3GPP TSG-RAN WG2 #119 electronic R2-220xxxx

Electronic Meeting, Aug 17th – 29th, 2022

Agenda Item: 5.1.3.1.2

Source: Ericsson

Title: Summary of offline [232][MUSIM] Potential clarifications to MUSIM (Ericsson)

Document for: Discussion, Decision

# 1 Introduction

This contribution summarizes the following discussion:

* [AT119-e][232][MUSIM] Potential clarifications to MUSIM (Ericsson)

      Scope: Discuss the corrections for MUSIM marked for this discussion.

 Intended outcome: Report in in [R2-2208768](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_119-e/Docs/R2-2208768.zip).

 Deadline: Deadline 1 (report)

Companies are invited to fill in contact details.

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| **Company** | **Contact details** |
| Qualcomm | Ozcan Ozturk, oozturk@qti.qualcomm.com |
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# 2 Discussion

The paper in [1] contains the following proposal:

**Proposal: Define the field musim-GapLength as Mandatory IE.**

Since the CR related to this proposal is discussed in e-mail discussion 231, there is no need to repeat the discussion here, hence, the paper above will not be treated on this discussion.

The paper in [2] contains the following proposal:

**Proposal: Update the procedure text such that how to perform the MUSIM gap configuration procedure is specified in a new clause. The draft TP in Annex can be considered as baseline.**

**Q1 Do companies agree with the proposal above? Please also provide comments, if any, to the draft TP in [2].**

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| **Company** | **Yes/No** | **Comments** |
| Qualcomm | Yes | No strong preference since it is editorial |
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Since [3] was revied into [4], only [4] will be treated in this document.

The latter paper contains the following proposals:

**Proposal 1: RAN2 to confirm that MUSIM assistance information and signaling procedure for switching notifications are only carried out as MCG Configuration change for Rel-17.**

**Proposal 2: The gap configurations signalled from Master cell-group is used by UE to switch from NTWK-A completely including MCG and SCG operations for Rel-17.**

**Proposal 3: Cell-Group specific MUSIM Gap configuration and leave notification should be considered in Rel-18 WID.**

**Proposal 4: Uplink transmission for SPS and CG are allowed during MUSIM Gap based on network control.**

**Proposal 5: UE may indicate the support for uplink transmission during MUSIM Gap as optional capability**

**Proposal 6: RAN2 to consider inclusion of absence time or preferred return time to minimise the user plane data interruption and packet loss due to release of RRC connection for MUSIM switching for short absence.**

**Q2 Do companies agree with the proposals above? In the Yes/No column, please state whether you agree/disagree with each of the proposals above.**

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| **Company** | **Yes/No** | **Comments** |
| Qualcomm | No | None of these are essential corrections. P3 can be discussedin Rel-18 WI directly. We do not want to introduce any new signaling or UE behavior for MUSIM unless something is critcally broken, which is not the case here. If SN sends a MUSIM gap applicable to SCG configuration only (e.g. for FR1 MN and FR2 SN case) via SRB3, then it has no impact on MCG and also UE implementation. Such decision can be left to NW implementation. Our RAN2 agreement was not to introduce any additional signaling for DC so better leave at that. Rel-18 can of course introduce optimizations if there is support. |
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The CR in [5] intends to clarify that UE start or re-start of timer when UE assistance information triggering corresponds to MUSIM assistance information, upon receiving the field *reconfigurationwithsync*, is applicable only for MCG.

**Q3 Do companies agree with the intention of the CR above?**

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| **Company** | **Yes/No** | **Comments** |
| Qualcomm | No | As in Q2, nothing is broken. No new functionality is needed. |
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The paper in [6] contains the following proposals:

**Proposal 1: The PTW related parameters shall be included in GAP configuration.**

**Proposal 2: Three new parameters shall be added in UAI for GAP configuration:**

* **Timer 1: the length of PTW**
* **Timer 2: the length of non-PTW**
* **The SFN and sub frame of the beginning of PTW**

**Q4 Do companies agree with the proposals above? In the Yes/No column, please state whether you agree/disagree with each of the proposals above.**

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| **Company** | **Yes/No** | **Comments** |
| Qualcomm | No | This is against the very basic principle of MUSIM WI that NW A does not coordinate or optimize the UE behavior on NW B. It is a very specific optimization and thus can not be considered in essential correction phase. |
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The paper in [7] contains the following proposal:

**Proposal: The UE shall release the MUSIM gap upon initiating the RRC re-establishment procedure if the UE is not configured with conditionalReconfiguration, and the UE releases the MUSIM gap upon selecting a suitable NR cell and the selected cell is not one of the candidate cells for conditional handover, instead of upon receiving the RRC re-establishment message from the gNB.**

**Q5 Do companies agree with the proposal above?**

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| **Company** | **Yes/No** | **Comments** |
| Qualcomm | No | The UE does release MUSIM gap configuation upon re-establishment initiation. We don’t need to optimize this for CHO recovery.  |
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The paper in [8] contains the following proposals:

**Proposal 1: Upon initiation of re-establishment procedure, the UE stops timer T346g, if running.**

**Proposal 2: RAN2 to discuss whether to add the following NOTE in clause 5.3.7.2 as follows:**

**NOTE: It is up to UE implementation whether to initiate the procedure while T346g timer is running**.

**Q6 Do companies agree with the proposals above? In the Yes/No column, please state whether you agree/disagree with each of the proposals above.**

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| **Company** | **Yes/No** | **Comments** |
| Qualcomm | No | It wouldn’t make sense for a UE to initiate re-establishment and then leave NW connection due to T346g. So this can be left to the UE implementation. Even if a UE does this, nothing is broken as a UE can always abort re-establisment for other reasons. |
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# 3 Conclusion

- To be updated after discussion on section 2 -

# 4 References

1. R2-2208032 Discussion on gap length IE optionality Ericsson discussion, RAN2#119-e, Eletronic Meeting, Aug 17th – 29th, 2022
2. R2-2208344 Clarification on performing MUSIM gap configuration procedure Samsung Electronics Co., Ltd discussion Rel-17, RAN2#119-e, Eletronic Meeting, Aug 17th – 29th, 2022
3. R2-2208035 On Remaining Issues ofr MUSIM Switching Procedures Nokia, Nokia Shanghai Bell discussion Rel-18, RAN2#119-e, Eletronic Meeting, Aug 17th – 29th, 2022
4. R2-2208683 On Remaining Issues ofr MUSIM Switching Procedures Nokia, Nokia Shanghai Bell discussion Rel-17, RAN2#119-e, Eletronic Meeting, Aug 17th – 29th, 2022
5. R2-2207994 Clarification for MUSIM Assistance Information in DC for reconfiguration with Sync Nokia, Nokia Shanghai Bell CR Rel-17, RAN2#119-e, Eletronic Meeting, Aug 17th – 29th, 2022
6. R2-2207670 Support eDRX in Multi-SIM scenario Spreadtrum Communications discussion Rel-17, RAN2#119-e, Eletronic Meeting, Aug 17th – 29th, 2022
7. R2-2207961 Discussion on the MUSIM gap release during RRC reestablishment Huawei, HiSilicon discussion Rel-17, RAN2#119-e, Eletronic Meeting, Aug 17th – 29th, 2022
8. R2-2208369 Further discussion on re-establishment handling while T346g timer is running Samsung Electronics Co., Ltd discussion Rel-17, RAN2#119-e, Eletronic Meeting, Aug 17th – 29th, 2022