3GPP TSG-RAN WG3 Meeting #121 R3-23xxxx

**Toulouse, France, 21 – 25 Aug, 2023**

**Title: Reply LS on RACH enhancement**

**Response to:**

**Release: Rel-18**

**Work Item: NR\_ENDC\_SON\_MDT\_enh2-Core**

Source: RAN3

**To: RAN2**

**Cc: -**

**Contact person: Hongzhuo Zhang**

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**Send any reply LS to: 3GPP Liaisons Coordinator,** mailto:3GPPLiaison@etsi.org

**Attachments:**

1 Overall description

In the context of RACH optimization, RAN3 discussed how to associate the RA Report(s) retrieved at a gNB with the corresponding RACH partitioning configurations at the time of recording the RA Report(s), in case the RACH partitions have changed by the time an RA Report is retrieved. Following alternatives were discussed, but there was no consensus in RAN3:

Alt1: Enable the addition in the RA Report of the feature priority of each feature in the feature combination used by the UE at the time RACH access is triggered. This enables the NG-RAN to determine whether any optimisation is needed with respect to how features with different priorities are combined in the same feature combination associated to a RACH partition

Alt2: Enable the addition in the RA Report of RACH partition configuration information. This information consists of the start preamble index and the number of preambles in the partition for which the RA Report was generated. This enables the NG-RAN to determine the RACH partition configuration at the time the RA Report was generated. This enhancement is needed because the RACH partitions configurations may change with time and a RA Report generated under certain RACH partition configurations may be reported to the NG-RAN after such RACH partition configurations have changed.

Alt 3: Enable the addition in the RA Report of the time between RACH access that led to the generation of a RA Report and when RA Report was retrieved. Using this timer, and in case the NG-RAN stores time records of past RA Partitions configurations, the NG-RAN can figure out the RACH partitioning confirmation used at the time of RACH access.

RAN3 would like to check with RAN2 on the feasibility and their preference on the above three alternatives.

2 Actions

**To RAN2**

**ACTION:** RAN3 kindly asks RAN2 to provide feedback on the above question.

# 3 Dates of next RAN3 meetings

Updated meeting schedule can be found at: <https://portal.3gpp.org/?tbid=373&SubTB=381#/>

RAN3#121-bis 2023-10-09 - 2023-10-13 Xiamen, CN

RAN3#122 2023-11-13 - 2023-11-17 Chicago, US