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

**Online, 16-27 August 2021**

**Title: [Draft]** Reply LS to RAN2 on reduction of service interruption during intra-donor IAB-node migration

**Release:** Rel-17

**Work Item:** NR\_IAB\_enh-Core

**Source:** AT&T [will be RAN2]

**To:** RAN3

**Cc:**

**Contact person:**

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# 1 Overall description

RAN2 thanks RAN3 for their LS on reduction of service interruption during intra-donor IAB-node migration (R2-2106948), which has been noted. RAN2 understands that RAN3 is discussing two solutions for reduction of service interruption, where the transfer of RRCReconfiguration for TNL migration of a descendent IAB node occurs over the source path.

* For Solution 1, the RRCReconfiguration message for TNL migration of a descendent node IAB-MT is withheld by this descendant node’s parent IAB-DU, and it is delivered only when a condition is satisfied.
* For Solution 2, the RRCReconfiguration message for TNL migration of the descendant-node IAB-MT is buffered by the descendent-node’s IAB-MT itself, and it is executed only when an indication is received from the parent IAB-DU.

RAN2 provides the following feedback to RAN3 regarding Solutions 1 and 2:

Solution 1:

* Solution 1 has no impact on RAN2 for the success case described in the LS from RAN3.
* RAN2 observes that there are other aspects of Solution 1 requiring further discussion, such as IAB-node migration failure case, or the case with additional RRCReconfiguration messages to same child IAB-MT.
* RAN2 emphasizes that for solution 1, the PDCP SN order cannot be disrupted, i.e., it is not possible to discard a RRC Reconfiguration message.

Solution 2:

* RAN2 expects the following impact for Solution 2:
  + Impact to RRC specification (38.331):
    - Indication for conditional execution to be added to RRCReconfiguration message
    - ASN.1 amendment needed for buffered RRCReconfiguration
    - Procedures for the child IAB-node to potentially discard the buffered RRCReconfiguration, e.g., in case the parent IAB-node fails the migration (e.g., new action upon reception of BH RLF indication)
  + L1/L2 indication (e.g. new BAP control PDU) sent by the migrated parent IAB-node DU to the descendant IAB-node MT to trigger the execution of RRCReconfiguration at the child IAB-node MT, and related configuration at the parent node.
* RAN2 observes that there are other aspects of Solution 2 requiring further discussion, such as IAB-node migration failure case, interaction with CHO, or incompatibility with inter-CU migration.

Finally, RAN2 observes that trigger conditions for both Solution 1 (to forward withheld RRCReconfiguration) and Solution 2 (to execute buffered RRCReconfiguration) require further discussion.

RAN2 requests RAN3 to consider the above feedback in their discussion of solutions for reduction of service interruption during intra-donor IAB-node migration.

# 2 Actions

RAN2 kindly asks RAN3 to take note of the above.

# 3 Dates of next TSG RAN3 meetings

TSG-RAN WG2 Meeting #116-e 01 – 11 November 2021 E-meeting

TSG-RAN WG2 Meeting #117 21 – 25 February 2022 Athens, GR