3GPP TSG-RAN WG2 Meeting #110\_e R2-20xxxxx

Electronic meeting, 1st – 12th June 2020

Agenda Item: 6.2.1

Source: Ericsson (rapporteur)

Title: [Post109bis-e][935]][NR-U] MAC open issues (Ericsson)

Document for: Discussion, Decision

# Introduction

This document shall be used to capture open issues and identify new issues in the following email discussion:

* [Post109bis-e][935]][NR-U] MAC open issues (Ericsson)

 Address stage-3 remaining open issues from 109e. Capture identified NEW, if any, stage-3 corrections/issues from other companies.  Issues that have already been discussed and not pursued should not be brought up again.

      Intended outcome: CR for 38.321 addressing open issues (including editorials received offline)

      Deadline: Next Meeting

In order to allow all companies to comment on any new issues, please bring up any new issues before Monday May 18th 23.59 PST.

First we have section 2 that can be used for entering NEW issues, note that issues that have already been discussed and not pursued should not be brought up again. Please add any new issues in section 2.

Then we will have text proposals in section 3 (or in a CR) and a summary in section 4.

# Open issues

## LS to RAN2 on clarification of RVID for the first transmission for CG-PUSCH

At RAN2#109\_e RAN2 made the following agreement on redundancy versions:

1. The UE uses RV zero for the initial transmission. The RV selection for auto-retransmission is left up to UE implementation, as for feLAA.

RAN2 received questions from RAN1 in the LS [R2-2004359](https://www.3gpp.org/ftp/tsg_ran/wg2_rl2/TSGR2_110-e/LSin/R2-2004359.zip), where they state problems of understanding and implementing this agreement when repetitions are configured. RAN1 asks RAN2 to change the agreement and leave the selection of redundancy version to the UE implementation.

* Q1: Was this RAN2 agreement made by also accounting for the case when parameters *cg-nrofSlots-r16* and *cg-nrofPUSCH-InSlot-r16* are configured and *repK*>1? In that case, does this agreement enforce the first transmission out of *repK* from using RV0? RAN1 finds some difficulties to implement this at least for short CG-PUSCHs.
* Q2: In general, given that the CG-UCI includes information related to the RVID of the current CG-PUSCH, is it possible to leave the choice of RVID up to the UE implementation? Keep in mind, that 1) a reasonable UE implementation will not intentionally choose an RVID that would worsen performances, and 2) fixing for the initial transmission RV to 0 does not help gNB’s implementation, since gNB is still unaware of when the initial transmission would happen. In fact, the gNB needs to perform blind detection to determine the CG-PUSCH location, and attempt to decode CG-UCI before decoding the CG-PUSCH.
* Q3: Is it possible from RAN2 perspective to remove the text in square brackets in the above TP and leave the choice of RVID completely up to UE when *cg-RetransmissionTimer* is provided?

**Question 2.1a: Do you agree to change the agreement and let UE implementation select the redundancy version when *cg-RetransmissionTimer* is configured?**

|  |  |  |
| --- | --- | --- |
| **Company** | **Reply (yes/no)** | **Additional comments** |
|  |  |  |

**Question 2.1b: If answered “no” to question 2.1a, how do you propose solving the issues brought up by RAN1?**

|  |  |  |
| --- | --- | --- |
| **Company** | **Reply (yes/no)** | **Additional comments** |
|  |  |  |

**Question 2.1c: Do you agree that RAN2 did not consider repK>1 when agreeing to use RV zero for the initial transmission?**

|  |  |  |
| --- | --- | --- |
| **Company** | **Reply (yes/no)** | **Additional comments** |
|  |  |  |

**Question 2.1d: Do you agree that if RAN2 answers “yes” to to question 2.1a, then that shall also solve the RAN1 issues mentioned in the LS Q1?**

|  |  |  |
| --- | --- | --- |
| **Company** | **Reply (yes/no)** | **Additional comments** |
|  |  |  |

# Text proposals

# Summary