**3GPP TSG RAN WG2#115-e R2-210xxxx**

**Online meeting, August 09-27, 2021**

Title: [Draft] Reply LS on UE location aspects in NTN

Response to: R3-212917/ R2-2106941

Release: Release 17

Source: Qualcomm Inc. [to be RAN2]

To: RAN3

Cc: SA2, CT1

**Contact Person:**

Name: Bharat Shrestha

E-mail Address: bshresth@qti.qualcomm.com

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

Attachments: None

**1. Overall Description:**

RAN2 would like to thank RAN3 for the LS reply and provide answers to the following questions.

**Question 1: RAN3 would like RAN2 to confirm whether the gNB will be able to acquire UE location information with an accuracy comparable to TN cell granularity (e.g. GNSS information** **or otherwise) after AS security, and also to confirm whether it is possible to provide any level of UE location information (i.e. finer than NTN Uu cell accuracy) before AS security.**

**RAN2 answer:** RAN2 has made following agreements:

* UE coarse location information refers to coarse GNSS coordinates (FFS on the details, e.g. X MSB bits out of 24 bits of longitude/latitude or GNSS coordinates with ~2km accuracy).
* if SA3 has no concern reporting coarse location during initial access, the coarse location information is reported in Msg5, i.e., via *RRCSetupComplete*/*RRCResumeComplete* message.
* After AS security is established, gNB can obtain a GNSS-based location information from the UE using existing signalling method, i.e., by configuring *includeCommonLocationInfo* in the corresponding r*eportConfig*. It is up to SA3 to decide whether User Consent is required before NW acquires location information from the UE in NTN.

**Question 3: RAN3 welcomes any feedback from RAN2 on the described case (i.e. the gNB to trigger inter-AMF handover when crossing country borders).**

**RAN2 answer:** RAN2 understands it is up to other working groups to decide based on available information such as UE location information, if available and reported by UE

**Question 4: RAN3 requests RAN2, CT1 and SA2 to provide any feedback on above issue (i.e. which TAC should be reported by the gNB in case of multiple broadcast TAC).**

**RAN2 answer:** RAN2 may be able to provide feedback on this later when the TAI selection issue at NAS is resolved.

**2. Actions:**

**To** **RAN WG3 group.**

**ACTION:** RAN2 kindly asks RAN WG3 to take the above information into account and provide feedback, if any.

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

TSG-RAN WG2#116-e November 1st – November 12th, 2021 Online meeting