3GPP TSG-RAN WG3 Meeting #119bis-e R3-231887

Online, 17th – 26th April 2023

Agenda Item: 15.2

Source: Ericsson (moderator)

Title: CB: # MBS1\_NetworkSharing- Summary of email discussion

Document for: Approval

# Introduction

This document reports the offline discussion on Agenda Item 15.2 on “Support for MBS reception in RAN sharing scenarios”.

Mdme chair summarized the contributions referenced in Section 5 as follows:

**CB: # MBS1\_NetworkSharing**

**- Review of previous WA: Associated Session ID is per TMGI per Area Session ID (pending on SA2?)**

**- How to enable option 4 (i.e., optionally establishing NG-U tunnel, and gNB decides establishing tunnel in later phase)**

**- In case of MOCN, impacts to F1 interface (e.g., single or multiple F1AP, single or multiple F1-U)**

**- Whether and how the MRB configuration are aligned in case of RAN sharing with multiple Cell IDs (e.g., DU to arbitrates)?**

**- Capture agreements and open issues, provide TPs if agreeable**

**- LS to other WGs?**

Please provide your comments for the first round by Wednesday April 19 2023 end of business.

# For the Chairman’s Notes

To be added

# Discussion First Round

## On our working assumption from last meeting

The moderator senses from the working assumption captured at the last meeting the wish to identify identical location dependent content by means of an explicit indication from 5GC, which – from the February meeting’s point of view – was nourished by the wish to allow that the MBS Associated Session ID is provided on a per Area Session ID basis.

While it appears that the MBS Associated Session ID, if represented by an SSM as currently defined, cannot be allocated on a per Area Session ID (especially if the same SSM is announced to the UE on application layer) the question arises whether the “core” of the Working Assumption still applies?

**Q1: Do you still support the “core” of the WA, i.e. to introduce an explicit indication for identifying identical location dependent content, and if so, to communicate this to SA2? If you do not support that view, please explain how observing “overlapping/common” cell/TAI would work in general deployment/topological cases.**

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## On an OAM RAN “solution” to provide the association between MBS Sessions IDs

CR0176r9 as attached to the LS R3-230789 received from SA2 in last meeting contains stage 2 description of an OAM solution that aims at substituting signaling via traffic interfaces by means of configuration.

While a multitude of documents comment that there cannot be any specification impact identified for RAN TSs, it is still rather uncommon that a TS outside TSG RAN responsibility contains normative text about RAN OAM.

**Q2: (a) Do you agree that there is no RAN specification impact on the OAM RAN solution and (b) do you agree that also SA2 should not have spent a single word on it in stage 2?**

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## NG functions to enable gNB deciding to not establish NG-U resources in MOCN

On enabling a gNB deciding to not establish NG-U, there are two aspects:

1. Introducing an explicit indication to 5GC in case that NG-U resources are not setup or any other NGAP protocol addition (and whether there needs to be a difference between unicast and multicast NG-U transport).
2. Introducing a new gNB triggered procedure (also seen in SA2 work) to request establishment of NG-U resources during an ongoing BC session (and whether there needs to be a difference between unicast and multicast NG-U transport.)

**Q3: Please provide your views on the 2 main NGAP aspects and also expand if necessary on any other additional missing main NGAP aspect missing?**

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## F1 functions to support MOCN

While it clear that for RAN sharing with multiple Cell-ID broadcast a per 5GC, for MOCN there are 2 options outlined in the papers

1. Establishing multiple Broadcast Contexts at the DU,   
   while it would be still possible to establish only one set of F1-U resources.
2. Establishing a single Broadcast Contexts at the DU,   
   inherently ending up in a single set of F1-U resources, with protocol additions to allow configuring MCCH content on a per TMGI basis where necessary.

**Q4: Please provide your views on the 2 basic F1 options for establishing Broadcast Context(s) at the DU for MOCN?**

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## PDCP aspects in case of RAN sharing with multiple Cell ID broadcast.

There is some discussion contained in the documents on how to deal with potential differences in the *MRB-PDCP-ConfigBroadcast*, as received at different logical DUs:

1. there could be a PDCP configurations per-defined by OAM
2. the PDCP configurations is chosen which is received via the same F1 interface from which user data is chosen to be broadcast.
3. or ?

**Q5: Please provide your views on the topic regarding selection of PDCP configuration in case of RAN sharing with multiple Cell ID broadcast.**

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## Any other issue

**Q6: Please provide details of any other main issue missing in this questionnaire.**

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# References

1. [R3-231187](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/docs/R3-231187.zip) Support of MBS in RAN sharing scenarios (Qualcomm Incorporated)
2. [R3-231197](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/docs/R3-231197.zip) Sharing processing for both unicast reception and broadcast reception (TD Tech, Chengdu TD Tech)
3. [R3-231252](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/docs/R3-231252.zip) Discussions and proposals concerning Rel-18 work on MBS reception in RAN sharing scenarios (Ericsson)
4. [R3-231283](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/docs/R3-231283.zip) (TP for TS 38.300) RAN Impacts of Rel-18 RAN Sharing Solutions (Nokia, Nokia Shanghai Bell)
5. [R3-231336](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/docs/R3-231336.zip) (TP for 38.473)Discussion on MBS RAN sharing (Samsung)
6. [R3-231350](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/docs/R3-231350.zip) (TP for 38.413/38.473/38.401) Discussion on efficient MBS reception in RAN sharing scenario (CATT,CBN,China Telecom)
7. [R3-231397](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/docs/R3-231397.zip) (TPs to TS 38.401, 38.410, 38.413, 38.473 BL CRs) MBS reception in RAN sharing scenario (Huawei, CBN)
8. [R3-231445](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/docs/R3-231445.zip) Remaining issue of supporting MBS reception in RAN Sharing (Lenovo) discussion
9. [R3-231503](https://www.3gpp.org/ftp/TSG_RAN/WG3_Iu/TSGR3_119bis-e/docs/R3-231503.zip) TP to TS 38.413 and 38.473 with discussion on network sharing of MBS (ZTE)