**3GPP TSG-RAN WG3 Meeting #114bis-e *R3-22xxxx***

**Online, 17th - 26th January 2022**

**Title: [DRAFT]** LS on support of mobility between gNBs supporting NR MBS

**Response to:**

**Release:** Release 17

**Work Item:** 5MBS, NR\_MBS-Core

**Source:** Whoever that will be (it will be RAN3 in the end)

**To:** SA2

**Cc:** CT4

**Contact Person:**

**Name:** Name Name

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**Attachments:** -

**1. Overall Description:**

RAN3 would like to inform SA2 that we still have no consensus on whether to support data forwarding for mobility between gNBs supporting NR MBS.

Further RAN3 discussed two approaches to minimise data loss and allow detection of duplicated data at mobility between gNBs supporting NG MBS:

1) One scheme enables gNBs to share a common UP entity, sharing the same NG-U/N3 DL termination and allowing to synchronise PDCP Sequence Number allocation for NR MBS user plane data and by that enable UEs to track duplicated/lost packets also at inter-gNB mobility.

The scheme would foresee that the MB-SMF acts as a kind of co-ordinating entity for the respective NG-RAN nodes by providing at *Establishment of shared delivery toward RAN node* to the gNB information about potentially candidates for shared (SDAP)/PDCP entities (in fact already allocated shared UP resources at NG-RAN) by means of an address information (NG-U GTP-TEID).

RAN3 believes that such scheme is able to work for both, unicast and multicast transport on NG-U but would require the gNB to provide [DL tunnel info] for both, unicast and multicast transport options, indicating the gNB’s ability to provide such shared UP entity.

2) The other scheme foresees the MB-UPF to tag NG-U/N3 MBS user data with sequence numbers introduced on the NG-U protocol (38.415) which enables receiving gNBs to generate PDCP SNs along a pre-defined mapping rule between QoS flows and MRBs.

**2. Actions:**

**To SA2 group.**

**ACTION: RAN3 asks SA2 to endorse the agreed scheme from their point of view and perform respective stage 2 work and organise stage 3 work.**

**3. Date of Next TSG-RAN WG3 Meetings:**

TSG-RAN WG3 Meeting#115-e 21st February - 3rd March 2022