**3GPP TSG-2 Meeting #R2-21xxxx**

**Online, 16-26 August 2021**

**Title:** [Draft]Reply LS on determination of location estimates in local co-ordinates

**Response to:** LS on determination of location estimates in local co-ordinates (S2-2105124/ R2-2106969)

**Release:** Rel-17

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

**Source:** Ericsson [to be RAN2]

**To:** SA2

**Cc:** RAN1, RAN3

**Contact Person:**

**Name:** Ritesh Shreevastav

**E-mail Address:** ritesh.shreevastav@ericsson.com

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

**Attachments:**

**1. Overall Description:**

RAN2 discussed the question raised by SA2 if determination of local co-ordinates would be limited to certain positioning methods.

RAN2 believes that local co-ordinates can be used for all RAT dependent positioning methods and some RAT independent positioning methods (e.g. WLAN) without a translation into or out of global coordinates.

However, for some RAT independent positioning methods like A-GNSS, RAN2 understanding is that an LMF would need to perform a translation from global co-ordinates to local co-ordinates. Based on the latest 23.032 and 29.572 "Local Co-ordinates are relative to a known reference point defined by an unique Coordinate ID configured by the PLMN operator." and "The origin may have known WGS84 coordinates.", RAN2 understands that this would only be possible when the origin for the local coordinates has a known global location. When that is not available, local coordinates could not be supported. RAN2 believes that this restriction applies only to GNSS based and barometric sensor based positioning methods. For other positioning methods, there would be no restrictions.

However, RAN2 would like to understand whether SA2 expects there may be potential LPP impacts such as providing the local co-ordinates from the UE. In such case, RAN2 may need to discuss this further as there will be potential RAN2 impacts.

**2. Actions:**

**To SA2**

**ACTION:** RAN2 kindly asks SA2 to take the above into account and would kindly request to provide the feedback.

**3. Date of Next TSG-RAN WG3 Meetings:**

TSG-RAN WG2 Meeting #116-e November 2021 E-Meeting

TSG-RAN WG2 Meeting #116bis-e January 2022 E-Meeting