**3GPP TSG-RAN WG2 Meeting #117-e........................................................... R2-22xxxx**

**e-Meeting, 21st February - 3rd March, 2022**

**Agenda Item:** 8.1.1

**Source:** CMCC

**Title:** Reply on [Post117-e][077][MBS] 38300 Running CR (CMCC)

**Document for:** Discussion and decision

# Introduction

This report summarizes the email discussion below that took place after RAN2#115-e meeting:

* [Post115-e][069][MBS] 38300 Running CR (CMCC)

Scope: Update the Stage-2 running CR. Capture R2 115-e agreements.

Intended outcome: Endorsed CR

Deadline: Short 2 (not for RP)

# Discussion

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| **Section** | **Comments** | **Rapporteur’s reply** |
| Coverage Sheet | HW: It sounds as if the NR MBS feature was enhanced while we only introduce it. Proposed rewording:  “This CR introduces the NR MBS feature.” | OK |
|  | VIVO: In our understanding, we haven’t specified anything for dynamic switching. In this sense, this terminology can be removed. | OK |
|  | HW: Some rewording suggested. | OK: Introduction of specific MBS, architecture, session management, protocol design, PTM/PTP dynamic switch, and service continuity aspects ->  Introduction of specific description of architecture, session management, protocol design, group scheduling and service continuity aspects for NR MBS feature. |
|  | SS: Related spec CRs info needed? | YES |
| 7.3.1 | Vivo, HW, SS: Comments related to usage of “MBS broadcast” and “MBS multicast” which is used broadly in RRC as well, replacing the “broadcast MBS” and “multicast MBS” | OK |
|  | Vivo: Maybe we can just remove “for MBS broadcast reception” as we have already mentioned “For MBS broadcast” in the heading. | We think the current wording seems cleaner. As in sidelink, it is specified as below:  “For sidelink, Other SI also includes:  - *SIB12* contains information related to NR sidelink communication;  - *SIB13* contains information related to *SystemInformationBlockType21* for V2X sidelink communication”  Let’s see other companies’ view. |
| 8.1 | Remove “s” following MCCH from SS and HW | OK |
| 16.x.4 | * MCCH can be mapped to DL-SCH; * MTCH can be mapped to DL-SCH.   Some comments from HW, SS and QC | * MCCH is mapping to DL-SCH; * MTCH is mapping to DL-SCH. |
|  | HW:Another agreed option is missing, i.e.:  “A UE can receive diffiernt services using same G-RNTI/G-CS-RNTI.” | A UE can receive different services using different G-RNTIs/G-CS-RNTIs. ->  A UE can receive same or different services using different G-RNTIs/G-CS-RNTIs. |
| 16.x.5.3.1 | *The target gNB supporting multicast can indicate the delta (difference) to the UE's AS configuration (as included in HandoverCommand) based on the received AS configuration.*  HW: This is business as usual for any kind of configuration. This whoile sentence can be removed.  CATT: maybe it is necessary to calrify that delta config is applicable when MRB ID changes during handover,according to the belwo agreement,  **=>MRB ID can be changed without releasing/adding MRB (delta config).**  so we suggest to add a NOTE as below ,  *NOTE:Unlike unicast, MRB ID can be changed by delta RRC Reconfiguration procedure in the case that the source gNB and the target gNB allocate different MRB IDs for the same MBS QoS flow(S), in order to maintain the receiving status of the PDCP instance so that the UE can send a PDCP Status Report after the handover to minimize data loss.* | We prefer to make the spec. simple and remove the part.  What other companies’ view? |
| 16.x.5.3.1 | The lossless handover for multicast service is supported for the handover between MBS supporting cells at least for the scenario where both source and target cells are configured with PTP RLC AM entity.  The agreement is as below:   **P10: It is assumed that Data forwarding and/or PDCP SR can be used during handover in case the UE is configured with PTP RLC AM entity in the target cell, regardless of whether PTP RLC AM entity was configured in the source cell.** | Updated sentence suggested by rapporteur: The lossless handover for multicast service is supported for the handover between MBS supporting cells if the UE is configured with PTP RLC AM entity in target cell MRB of a UE, regardless of whether the UE is configured with PTP RLC AM entity in the source cell or not. |
| 16.x.5.3.2 | *Mobility from a multicast supporting cell to a multicast non-supporting cell can be achieved by switching the traffic from delivery via MRB to delivery via DRB.*  HW: It should be clarified that a switch from MRB to DRB happens before the HO, as agreed, and that this means that shared delivery data can be sent on DRB in this case. We should modify this as follows:  “Mobility from a multicast supporting cell to a multicast non-supporting cell can be achieved by switching the traffic from delivery via MRB to delivery via DRB in the source gNB before a handover, while keeping shared deleivery in N2 interface in the source gNB. Thanks to this, the target gNB non-supporting MBS multicast can avoid using full configuration.”  ZTE:  We might not need to. Solution 1 or 2 are both agreed, and it is network choice about which and how: “No further optimizations are pursued for neither solution 1 nor 2 in Rel-17, i.e. it is up to network and/or UE implementation how to minimize/avoid data loss during handover to non-MBS supporting node with either solution 1 or 2, as agreed in the last meeting.”  NOKIA: This is only to minimise losses. Mobility without prior reconfiguration is also possible but this now seems lost. Perhaps a NOTE could be added like “ A UE may be handed over to a target gNB not-supporting MBS without prior reconfiguration from MRB to the DRB in the source gNB. In this case, the AS configuration is not comprehended by the target gNB causing full configuration.”  HW: OK to add the note, but it should be “the AS configuration may not be comprehended…”. gNB may be updated to comprehend the configuration even though it does not support MBS. | Updated sentence suggested by rapporteur:  Mobility from a multicast supporting cell to a multicast non-supporting cell can be achieved by switching the MRB to a DRB in the source gNB before a handover.  NOTE: A UE may be handed over to a target gNB not-supporting MBS without prior reconfiguration from MRB to the DRB in the source gNB. In this case, the AS configuration may not be comprehended by the target gNB causing full configuration. |
|  | * PTP Transmission: gNB individually delivers separate copies of MBS data packets to each UEs independently, i.e. gNB uses UE-specific PDCCH with CRC scrambled by UE-specific RNTI (e.g., C-RNTI) to schedule UE-specific PDSCH which is scrambled with the same UE-specific RNTI. | I prefer to keep current description, since this is from PDCP’s aspect. Whether it is PTP transmission or for HARQ retransmission depends on network implementation. |
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