**3GPP SA WG2 Meeting #165 S2-2409876**

**Hyderabad, India, 14 – 18 October 2024**

Title: [DRAFT] LS for PDU Set Information Marking Support

**Response to:**

**Release: Rel-19**

**Work Item: XRM\_Ph2**

**Source: SA2**

**To: RAN2, RAN3**

**Cc:**

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**Attachments:**

**1. Overall Description:**

SA2 would like to coordinate the following the latest progress of Rel-19 FS\_XRM\_Ph2 with RAN3:

At the CN side, the PDU Set information marking on the GTP-U header of the downlink packets can be supported (e.g. based on the presence of DL Protocol Description and/or the PSA UPF’s support of PDU Set Information marking), even the PDU Set QoS parameters are absent. In R18, the PDU Set information marking is not activated in the absent of the PDU Set QoS parameters.

In R19, for KI#1 (The other PDU Set based handling which is not QoS related), SA2 assumed “the PDU Set based QoS handling (based on PDU Set QoS parameters) is a subtype of the PDU Set based handling and there is other PDU Set based handling, which is not relevant to PDU Set QoS parameter, replies on the PDU Set identification and the PDU Set Information in the GTP-U header.” In order to support the PDU Set based handling which is not QoS related, SA2 has agreed the following aspects:

* If the PDU Set QoS parameters are absent, but the PDU Set Information marking is supported, the SMF sends NG-RAN a PDU Set Information Marking Support Indicator to indicate the DL PDU Set Information Marking is supported.
* Based on the received the PDU Set Information Marking Support Indicator from the CN, the NG RAN sends information to the SMF to activate the PDU Set Information Marking if the NG RAN requires the PDU Set Information for PDU Set based handling. Based on the RAN provided information, the SMF instructs the PSA UPF to perform PDU Set information marking in the GTP-U header.

SA2 would like RAN2 to confirm the validity of the assumption that there is PDU Set based handling which is not PDU Set QoS parameters related, replies on the PDU Set identification and the PDU Set Information (e.g. PSI, others) in the GTP-U header.

Furthermore, in order to support “the NG RAN sends information to the SMF to activate the PDU Set Information Marking”. SA2 has considered static way and dynamical way:

* Static way: based on the PDU Set Information Marking Support Indication, the NG-RAN provides a PDU Set Based Handling Indication if the PDU Set based handling is supported. based on this indication, the SMF activates the PDU Set information marking in the PSA UPF.
* Dynamically way: based on the PDU Set Information Marking Support Indication, the NG-RAN provides a PDU Set Based Handling Indication if the PDU Set based handling is supported and the NG-RAN requests the SMF to activate/deactivate the PDU Set Information marking on demand and SMF activate/deactivate the PDU Set information marking in the PSA UPF accordingly.

SA2 would like RAN3 feedback which way is preferred.

**2. Actions:**

**RAN2/RAN3:**

**ACTION:** SA2 kindly asks RAN2 and RAN3 to reply the above questions

**3. Date of Next TSG SA WG2 Meetings:**

SA2#166: 18 - 22 November, 2024 Orlando, USA

SA2#166AH-e: 20 - 24 January, 2025 Electronic meeting

SA2#167: 17 - 21 February, 2025 Athens, Greece