 2022-05-19 12:00 UTC

      Deadline (for final CR in R2-220XXXX):  Friday 2022-05-20 08:00 UTC

Status: ongoing

This offline discussion aims at consolidating a CR for TS 38.300 as outcome of RAN2#118-e.

|  |  |
| --- | --- |
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# Discussion

## 2.1 Clarification of PRACH Resource

*In R2-2204726 [1] and R2-2205842 [2], the clarification of PRACH resource is proposed. Thus, the following change is recommended:*

- Aggregation of multiple slots with TB repetition for MSG3 transmission is supported on both NUL and SUL, applicable to CBRA with 4-step RA type. If configured, the UE requests MSG3 repetition via separate PRACH occasion or PRACH preamble when the RSRP of DL path-loss reference is lower than a configured threshold.

**Question 2.1: Do companies agree with the above proposed change or have further suggestions ?**

|  |  |  |
| --- | --- | --- |
| **Company** | **Agree/Disagree** | **Comments/Suggestions** |
| China Telecom | Agree |  |
| Qualcomm | Agree |  |
| Samsung | See comment | Prefer to use term ‘RACH resource’ instead as used in section 9.2.3 or ‘RA resource’ as used in section 9.2.6 |
| LGE | comment | We have sympathy with Samsung. Considering that “RACH resource” includes both PRACH occasion and PRACH preamble, we prefer to use term “RACH resource” instead of the proposed change. |
| Nokia | Agree |  |
| Huawei, HiSilicon | Agree with updates | Agree with above, “RACH resource” is better. |
| CATT | Agree |  |
| OPPO | Agree |  |
| ZTE | Agree with updates | We prefer to use “RACH resource”.  Or we can use “RACH preamble or PRACH resource”, as in TS 38.300 clause 7.3.2. |
| vivo | Agree with the intention | We think the term “RACH resources” is more accurate as we have more than one RO and/or preamble that can be used periodically. |
| Ericsson | Agree with the others | “RACH resource” seems better. |

**[Rapporteur summary]:**

## 2.2 BWP with only CE RACH resources

*According to the LS [3] from RAN1, configuring PRACH resources only for RACH with Msg3 repetition in a dedicated UL BWP can be feasible.* *RAN1 also point out that “in case of a dedicated UL BWP with only CE PRACH resources UE may request Msg3 repetition without checking the measured RSRP”. In R2-2205842, it also proposes CR to capture this issue. However, there can be different options to support this feature, which is under discussion of [AT118-e][103][CovEnh] RRC CR. As rapporteur of stage-2, we recommend to omit the details and just reflect the support of this feature as follow:*

- Aggregation of multiple slots with TB repetition for MSG3 transmission is supported on both NUL and SUL, applicable to CBRA with 4-step RA type. If configured, the UE requests MSG3 repetition via separate PRACH resource when the RSRP of DL path-loss reference is lower than a configured threshold. BWP configured with RACH resources solely for MSG3 repetition is also supported.

**Question 2.2: Do companies agree with the above proposed change or have further suggestions?**

|  |  |  |
| --- | --- | --- |
| **Company** | **Agree/Disagree** | **Comments/Suggestions** |
| China Telecom | Agree | Since it is confirmed by RAN1 to support BWP with only CE RACH resources, we need to capture this feature in stage-2 spec. Although it is also under the discussion of RRC thread, we do not need to reflect too much details in stage-2 CR. |
| Qualcomm | See comment | We agree the feature (BWP with only CE RACH resources) should be included in 38.300. However, we think it is useful to include some text on how it is different from regular Msg3 repetition. That additional text can be added after the conclusion in the offline on RRC CR is made. |
| Samsung | Agree |  |
| LGE | Agree |  |
| Nokia | Agree |  |
| Huawei, HiSilicon | Agree |  |
| CATT | Agree |  |
| OPPO | See Comment | As agreed in the comeback session yesterday for the RACH partitioning, for the CE only BWP (i.e., the BWP configured with RACH resources only for MSG3 Repetition), the behaviour is a bit different, the threshold is actually not configured, thus some update is needed. |
| ZTE | Agree | Based on RAP conclusion, if companies prefer to add more information for UE behaviour, we can add “and the UE selects the RACH without considering the RSRP of DL path-loss reference” to the end of sentence (same proposal as in [2]). |
| vivo | Agree |  |
| Ericsson | Agree | These details are not necessarily needed for Stage 2, but we are fine to have this. Do not agree to add more details as commented by QC. |

**[Rapporteur summary]:**

# 4. Summary and Proposals

# 5. References

1. R2-2204726 Stage-2 correction on CE OPPO
2. R2-2205842 Corrections on MSG3 repetition Nokia, Nokia Shanghai Bell
3. R2-2204462 Reply LS on UL BWP with PRACH resources only for RACH with Msg3 repetition ZTE