**3GPP TSG-RAN WG2 Meeting #113 electronic *R2-2100177(Part III)***

**Online, Jan 25 - Feb 5, 2021**

Agenda Item: 8.1.1

Source: MediaTek Inc.

**Title: Final proposals of email disc. [Post112-e][069][MBS] Delivery mode 2**

Document for: Discussion and decision

# Introduction

This document provides the final proposals on the following email discussion based on both phase 1 and phase-2 discussion:

* [Post112-e][069][MBS] Delivery mode 2 (MediaTek)

      Scope: Progress on solutions CP focus: MCCH or not for PTM configuration. PTM configuration change notification.

      Intended outcome: Report with agreeable proposals / identified open issues

      Deadline: Jan 12 2021 (7:00 UTC)

# Final proposals based on phase-1&phase-2 discussions

The following proposals are made and categorized based on summary of phase 2 email discussion:

**Green proposals (for block approval)**

**Proposal-1: Both idle/inactive UEs and connected mode UEs can receive MBS services transmitted by NR MBS delivery mode 2.**

**Proposal-3: The two-step based approach (i.e. BCCH and MCCH) as adopted by LTE SC-PTM is reused for the transmission of PTM configuration for NR MBS delivery mode 2.**

**Proposal-4: As a baseline, reuse LTE SC-PTM mechanism for the connected UEs to receive the PTM configuration for NR MBS delivery mode 2, i.e. broadcast based manner.**

 **Proposal-5: Reuse LTE SC-PTM mechanism (i.e. Broadcast mode based MCCH transmission) as the baseline for NR MBS delivery mode 2 and FFS for on-demand based MCCH transmission.**

**Proposal-6: MCCH change notification mechanism is used to notify the changes of MCCH configuration due to session start for delivery mode 2 of NR MBS.**

**Proposal-9: MBS Interest Indication is supported for UEs in connected mode for NR MBS delivery mode 2.**

**Proposal-10: MBS Interest Indication is not supported for UEs in idle/inactive mode for NR MBS delivery mode 2.**

**Proposal-11:Both USD and system information for purpose of service continuity can be provided for NR MBS delivery mode 2.**

**Proposal-12: As a baseline, support UE awareness of MBS services on frequency basis for service continuity for NR MBS delivery mode 2 (i.e. Reuse LTE SC-PTM mechanism).**

**Proposal-13: Support frequency prioritization during cell reselection for service continuity for NR MBS delivery mode 2 (i.e. Reuse LTE SC-PTM mechanism).**

**Yellow proposals (online discussion expected for RAN2#113e)**

**Proposal-2: RAN2 discuss if delivery mode 2 can support the transmission of multicast sessions.**

**Proposal-7: RAN2 to discuss if MCCH change notification mechanism can be used to notify the changes of MCCH configuration due to other purpose (e.g. modification of the transmission cycle for a service) for delivery mode 2 of NR MBS.**

**Proposal-8**: **RAN2 has a preference to use legacy MCCH change notification for NB MBS delivery mode 2 and then send LS to RAN1 to ask them to decide the detailed mechanism based on general LTE SC-PTM mechanism and NB-IoT/eMTC mechanism for MCCH change notification.**

**Proposal-14: For NR MBS delivery mode 2, PTM configuration can include both MTCH configuration and neighbor cell information.**

**Turquoise issues (open issues for further discussion)**

**Open issue 1: RAN2 further discuss if dedicated signaling based reception for PTM configuration is allowed for NR MBS delivery mode 2.**

**Open issue 2: RAN2 further discuss the area specific of MBS SIB and MCCH when** **the exact content of the MBS SIB and MCCH is defined**.

**Open issue 3:RAN2 further discuss the need and the method of PTM configuration to handle diverse requirement of different MBS service for NR MBS delivery mode 2 e.g. multiple MCCH based PTM configuration, one MCCH with diverse modification periods and repetition periods, etc.**

**Open issue 4: Further discuss on the need and the method of the enhancement for PTM change notification for delivery mode 2 of NR MBS.**

**Open issue 5: Further discuss on the need and the method of counting procedure for connectec UEs and Idle/Inactive UEs for delivery mode 2 of NR MBS.**

# References

1. *[Post112-e][069][MBS] Delivery mode 2 (MediaTek) \_ Phase 1 summary\_v3*
2. *[Post112-e][069][MBS] Delivery mode 2 (MediaTek) \_ Phase 2 summary\_v1*