3GPP TSG-RAN WG2 Meeting #117-eR2-22xxxxx

**Electronic, February 21 – March 3, 2022**

**Title: [draft] LS on Positioning in RRC\_INACTIVE State**

**Release:** Rel-17

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

**Source:** Huawei, HiSilicon (to be RAN2)

**To:** RAN3

**Cc:**

**Contact Person:**

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**Attachment: R2-220xxxx**

**1. Overall Description:**

RAN2 has technically endorsed the attached "Low Power Periodic and Triggered 5GC-MT-LR Procedures with SDT" for DL-only and RAT-Independent positioning, for UL-only positioning, and for UL+DL positioning. For the attached procedures for DL-only and RAT-Independent, UL-only, UL+DL positioning in RRC\_INACTIVE, we have also considered the scenario of Random Access-based Small Data Transmission without anchor relocation. We understand the LCS and LPP message can be transported between the receiving gNB and last serving gNB with the XNAP message *RRC TRANSFER* message as has been agreed for the discussion for SDT. While for UE-associated NRPPa message *POSITIONING INFORMATION REQUEST and POSITIONING INFORMATION RESPONSE*, they are needed in the case of UL and UL+DL positioning and also need to be forwarded between the receiving gNB and the last serving gNB in case of RA-SDT without anchor relocation. Hence, RAN2 would like to understand whether this can be supported under the currently agreed functionalities in RAN3.

**2. Actions:**

**To RAN3 group**

**Action**: RAN2 respectively asks RAN3 to confirm whether UE-associated NRPPa message POSITIONING INFORMATION REQUEST and RESPONSE can be forwarded between the receiving gNB and the last serving gNB when there is no anchor relocation for positioning in RRC\_INACTIVE. If not, RAN2 respectively asks RAN3 to take this into consideration for the positioning in RRC\_INACTIVE without anchor relocation.

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

TSG-RAN2 Meeting #118-e 16-27 May 2022 Electronic Meeting

TSG-RAN2 Meeting #119-e 22-26 August 2022 Electronic Meeting

Editor's Note: The procedures in Annex A, B, C of the discussion template will be attached.