**3GPP TSG-RAN WG3 #110-e R3-20xxxx**

**2 – 12 November 2020**

Title: [DRAFT] Reply LS on SA WG2 assumptions from conclusion of study on architecture aspects for using satellite access in 5G

Response to: Reply LS on SA WG2 assumptions from conclusion of study on architecture aspects for using satellite access in 5G (R3-206842/S2-2008307)

Release: Release 17

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

Source: Qualcomm Incorporated [to be RAN3]

To: SA2, RAN2

Cc: SA3-LI, SA5

**Contact Person:**

Name: Luis Lopes

Tel. Number:

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

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

Attachments: None

**1. Overall Description:**

RAN3 thanks SA2 for their reply LS in R3-206842/S2-2008307.

RAN3 would like to inform SA2 and RAN2 that RAN3 agreed that a Cell ID as used on NG-RAN interfaces corresponds to a fixed geographical area.

RAN3 has further started to analyse the consequence on the agreements that a Cell ID as well as a Tracking Area ID correspond to a fixed geographical area.

Tracking Area IDs, Cell IDs are used on several interfaces (Xn, NG/N2, Uu) and their definition in the context of NTN would need to be clarified.

While RAN3 tries to minimize the impact to 5GC, there are different opinions on how the definition of Tracking Areas ID/Cell IDs on Uu and Xn would relate to their definition on NG(N2), especially for earth-moving cells.

These are the approaches so far considered in RAN3:

a) On Uu SIB content corresponds to momentary coverage area of a satellite beam related to the geographically fixed areas of TAs/Cells - irrespective of whether the beam is fixed or moving. This implies in general that the SIB contains more than one set of (PLMNs)/TAC/Cell ID.

b) IDs used on Uu SIB content and on Xn are decoupled from IDs used on NG(N2). The respective mapping is performed in RAN.

NOTE: one may consider option b) to be only applicable for Cell IDs, while for Tracking Areas, approach a) is followed.

RAN3 will continue to study resulting impacts or requirements in RAN functions, procedures and signalling as applicable to this use case. To progress further, RAN3 would also like to ask RAN2 to provide any feedback on the above approaches including e.g. SIB aspects, and how the RAN could acquire information on the UE’s location.

**2. Actions:**

**To** **SA WG2.**

**ACTION:** RAN3 kindly asks SA2 to take the above information into account.

**To RAN WG2.**

**ACTION:** RAN3 kindly asks RAN2 to provide feedback on the above.

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

RAN3#111-e January 2020 Electronic meeting