**3GPP TSG-RAN WG1 #108-e R1-220xxxx**

**e-Meeting, February 21st - March 3rd, 2022**

**Agenda Item: 7.2.1**

**Source: Moderator (vivo)**

**Title: Summary of email discussion on draft CRs for 2-step RACH**

**Document for: Discussion**

# Introduction

Following email discussion is initiated to collect companies’ views on the issues [1][2] related to the maintenance of Rel-16 2-step RACH WI in RAN1#108-e meeting:

|  |
| --- |
| [108-e-R16-2Step-RACH-01] Email discussion on draft CRs R1-2201065/R1-2201066 for recommendation to the editors for alignment CRs by February 22 - Zhipeng (vivo) |

This document includes the summary of this email discussion.

# Discussion

Based on the discussions during the preparation phase, all companies (see Appendix) who have commented on this issue are fine with the editorial change proposed in CRs R1-2201065/R1-2201066, where the 1st CR is for NR Rel-16 and the 2nd CR is a mirror CR for NR Rel-17.

With that, the 2 CRs seem quite straightforward and moderator suggests the following proposal.

***Moderator Proposal:***

The CRs proposed in R1-2201065 and R1-2201066 are agreeable and recommended to be incorporated into NR Rel-16 and Rel-17 alignment CRs for 38.213 respectively.

Any comments?

|  |  |
| --- | --- |
| Company | Comment |
| Intel | We are fine with the Proposal. |
| Nokia, Nokia Shanghai Bell | We are fine with the proposal. |
| ZTE | We are fine with the proposal. |
| New H3C | We are fine with the proposal. |
| Apple | We are fine with the proposal. |

# Summary

xxx (To be updated)

# References

1. R1-2201065 Draft CR on BFR with 2-step RACH (Rel-16) vivo
2. R1-2201066 Draft CR on BFR with 2-step RACH (Rel-17) vivo

# Appendix

List of proposals in the submitted contributions.

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| --- | --- |
| TDoc | Proposals |
| R1-2201065, vivo | ***Reason for change:*** The PDCCH reception that determines the completion of the contention based random access procedure for 4-step RACH and 2-step RACH is described in section 5.1.5 and 5.1.4a of 38.321 respectively. However, this PDCCH reception is said to be also described in section 5.1.5 of 38.321 for 2-step RACH, which is wrong.***Summary of change:*** Clarify that MsgB reception for completion of the CBRA is described in 5.1.4a of 38.321 instead of section 5.1.5 where Msg4 is described.***Consequences if not approved:*** The PDCCH reception that determines the completion of the contention based random access procedure for 2-step RACH is assumed to be described in section 5.1.5 of 38.321, which is wrong.========CR to Rel-16 TS38.213=======**6 Link recovery procedures**\*\*\* *Unchanged text* *omitted* \*\*\*For the PCell or the PSCell, if BFR MAC CE [11, TS 38.321] is provided in Msg3 or MsgA of contention based random access procedure, and if a PUCCH resource is provided with *PUCCH-SpatialRelationInfo*, after 28 symbols from the last symbol of the PDCCH reception that determines the completion of the contention based random access procedure as described in clause 5.1.5 or clause 5.1.4a of [11, TS38.321], the UE transmits the PUCCH on a same cell as the PRACH transmission using- a same spatial filter as for the last PRACH transmission - a power determined as described in clause 7.2.1 with $q\_{u}=0$, $q\_{d}=q\_{new}$, and $l=0$, where $q\_{new}$is the SS/PBCH block index selected for the last PRACH transmission.\*\*\* *Unchanged text* *omitted* \*\*\* |
| R1-2201066, vivo | ***Reason for change:*** The PDCCH reception that determines the completion of the contention based random access procedure for 4-step RACH and 2-step RACH is described in section 5.1.5 and 5.1.4a of 38.321 respectively. However, this PDCCH reception is said to be also described in section 5.1.5 of 38.321 for 2-step RACH, which is wrong.***Summary of change:*** Clarify that MsgB reception for completion of the CBRA is described in 5.1.4a of 38.321 instead of section 5.1.5 where Msg4 is described.***Consequences if not approved:*** The PDCCH reception that determines the completion of the contention based random access procedure for 2-step RACH is assumed to be described in section 5.1.5 of 38.321, which is wrong.========CR to Rel-17 TS38.213=======**6 Link recovery procedures**\*\*\* *Unchanged text* *omitted* \*\*\*For the PCell or the PSCell, if BFR MAC CE [11, TS 38.321] is provided in Msg3 or MsgA of contention based random access procedure, and if a PUCCH resource is provided with *PUCCH-SpatialRelationInfo*, after 28 symbols from the last symbol of the PDCCH reception that determines the completion of the contention based random access procedure as described in clause 5.1.5 or clause 5.1.4a of [11, TS38.321], the UE transmits the PUCCH on a same cell as the PRACH transmission using- a same spatial filter as for the last PRACH transmission - a power determined as described in clause 7.2.1 with $q\_{u}=0$, $q\_{d}=q\_{new}$, and $l=0$, where $q\_{new}$is the SS/PBCH block index selected for the last PRACH transmission.\*\*\* *Unchanged text* *omitted* \*\*\* |

List of comments collected in preparation phase of RAN1#108-e meeting:

|  |  |  |
| --- | --- | --- |
| Company | Issue #1 | Comments |
| Qualcomm | Editorial | OK with the editorial changes for TS 38.213 suggested in R1-2201065/6. |
| vivo | Editorial |  |
| Intel | Editorial | Can be considered as alignment CR.  |
| Samsung | Editorial |  |
| New H3C | Editorial |  |
| Nokia, Nokia Shanghai Bell | Editorial | Can be considered as alignment CR.In general we are OK with the proposed addition/clarification. |
| Apple | Editorial |  |
| ZTE | Editorial | OK with the editorial change. |