3GPP TSG-RAN WG3 Meeting #124 R3-243865

Fukuoka, Japan, 20th – 24th May 2024

**Title: [Draft] Reply LS on Support of Regenerative-based Satellite Access**

**Response to: S2-2405600/R3-243017**

**Release:** **Rel-19**

**Work Item: NR\_NTN\_Ph3-Core**

Source: ZTE (to be RAN3)

To: SA2

**Cc: RAN2**

**Contact Person:**

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

1. **Overall Description:**

RAN3 thanks SA2 for their candidate mechanisms and assumptions on the Rel-19 study on 5G System enhancements for satellite access. RAN3 has discussed the issues and provides the corresponding feedback as below.

* A procedure to handle the N2 and S1 connections when the eNB/gNB leaves the service area of an AMF/MME (e.g. when setting over the horizon) should be supported. Options e.g. disconnecting/suspending/performing configuration update of the N2/S1 connections are considered in SA2. It is up to RAN3 to determine the final option about whether to reuse existing or new mechanisms/procedures.

RAN3 has discussed the options for the management of NG connection. Technically, the NG Suspend/Resume mechanism should be applied.

RAN3 has not discussed the details of S1 connection since the Rel-19 IoT NTN WI has not started, but RAN3 think the Suspend/Resume mechanism should be also applied for the management of S1 connection.

* If the eNB/gNB IP address changes due to soft feeder link switch, SA2 assumes that this case can be supported using the existing procedures.

As given in TS 38.412, the case of gNB IP address changes due to soft feeder link switch can be supported by the existing NGAP RAN Configuration Update procedure. While, the case of eNB IP address changes due to soft feeder link switch cannot be supported by the existing S1AP procedure.

* SA2 assumes that AMF/MME can treat the Mapped Cell ID as per rel-17.

RAN3 also thinks that the AMF/MME can treat the Mapped Cell ID as in previous releases.

**2. Actions:**

**To SA2 group.**

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

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

TSG RAN WG3 Meeting #125 19th – 24th, Aug. 2024 Maastricht, The Netherlands