3GPP TSG-RAN WG3 Meeting #123 R3-240842

**Athens, GR, 26 Feb – 01 Mar, 2024**

**Agenda Item: 9.1.12.1**

**Source: Huawei**

**Title: Summary of offline discussions on CB: # 14\_Multisim**

**Document for: Discussion and approval**

# Introduction

This contribution discusses the following CB.

**CB: # 14\_Multisim**

* **Check the solution in 0310**
* **Check RAN2 progress on MUSIM capability restriction over Xn**

(moderator - HW)

Summary of offline disc [R3-240842](Inbox\R3-240842.zip)

# 2 For the Chairman’s Notes

Proposal:

# 3 Discussion

## 3.1 F1AP CR - Filter information for temporary capabilities restriction

In R3-240310, it is proposed that:

* Introduce the “*musim-CandidateBandList*” IE in the CU to DU RRC Information in the UE context setup request message and modification request message.

There are some comments to check whether the band information could be decided by the DU.

The moderator wants to highlight that for the measurement gap configuration, it is the CU that includes the MO list information (i.e., the band information) to the DU, so that the DU can generate the measurement gap configuration. Specifically,

* In the *CU to DU RRC Information* IE, the *MeasConfig* IE is included.

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| --- | --- | --- | --- | --- | --- | --- |
| MeasConfig | O |  | OCTET STRING | Includes the *MeasConfig* IE, as defined in TS 38.331 [8] (without the *MeasGapConfig* IE).  For EN-DC/NGEN-DC operation, includes the list of FR2 frequencies for which the gNB-CU requests the gNB-DU to generate gaps.  For NG-RAN, NE-DC and MN for NR-NR DC, includes the list of FR1 and/or FR2 frequencies, for which the gNB-CU requests the gNB-DU to generate gaps and the gap type (per-UE or per-FR). | - |  |

* In the *MeasConfig* IE, it is defined in TS 38.331 as excerpted below, where the band list information is highlighted.

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| MeasConfig ::= SEQUENCE {  measObjectToRemoveList MeasObjectToRemoveList OPTIONAL, -- Need N  measObjectToAddModList MeasObjectToAddModList OPTIONAL, -- Need N  *<Skip the irrelevant >*  MeasObjectToAddModList ::= SEQUENCE (SIZE (1..maxNrofObjectId)) OF MeasObjectToAddMod  MeasObjectToAddMod ::= SEQUENCE {  measObjectId MeasObjectId,  measObject CHOICE {  measObjectNR MeasObjectNR,  ...,  measObjectEUTRA MeasObjectEUTRA,  measObjectUTRA-FDD-r16 MeasObjectUTRA-FDD-r16,  measObjectNR-SL-r16 MeasObjectNR-SL-r16,  measObjectCLI-r16 MeasObjectCLI-r16,  measObjectRxTxDiff-r17 MeasObjectRxTxDiff-r17,  measObjectRelay-r17 SL-MeasObject-r16,  measObjectNR-SL-v1800 MeasObjectNR-SL-v1800  }  }  *<Skip the irrelevant >*  MeasObjectNR ::= SEQUENCE {  ssbFrequency ARFCN-ValueNR OPTIONAL, -- Cond SSBorAssociatedSSB  ssbSubcarrierSpacing SubcarrierSpacing OPTIONAL, -- Cond SSBorAssociatedSSB  *<Skip the irrelevant >* |

Hence following the same logic, for multi-SIM, the CU can determine the candidate band list for temporary capabilities restriction, and send to the DU.

Proposal: Agree the CR in R3-240310

Question: If you have different understanding, please provide your comment below.

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| **Company** | **Comment** |
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Moderator summary:

## 3.2 XnAP CR - Support MUSIM capability restriction

In R3-240673, it is proposed that:

* Include the MUSIM Capability Restriction Indication in Handover Request and Context Fetch procedure.

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| >MUSIM Capability Restricted Indication | O |  | ENUMERATED (true, …) | Corresponds to the musim-CapabilityRestrictionIndication-r18 IE, as defined in TS 38.331 [10]. | YES | ignore |

The moderator copies the RAN2 agreements just made on Monday as follows.

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| Issue 2, UAI/Early indication processing during handover procedure  [*R2-2400605*](Docs\R2-2400605.zip) Remaining issue of MUSIM temporary capability restriction NEC discussion Rel-18 NR\_DualTxRx\_MUSIM-Core  *Proposal 1: The legacy handing for Rel-17 MUSIM UAI information during handover procedure is reused for temporary capability restriction of MUSIM.*  *Proposal 2: No further enhancement is needed for early indication of temporary capability restriction during handover.*  Discussions based on the contribution(s) above:   * Xiaomi support P1, and think early indication needs to be forwarded. Nokia agree. QC agree and think early indication can be added. * LG has different understanding, and think we need to handle the timers. * The legacy handling for Rel-17 MUSIM UAI information during handover procedure is reused for temporary capability restriction of MUSIM. * No further enhancement is needed for early indication of temporary capability restriction during handover. * Can discuss further any impact to the RRC specification |

RAN2 has made firm agreement that no further enhancement to signal the early indication of the temporary capability restriction (i.e. the indicator received in Msg5) during the handover.

The moderator understands there is no need for RAN3 to make further enhancement, and has the following proposal.

Proposal: From RAN3 perspective, no enhancement is needed for the early indication of temporary capability restriction during handover.

Question: Your view of the proposal?

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| **Company** | **Comment** |
| Huawei | Agree |
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Moderator summary:

# 4 References

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| [R3-240310](Docs\R3-240310.zip) | Filter information for temporary capabilities restriction in Multi-SIM (Huawei, Qualcomm Incorporated, Deutsche Telekom, ZTE, Samsung) | CR1293r, TS 38.473 v18.0.0, Rel-18, Cat. F  E///: The band information is in charge of gNB-DU, open to discuss it further  **CB: # 14\_Multisim**   * **Check the solution in 0310** * **Check RAN2 progress on MUSIM capability restriction over Xn**   (moderator - HW)  Summary of offline disc [R3-240842](Inbox\R3-240842.zip) |
| [R3-240673](Docs\R3-240673.zip) | Support MUSIM capability restriction over XnAP (Ericsson) | CR1214r, TS 38.423 v18.0.0, Rel-18, Cat. F  ZTE: RAN2 discussed this issue, and no conclusion yet  HW: Check progress in RAN2 |