**3GPP TSG-RAN WG2 Meeting #109-e-Bis *R2-200xxxx***

**Online, 20 April–30 April 2020**

**Agenda item: 5.3.1**

**Source: Samsung**

**Title: Report of [AT109bis-e][003][NR15] MAC Maintenance (Samsung)**

**Document for: Discussion and Agreement**

# 1 Introduction

This is to report the result of the following email discussion in RAN2#109bis-e Meeting [1].

* [AT109bis-e][003][NR15] MAC Maintenance (Samsung)

Scope: Treat all tdocs for AI 5.3.1

Part 1: Determine which issues that need resolution, find agreeable proposals. Deadline: April 23 0700 UTC

Part 2: For the parts that are agreeable, discussion will continue to agree on CRs.

# 2 Discussion

## 2.1 UL Skipping

Regarding the UL skipping operation, RAN2 sent the LS R2-1916572 last November, and received the reply LS in R2-2002515. According to the reply LS (which is not conclusive), the following contributions were submitted under the agenda item 5.3.1:

**UL Skipping**

[R2-2002515](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_109bis-e\Docs\R2-2002515.zip) Reply LS on UL skipping (R1-2001376; contact: vivo) RAN1 LS in Rel-15 NR\_newRAT-Core To:RAN2

Proposed to be noted

[R2-2003610](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_109bis-e\Docs\R2-2003610.zip) Further discussion on UL skipping for UCI multiplexing Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-2003594](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_109bis-e\Docs\R2-2003594.zip) CR to 38.321 on UCI transmission in the case the overlapping PUSCH transmission is skipped ZTE, Sanechips CR Rel-15 38.321 15.8.0 0731 - F NR\_newRAT-Core

[R2-2002780](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_109bis-e\Docs\R2-2002780.zip) Discussion on the UL skipping vivo discussion

From the discussion papers above, the following options are on the table:

- Option 1: MAC does not generate a MAC PDU, and UCI is sent on PUCCH (i.e. RAN1 specification has to be updated even though RAN1 did not conclude last meeting.).

- Option 2: MAC generates a MAC PDU when UCI multiplexing on UL-SCH is needed, and thus UCI is sent on PUSCH.

- Option 3: No transmission i.e. UCI is dropped (which has to be specified RAN1 specification).

- Option 4: Leave it to RAN1 with other option like in R2-2003610.

- …

**Please provide the company input to the following table. You may add another option above.**

|  |  |  |
| --- | --- | --- |
| Company | Which option do you support? | Additional comments/suggestion |
| Samsung | Option 1 | Even if RAN1 was not able to conclude the issue last meeting, we understand that Option 1 should be the intended behaviour. |
| LG | Option 1 |  |
|  |  |  |

**Conclusion:**

*[will be drafted after having input from companies]*

## 2.2 BFR

Regarding BFR, the following contributions were (re-)submitted, and one says some changes are needed and the other explains that nothing is needed.

[R2-2002612](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_109bis-e\Docs\R2-2002612.zip) Clarification on the Random Access parameters for BFR Samsung discussion Rel-15 NR\_newRAT-Core

[R2-2003481](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_109bis-e\Docs\R2-2003481.zip) Correction on the RACH parameters for BFR Huawei, HiSilicon CR Rel-15 38.321 15.8.0 0728 - F NR\_newRAT-Core

[R2-2003484](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_109bis-e\Docs\R2-2003484.zip) Correction on the RACH parameters for BFR Huawei, HiSilicon CR Rel-16 38.321 16.0.0 0729 - A NR\_newRAT-Core

**Please provide the company input to the following table.**

|  |  |  |
| --- | --- | --- |
| Company | Is any change needed to the specification? (Yes/No) | Additional comments/suggestion |
| Samsung | No | We provided our understanding in R2-2002612. |
| LG | No |  |
|  |  |  |

**Conclusion:**

*[will be drafted after having input from companies]*

## 2.3 Others

One contribution is submitted to discuss the issue from RAN1:

**Others**

[R2-2003643](file:///D:\Documents\3GPP\tsg_ran\WG2\TSGR2_109bis-e\Docs\R2-2003643.zip) UL grant overridden between configured grant and RAR grant ASUSTeK discussion Rel-15 NR\_newRAT-Core

The contribution above wants to confirm RAN2 understanding which interpretation is correct when both configured grant and RAR grant are available in MAC layer and their corresponding PUSCHs overlap with each other:

- Interpretation 1: RAR grant takes precedence over configured grant

- Interpretation 2: Up to UE implementation

**Please provide the company input to the following table.**

|  |  |  |
| --- | --- | --- |
| Company | Which interpretation is correct? | Additional comments/suggestion |
| Samsung | Interpretation 1 | No changes are needed to MAC. From our understanding, NOTE 3 is for the activation scenario with DCI (and thus it has to send the CG confirmation MAC CE) where it is left to UE implementation. In other cases, RAR grant should take precedence over periodic occasions of CG grants, as specified in MAC. |
| LG | Interpretation 1 |  |
|  |  |  |

**Conclusion:**

*[will be drafted after having input from companies]*

# 3 Conclusion

## 3.1 UL Skipping

## 3.2 BFR

## 3.3 Others

# 4 References

[1] R2-109bis-e Chair MainSession 20-04-20 0800 UTC.docx