3GPP TSG-RAN WG3 Meeting #111-e R3-211145

E-meeting, 25 Jan – 5 Feb 2021

**Title: Reply LS on 5MBS progress and issues to address**

**Response to: LS S2- 2009235 on 5MBS progress and issues to address from SA2**

**Release: Release 17**

**Work Item: FS\_5MBS, NR\_MBS-Core**

Source: RAN3

**To: SA2, RAN2, SA4**

**Cc:**

**Contact person: Yan Wang**

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

**Attachments:** **None**

# 1 Overall description

RAN3 thanks to SA2 on the LS on 5MBS progress and issues to address, about the SA2 identified aspects in the conclusion part that are dependent on RAN WGs feedback and/or confirmation, i.e. serveral Editor's notes in TR 23.757, RAN3 would like to provide feedback as follows：

1. *Editor's note: Whether the UE can stop receiving traffic of a multicast session without indicating leaving in CM-IDLE state or CM-CONNECTED with RRC-INACTIVE state relies on RAN WG feedback.*

**RAN3 feedback:** Subject to RAN2 further discussion and decision on whether the UE can receive the multicast session in CM-IDLE state or CM-CONNECTED with RRC-INACTIVE state.

1. *Editor's note: RAN and/or SA3 is assumed to determine the handling of the security for MBS traffic.*

**RAN3 feedback:** Subject to SA3 discussion.

1. *Editor's note: How the NG-RAN node notify session activation to UEs relies on RAN WG feedback.*

**RAN3 feedback:** To progress this topic, RAN3 would like to ask SA2 to clarify the differences between the following concepts: session start/session activation/session deactivation/session stop. In particular RAN3 would like to understand which ones apply to multicast and involve NG-RAN nodes. RAN3 would also like clarification on the presence of “AN resources with context and N3 tunnel for 5GC shared delivery” in the various associated states (started/activated/deactivated/stopped) when applicable.

RAN3 also deduces from the TR that a UE may be in any CM/RRC state at MBS Session activation/start.

Further, RAN3 would like to ask for confirmation from SA2 whether a UE is supposed to receive the MBS Session activation notification also when served by a non-supporting NG-RAN node.

RAN3 would like to ask RAN2 and SA2 to consider how to page the UEs which are not in RRC\_CONNECTED state, whether a group notification towards NG-RAN supporting MBS and, if applicable, to NG-RAN nodes not supporting MBS is needed/feasible/beneficial comparing to the legacy paging methods.

1. *Editor’s Note: How 5GC Shared MBS delivery is enabled for the UE will be developed with RAN WGs.*

**RAN3 feedback:** For Xn-based handover from MBS supporting node to non-MBS supporting node, it is assumed that switch from shared delivery to individual delivery will be take place during the path switch procedure. FFS for handover from non-MBS supporting node to MBS supporting node.

1. *Editor's note: It is FFS whether the support for lossless handover with data forwarding from source NG-RAN supporting 5MBS to the target NG-RAN not supporting 5MBS is needed, which needs confirmation by RAN.*

**RAN3 feedback:** RAN3 think that minimization of data loss should be targeted for this scenario; by which means is still up for discussions in RAN.

1. *Editor’s Note: Whether any assistance information from CN is needed, e.g. for PTP/PTM delivery method decision and switching, needs further confirmation when the relevant conclusion is reached in RAN WGs.*

**RAN3 feedback:** RAN3 already agreed and replied that no assistance information is foreseen at the moment.

1. *Editor's note: When and whether to establish or update the associated PDU session for 5GC individual MBS traffic delivery is ffs.*

**RAN3 feedback:** Xn mobility requires the associated QoS flow information to be available before mobility to a non-MBS supporting gNB takes place. RAN3 has already agreed that the reference to the MBS Session which the UE has joined. and, if applicable, the associated QoS flows, are included in a PDU Session Resources Item and maintained within the NG-RAN UE Context. The associated QoS flow information should, if applicable, be provided as early as possible, preferably at Joining.

About the question from SA4, RAN3 would like to feedback as follows:

1. *SA4 Question: “The existing BM-SC hosts the SYNC (for time synchronization) and RoHC function. The prime reason here is MBSFN operation. SA4 understands that the 5MBS feature does not yet have a requirement for synchronization across adjacent cells, but that the related RAN normative work item does not preclude its introduction in a later release. Does SA2 have any view on the need of SYNC and/or RoHC support in the MBSF-U?”*

**RAN3 feedback**: RAN3 already agreed that no SYNC protocol is supported in release 17.

# 2 Actions

**To SA2, RAN2 and SA4**

**ACTION:** RAN3 kindly asks SA2, RAN2 and SA4 take the feedback above into account in their discussion, and provide feedback if needed.

# 3 Dates of next RAN3 meetings

RAN3#112-e 17 May – 28 May Online