**3GPP TSG-RAN WG3 #112-e R3-21xxxx**

**17 – 28 May 2021**

Title: Reply LS on LS on IoT-NTN basic architecture

Response to: LS on IoT-NTN basic architecture (R3-211432/R2-2102501, R3-211449/S2-2101663)

Work Item: FS\_LTE\_NBIOT\_eMTC\_NTN

Source: RAN3

To: RAN2, SA2, RAN,

Cc: CT1

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Attachments: None

**1. Overall Description:**

RAN3 would like to thank RAN2 and SA2 for the received LS on IoT-NTN basic architecture.

RAN3 would like to clarify that the NG interface is always terminated in NG-RAN, i.e. in Fig.2 of the RAN2 LS, “E-UTRAN” shall be replaced by “NG-RAN”. As specified in TS 38.300, NG-RAN nodes can provide either NR or E-UTRA user plane and control plane terminations towards the UE. RAN3 assumes that RAN2 is considering NTN for the following:

* Support of eMTC/NB-IOT device connectivity to EPC
* Support of eMTC/NB-IOT device connectivity to 5GC

Regarding 5GC connectivity, support for this configuration is not currently planned. The current NG-RAN work for NTN can be taken as a baseline, but since the NTN architecture aspects are only applicable to NR cells, for which IoT functionality is not defined, it is unclear at this time how much such aspects from current Rel-17 work can be re-used or new functionality needed.

Regarding EPC connectivity, RAN3 has currently no planned work on this topic. RAN3 expects that it may be feasible to take the NG-RAN work as a model and transpose it to E-UTRAN, however, as mentioned above, it is currently unclear, how much from current Rel-17 work can be reused.

RAN3 would like also to comment that a decision to start work on IoT-NTN support, and the respective 3GPP Release, depends on TSG RAN’s decision. RAN3 expect a reasonable overload impact, if any positive decision.

**2. Actions:**

**To RAN WG2, SA WG2, TSG RAN**

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

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

RAN3#113-e 16-27 August 2021 Electronic meeting