**3GPP TSG-RAN WG3 Meeting #113-eR3-21xxxx**

**E-meeting, 16 – 26 August, 2021**

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

**Response to:** New LS on UE location aspects in NTN (R2-2106543/R3-213116);

**Release:** Rel-17

Work Item: NR\_NTN\_solutions-Core, 5GSAT\_ARCH

Source: CATT (to be RAN3)

To: RAN2, SA2, SA3, SA3-LI

CC: CT1

Contact Person: Jiancheng SUN

E-mail Address: sunjiancheng (at) catt (dot) com

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

**1. Overall Description:**

RAN3 thanks RAN2 for the LS on UE location aspects in NTN.

RAN3 discussed and confirmed that NG-RAN does the CGI mapping (e.g. for reporting to CN in ULI) based on the received UE location information from the UE. How to do the mapping is pre-configured (e.g., up to operator’s policy) or up to implementation.

However, some companies in RAN3 pointed out that the mapped cell ID grid will have some dependencies on the UE reporting format and associated precision. For example, if the UE location is known with “~2km” accuracy, then one option is to design the cell grid by directly using the uncertainty areas, meaning that the minimum cell diameter would be about 2km, and the cell geometry would be determined by the signalling format. Another option is to design the grid independently, but in this case, it seems that the relationship between actual UE position and reported CGI might vary in the same area unless the cell size is set somewhat larger than 2km (say for example x3 to reduce the said variation).

Some companies felt that the above is not a significant limitation in the mapped CGI configuration, and either option achieves a major improvement over NTN cell reporting (and similar to many TN areas).

**Question: RAN3 kindly ask SA2, SA3 and SA3-LI to confirm that the above aspects of mapped CGI configuration (for ULI reporting to the CN) are acceptable.**

**2. Actions:**

**To SA2, SA3, SA3-LI group**

**ACTION:** RAN3 kindly asks SA2, SA3 and SA3-LI to provide feedback on the above issue.

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

RAN3#114-e 1st Nov. – 11th Nov. 2021 Online

RAN3#115-e 21st Feb. – 25th Feb. 2022 Athens, GR