**3GPP TSG RAN WG2#115-e R2-2109108**

**Online, 16-27 August 2021**

**Title:** Reply LS to RAN3 on reduction of service interruption during intra-donor IAB-node migration

**Release:** Rel-17

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

**Source:** RAN2

**To:** RAN3

**Cc:**

**Response To:** R2-2106948 (R3-212973)

**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:

* RAN2 observes that there are a few aspects of Solution 1 requiring further discussion in RAN2, which are provided at the end.
* RAN2 emphasizes that for solution 1, RRC messages (PDCP PDUs) should be received in order, and RAN2 would investigate if there are impacts on PDCP due to the RRC message withheld at the parent node or due to multiple withheld RRC messages.

Solution 2:

* RAN2 expects the following impact for Solution 2:
  + Impact to RRC specification (38.331):
    - Indication for conditional execution to be added to ASN.1 for RRCReconfiguration message
    - Procedures for the child IAB-node to potentially discard the buffered RRCReconfiguration, to address the case of IAB-node migration failure.
  + 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.

Finally, RAN2 observes that trigger conditions for both Solution 1 (to forward withheld RRCReconfiguration) and Solution 2 (to send the L1/L2 indication) require further discussion. Interaction of CHO with both solutions may also need further discussion. The case of IAB-node migration failure needs to be discussed for solution 1, and the impacts for solution 2 are provided above.

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