**3GPP TSG-RAN WG2#127 R2-24xxxxx**

**Maastricht, Netherlands, 19-23 August 2024**

**Title:** DraftLS on data block sizes for Ambient IoT

**Response to:**

**Release:** Release 19

**Work Item:** FS\_Ambient\_IoT\_solutions

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

**To:** RAN1, SA2

**Cc:** SA1

**Contact Person:**

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**Attachments:** None

**1. Overall Description:**

RAN2 have discussed the role of the MAC in handling upper-layer data blocks (MAC SDUs) and processing them into transport blocks (MAC PDUs) and the need of segmentation in MAC layer.

RAN2 expect to define MAC PDU sizes to align with the capacity of the physical layer/TB sizes. Accordingly, RAN2 intend to follow RAN1 on the values used for transport block sizes. To take an educated decision about the need for the segmentation in MAC, RAN2 would like to know the TB sizes (in both D2R and R2D directions) RAN1 intends to specify.

TR 38.848 and TS 22.369 state that a maximum “approximate” or “typical” message size of ~1000 bits is expected. RAN2 would like to understand what maximum and typical size of application data could be expected in reality and if the application layer will support segmentation to adapt application data to the maximum and typical TB sizes (both D2R and R2D directions).

**2. Actions:**

**To RAN1:**

RAN2 respectfully ask RAN1 to indicate what maximum and minimum TB sizes are expected to be supportable in PHY, in both D2R and R2D directions and the conditions (e.g., radio conditions, power, etc.) under which TBs of different sizes can be transmitted.

**To SA2:**

RAN2 respectfully ask SA2 to indicate the maximum and typical data block size delivered from upper layers to the AIoT AS layers, in both D2R and R2D directions.

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

TSG-RAN WG2 Meeting #127bis 14-18 October 2024 Hefei, CN

TSG-RAN WG2 Meeting #128 18-22 November 2024 Orlando, FL, US