**3GPP TSG RAN WG2 #112-e R2-20xxxxx**

**Online, 2nd – 13th November, 2020**

**Title:** LS on Paging Enhancement

**Response to:**

**Release:** Release 17

**Work Item:** NR\_UE\_pow\_sav\_enh-Core

**Source:** MediaTek, RAN2

**To:** RAN1

**Cc:**

**Contact Person:**

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**Attachments:** None

**1. Overall Description:**

In RAN2#112-e, RAN2 discussed UE grouping for paging enhancement in Rel-17 UE power saving WI. RAN2 confirmed that UE grouping is considered as a candidate of paging enhancements for UE power saving. Regarding paging for UE subgroups, RAN2 has discussed and considered the following methods:

* Paging indication for UE subgroups using paging DCI, with either same-slot or cross-slot scheduling;
* Paging early indication (PEI) / wake-up signal (WUS) for UE subgroups;
* UE subgroup indication by using multiple P-RNTIs;
* Paging for UE subgroups using different time/frequency resources.

From RAN2 perspective, the last two methods are de-prioritized. Notice that these methods are not mutually exclusive.

**2. Actions:**

**To RAN1:**

RAN2 respectfully asks RAN1 to take the above information into consideration and provide information on the feasibility and limitations of carrying subgroup information with their recommended solution.

**3. Date of Next RAN1 Meetings:**

TSG-RAN WG2 Meeting 113-e 25 January – 05 February 2021 Online

TSG-RAN WG1 Meeting 113bis-e 12 – 20 April 2021 Online