3GPP TSG-RAN WG2 #117 R2-220xxxx

eMeeting, 21st February - 3rd March, 2022

**Title:** **[**Draft] LS on coordination of R17 gap features

**Response to:**

**Release:** Rel-17

**Work Item:** NR\_MG\_enh-Core, LTE\_NR\_MUSIM-Core, NR\_pos\_enh-Core, NR\_NTN\_solutions-Core

**Source:** MediaTek [to be RAN2]

**To:** RAN4

**Cc:** RAN1

**Contact Person:**

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**1. Overall Description**

RAN2 has discussed the co-existence of several gap related features (i.e. pre-configured MG, concurrent gap, NCSG, MUSIMG gap, and ePOS gap) introduced in Rel-17 and concluded the following:

* RAN2 signaling will in general support joint configuration for all gap features.
* RAN2 assumes that the detailed UE behaviour while gaps are overlapped in time domain is RAN4 knowledge.

In addition, RAN2 understands there are two new R17 methods on using gap for positioning measurement

* Method 1 (from RAN4): A concurrent gap that is configured for PRS measurement (maybe shared with other measurement). This gap is always activated.
* Method 2 (from RAN1): A list of gap configurations that could be used for PRS measurement only. Only one of the gaps could be activated dynamically by MAC CE.

It is not clear from RAN2 point of view that whether method 1 and method 2 could be configured simultaneously.

RAN2 would like to ask the following questions.

**Q1 –** Whether there is restriction on joint configuration of some gap features from RAN4 perspectives?

**Q2 –** How many gaps (including ePOS gap, MUSIM gap, concurrent gap from MGE WI) could be activated simultaneously?

**Q3 –** Relationship between ePOS gap and R17 concurrent gap for PRS measurement (i.e. can the method 1 and 2 above be configured together?)

Furthermore, RAN2 understands there may be new gap functionality introduced by NTN WI but the design is not completed at this moment. RAN2 may continue to discuss the joint configuration of NTN gap (if there is one) with other gap features.

**2. Actions:**

**ACTION:** RAN2 respectfully asks RAN4 to answer the above questions.

**3. Date of Next RAN2 Meetings:**

RAN2#118-e, eMeeting, 16-27 May. 2022

RAN2#119-e, Toulouse, 22-26 Aug. 2022