**3GPP TSG-RAN WG3 Meeting #126 R3-247869**

**Orlando, USA, 18-22 November, 2024**

**Title: [Draft] LS on PDCP SN gap report handling during UE mobility**

**Response to:**

**Release: Rel-18**

**Work Item: NR\_XR\_enh-Core**

**Source: Huawei (to be RAN3)**

**To: RAN2**

**Cc:**

**Contact Person:**

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

**Attachments:** **-**

**1. Overall Description:**

For Rel-18 XR, it is unclear how to handle the PDCP SN gap report during UE’s inter-gNB mobility. If a UE discarded some UL packets before handover, the UE reports the PDCP SN gap report to the source gNB, but the target gNB may not be aware of those discarded packets if no PDCP SN gap is reported to target gNB. This may result in unnecessary delay in the target gNB.

RAN3 discussed this issue and considers the following solutions:

* Alternative 1: The source gNB forwards the PDCP SN gap report information to the target gNB.
* Alternative 2: The source gNB indicates the discarded SDUs as successfully received via the UL received status in the SN STATUS TRANSFER sent to the target gNB.
* Alternative 3: The UE sends the PDCP SN gap report again after connecting to the target gNB.

RAN3 would like to ask RAN2 to evaluate the feasibility and usefulness of using Alternative 3. If RAN2 cannot support Alternative 3, RAN3 will discuss the network-based solutions, i.e., Alternative 1 and Alternative 2.

**2. Actions:**

**To RAN2:**

**ACTION:** RAN3 kindly asks RAN2 to provide feedback on whether Alternative 3 can be supported.

**3. Date of Next RAN3 Meetings:**

RAN3#127 17th Feb – 21st Feb 2025 Athens, GR

RAN3#127bis 07th April – 11th April 2025 China, CN