**3GPP TSG-RAN2#118-e R2-220xxxx**

**Electronic meeting, May 09-20, 2022**

**Source: ZTE Corporation**

**Title: [AT118-e][508][RA Part] UP open issues and CR 38.321 (ZTE) - Report**

**Agenda item:** **6.18.2**

**Document for:** **Discussion and Decision**

# Introduction

This is the report of offline discussion collecting the comments on open issues for SDT control plane as noted below:

* [AT118-e][508][RA Part] UP open issues and CR 38.321 (ZTE)

 UP open issues and CR capturing agreed corrections

Deadline: To be set by rapporteur aiming to have company inputs and proposals by Friday

**Deadline for company comments: Thursday (12th) 23:59 UTC**

# Resource selection for RACH procedure when SDT is applicable

In R2-2205470 and in R2-2205942, the issue about RACH resource selection in case of RA-SDT is discussed. The issues are as follows:

Issue1: In clause 5.27, it is unclear whether MAC should perform RACH resource selection (according to section 5.1.1b) or RACh resource set availability (according to section 5.1.1c).

Issue2: Assuming that in clause 5.27 for Small Data Transmission, MAC performs the Random Access resources selection according to 5.1.1b after checking whether data volume and RSRP threshold are satisfied, the UE would have to repeat the selection according to section 5.1.1 for RA initialization procedure.

The question is whether companies agree with this and if there are any comments to the changes. Looking at R2-2205470 and R2-2205942, it seems the intention is to clarify the same thing, but we could try with one of the options and the options proposed in R2-2205942 seems more rigorous so we could check if this is acceptable.

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| Company | Q 2.1 Do you agree with the above issues (issue 1 and issue 2): Yes/No | Q 2.2 Do agree with the changes proposed in R2-2205942? | Any comments to the actual text proposal? |
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Then, in R2-2205470 it was also proposed to delete the following notes in MAC spec:

**NOTE 4: The network configures the same value for rsrp-ThresholdSSB-SUL in all BWPs. So, the UE can obtain this parameter from any Random Access configuration.
NOTE: On a given BWP, the network configures the same value for rsrp-ThresholdMsg3. So, the UE can obtain this parameter from any Random Access configuration within the BWP selected for the Random Access procedure.**

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| Q 2.3: Do companies agree to delete the above notes?  |
| Company | Agree to delete Y/N  | Any comments?  |
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# Fallback from CFRA to CBRA for REDCAP UE

In R2-2205486, the following proposal is made:

**Proposal 1. For the fallback cases from CFRA to CBRA, RedCap UE should select the RedCap specific RACH resource, if it is configured.**

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| Q 3.1: Do companies agree with the above proposal?  |
| Company | Agree/Disagree | Any comments to the TP in R2-2205486?  |
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# Feature prioritization for RACH partitioning

In R2-2205876, it was first proposed to discuss the current RACH partitioning mechanism in general and the following proposal is made first.

Proposal 2 RAN2 should agree on which of the following approaches is desired:

1. Indicating a non-triggered feature is not allowed

2. All triggered features must be signalled

3. No initial down-selection before applying the configured priorities

Rapporteur understanding is that current approach takin in MAC spec is aligned with option 1 above and if we change this there will be other significant changes in RRC and MAC. For instance, if the UE is allowed to select SDT resource even if SDT is not triggered then there will be a misalignment between network and UE regarding whether the SDT RBs are resumed or not. Similar implications may apply to other features too. So, current understanding is that non-triggered feature should not be indicated to the network (i.e. option 1 above), but we can first check if this is the common understanding.

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| Q 4.1: Do companies agree with the current approach that Indicating a non-triggered feature is not allowed? |
| Company | Agree/Disagree | Please explain your preference |
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Then, in R2-2205876 the following proposal is also made.

Proposal 3 Do not specify UE behaviour for the error case when the network does not provide all needed partitions.

We discussed this in the past and agreed to specify UE behaviour for error cases (because network is allowed to only configure RACH resources for a subset of features). So, we can check again if we stick to this approach.

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| Q 4.2: Do companies agree with the following proposal?Proposal: Do not specify UE behaviour for the error case when the network does not provide all needed partitions |
| Company | Agree/Disagree | Please explain your preference |
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# General MAC corrections

In [R2-2205840](file:///C%3A%5Cevutukuri%5Cwork%5C5G%5CRAN2%5Cdocs%5CR2-2205840.zip) and in R2-2205941 a number of general MAC corrections are proposed. Most of these seem straightforward and hence acceptable. However, in R2-2205840, there was issue 7 which proposed to modify the RA partition selection from excluding the unavailable partitions to selection available partitions. Although it seems feasible to go this way, the current proposal in R2-2205840 seems to not work.

For instance, with the approach proposed in R2-2205840, any RACH resource for a feature combination with feature A (e.g: partition with A, A+B, A+C, A+X) will be considered as available for RACH procedure triggered by feature A (even if feature B/C/X is one of the triggers for the same RACH). For example, the RACH resource REDCAP+SDT, REDCAP+CE, REDCAP+Slice A will be considered as available for RACH procedure triggered by REDCAP UE without SDT/CE/Slice indication (i.e. even though the RACH resource is reserved for SDT/CE/Slice A, it will be considered as available for any RACH triggered by REDCAP UE). It seems this is not the intention. So, companies are encouraged first to check the issue 7 in R2-2205840 and explain if they agree with this change or not.

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| Q 5.1: Do companies agree with the following change in R2-2205840?7: Section 5.1.1c: Consider the RA resource sets as available for the RA procedure based on their configured indication and the feature applicability for the RA procedure. |
| Company | Agree/Disagree | Please explain your preference |
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The other changes in R2-2205840 seem straightforward and perhaps we can generally check whether these are acceptable or not.

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| Q 5.2: Apart from the Issue 7 discussed above, do companies have any comments to the other changes in R2-2205840? |
| Company | Changes areOkay/Comments | Please explain any specific comments |
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Similarly, for the changes proposed in R2-2205941 we may be able to check the whole CR at one go.

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| Q 5.3: Do companies have any comments to the changes proposed in R2-2205941? |
| Company | Changes areOkay/Comments | Please explain any specific comments |
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# Editorial issues

Finally, there is one CR submitted capturing a couple of editorial corrections and companies are invited to comment on these specific corrections in R2-2205553.

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| Q 6.1: Do companies have any comments to the changes proposed in R2-2205553? |
| Company | Changes areOkay/Comments | Please explain your choice |
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# Conclusion and proposals

TBD

# References

1. R2-2205470 Consideration on UP Remaining Issues of RACH common CATT discussion Rel-17 NR\_cov\_enh-Core, NR\_slice-Core, NR\_SmallData\_INACTIVE-Core, NR\_redcap-Core

1. R2-2205942 Correction to RACH procedure with SDT applicability Huawei, HiSilicon draftCR Rel-17 38.321 17.0.0 F NR\_SmallData\_INACTIVE-Core, NR\_slice-Core, NR\_redcap-Core, NR\_cov\_enh-Core
2. [R2-2205486](file:///C%3A%5Cevutukuri%5Cwork%5C5G%5CRAN2%5Cdocs%5CR2-2205486.zip) Correction on fallback cases from CFRA to CBRA for RedCap UE LG Electronics Inc. discussion Rel-17 NR\_SmallData\_INACTIVE-Core, NR\_slice-Core, NR\_redcap-Core, NR\_cov\_enh-Core

1. R2-2205876 Feature Prioritization for RACH Partitioning Ericsson discussion Rel-17

1. R2-2205839 Introduction of RACH partitioning Nokia, Nokia Shanghai Bell CR Rel-17 38.300 17.0.0 0466 - F NR\_SmallData\_INACTIVE-Core

1. R2-2205840 RACH partitioning MAC issues Nokia, Nokia Shanghai Bell CR Rel-17 38.321 17.0.0 1288 - F NR\_SmallData\_INACTIVE-Core

1. R2-2205941 Various corrections to MAC spec for RACH partitioning Huawei, HiSilicon draftCR Rel-17 38.321 17.0.0 F NR\_SmallData\_INACTIVE-Core, NR\_slice-Core, NR\_redcap-Core, NR\_cov\_enh-Core

1. R2-2205553 MAC Corrections for RACH partitioning ZTE Corporation (rapporteur) CR Rel-17 38.321 17.0.0 1273 - F NR\_redcap-Core, NR\_SmallData\_INACTIVE-Core, NR\_cov\_enh-Core, NR\_slice-Core