**3GPP TSG-RAN WG2 Meeting #119bis R2-22xxxx**

**e-Meeting, 10-19 October 2022**

**Source: Qualcomm Incorporated**

**Title: [DRAFT] Summary of email discussion [AT119bis-e][011][NR17] Misc (Qualcomm)**

**Document for: Decision**

**Agenda Item: 6.24.1**

# Introduction

This document provides a summary for the following email discussion.

* [AT119bis-e][011][NR17] Misc (Qualcomm)

 Scope: Treat R2-2209620, R2-2209798, Determine agreeable parts, Based on agreeable parts, progress CRs,

 Intended outcome: Report, Agreed-in-principle CRs, Approved LS out if applicable.

 Deadline: In time for CB W2 Mon (if CB is needed)

NOTE: Two CRs are discussed in this email discussion. Rapporteur does not provide explanations for the content of the CRs as he found the cover page of those CRs well describes the reason for proposed change.

# Discussion

Companies providing input to this email discussion are requested to leave contact information below.

|  |  |  |
| --- | --- | --- |
| **Company** | **PoC** | **Email** |
| Qualcomm Incorporated | Masato Kitazoe | mkitazoe@qti.qualcomm.com |
| Ericsson | Lian Araujo | lian.araujo@ericsson.com |
| MediaTek | Felix Tsai | Chun-fan.tsai@mediatek.com |
| Apple | Fangli XU | fangli\_xu@apple.com |
| ZTE | Mengjie Zhang | zhang.mengjie@zte.com.cn |
| Huawei, HiSilicon | Xubin | xubin10@huawei.com |
| Nokia, Nokia Shanghai Bell | Tero Henttonen | tero.henttonen@nokia.com |
| vivo | Jing Liang | liangjing@vivo.com  |
| CATT | Jie Shi | shijie@catt.cn |
| Samsung  | June Hwang | june77.hwang@samsung.com |

* 1. CRS-IM default network configuration assumptions for MBSFN configuration in non-DSS scenario

|  |  |  |
| --- | --- | --- |
| [R2-2209620](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_119bis-e/Docs/R2-2209620.zip) | CRS-IM default network configuration assumptions for MBSFN configuration in non-DSS scenario | Qualcomm Incorporated |

**Question 1:** Companies are requested indicate whether they agree to the CR. If not, please leave the reason in the comment section.

|  |  |  |
| --- | --- | --- |
| **Company** | **Yes/No** | **Comment** |
| Ericsson | Yes |  |
| MediaTek | Yes |  |
| Apple | Yes |  |
| ZTE | Yes |  |
| Huawei, HiSilicon | Yes |  |
| Nokia, Nokia Shanghai Bell | Yes (with clarifications) | We agree with the intent that IF the default assumptions are used (i.e. the field in question is NOT configured) and LTE CRS pattern is NOT provided, then UE assumes no MBSFN is configured. However, as is easy to read from just this sentence, understanding this from specification is behind far too many “not-statements”. We have some proposals to improve the CR text due to this.Cover page: The cover page could make it a bit clearer this is about default assumptions (i.e. when the field is NOT provided). This is a bit pedantic, but we would like to make sure this doesn’t lead to additional misunderstandings, so would propose some clarifications:**Reason for change (changes highlighted):**In R2-2204489 (R4-2207238), RAN4 indicated for the CRS-IM default network configuration assumptions,* *For scenario 1, MBSFN configuration is same as that indicated in the existing IE RateMatchPatternLTE-CRS by the serving cell. For scenario 2, MBSFN is not configured.*

NOTE: Scenario 1 is DSS. Scenario 2 is non-DSS.RAN2 did not capture the second part, potentially with the assumption that for the default assumptions, it would be clear that MBSFN is not configured when the specification does not mention anything.However, this can lead to the following two interpretations for the case when default assumptions are valid:1. MBSFN is not configured (correct interpretation)
2. MBSFN is configured but configuration is not known. The UE has to detect whether MBSFN is configured and its configuration.

**Summary of change (changed highlighted):**The CRS-IM default network configuration assumptions are clarified so that in scenario where LTE-CRS rate matching pattern is not configured (i.e. non-DSS scenario), UE can assume network has not configured MBSFN subframes.CR text: The added text essentially “not B if not A”, which makes it difficult to understand. At least we could use “if not A, then not B”. Additionally, perhaps using “if absent” for the LTE CRS pattern could make it easier, i.e. the following is what we would propose“If *RateMatchPatternLTE-CRS* is absent for the serving cell, MBSFN is not configured for the cell”We could also tag this to the previous line which mentions the MBSFN configurations to explain the whole MBSFN case in one line, i.e. as shown below (highlighted part):- The MBSFN configuration is the same as the one indicated in *RateMatchPatternLTE-CRS* if configured for the serving cell. If *RateMatchPatternLTE-CRS* is absent for the serving cell, MBSFN is not configured. |
| Qualcomm Incorporated | Yes | Fine with Nokia’s suggestions above.On the CR text, since RateMatchPatternLTE-CRS is need M field with SetupRelease structure, the condition text should be “if RateMatchPatternLTE-CRS is **configured”.** |
| vivo | Yes |  |
| CATT | Yes |  |
| Samsung  | Yes  |  |

* 1. Clarification on the NR HST configuration

|  |  |  |
| --- | --- | --- |
| [R2-2209798](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_119bis-e/Docs/R2-2209798.zip) | Clarification on the NR HST configuration | Apple |

**Question 2:** Companies are requested indicate whether they agree to the CR. If not, please leave the reason in the comment section.

|  |  |  |
| --- | --- | --- |
| **Company** | **Yes/No** | **Comment** |
| Ericsson | Yes | If this gets in-principle agreed and hence will be re-submitted to the Nov-meeting for final agreement, then an impact analysis should be added to the cover page. |
| MediaTek | Yes |  |
| Apple | Yes | The impact analysis can be added in the resubmitted version.  |
| ZTE | Yes |  |
| Huawei, HiSilicon | Ok for the 1st change | For 2nd and 3rd changes, we understand that the original sentence “this parameter only applies to Scell (or SpCell)” means this parameter can be optional if included in Scell (or SpCell) configurations, otherwise it should be absent. So the current spec should be clear. [Apple] For the 2nd and 3rd change, in our understanding, the current wording “applies to”, does not mean the configuration itself, but the location where the requirement is applied to. [Huawei2] Thanks for clarifications. If the majority of companies think the sentence is for measurement scope rather than configuration scope, we can be also fine.We have one more comment:We note that for ***highSpeedMeasCA-Scell***, the follownig changes are made:the UE shall apply the enhanced RRM requirements to the serving frequency of SCell forThis parameter only applies to the serving frequency of SCell.We wonder whether we are going to introduce duplicated text or not, as both two places are mentioning the same UE behaivour. As a comparison, for ***highSpeedMeasFlag***, there is only one change, and other field descriptions are unchanged.This parameter only applies to the serving frequency of SpCell.In addition, we have some further comments on the cover page:* The template version should be v12.2
* Clauses affected should be 6.3.2

[Apple] Thanks for your comments. The coversheet should be updated accordingly in the revised version.  |
| Nokia, Nokia Shanghai Bell | Maybe (intent is unclear) | Impact analysis is needed to understand the CR. Otherwise it’s difficult to see how the existing text can be read incorrectly: The requirements are per carrier, and the text indicates they apply for the SpCell, and we agree that should be for the SpCell carrier, not only the SpCell. We assume that the intent is that some UEs might think the requirements only apply to SpCell but not all the other cells in the carrier – is that correct understanding?[Apple] Yes, it's exactly what we want to clarify in this CR. spec The current protocol description is misunderstood as the HST specific RRM requirement is only applicable to a specific cell, but not the carrier. We agree that the impact analysis is missing and will add it later.  |
| Qualcomm Incorporated | Yes | Huawei’s comment may be something we need to look into.**highSpeedMeasFlag**It can be signalled in ServingCellConfigCommon and ServingCellConfigCommonSIB. Then the text “This parameter only applies to SpCell” is not accurate because it does not cover idle mode.So we need to clarify:* In idle mode, the measurement is on the serving frequency.
* In connected mode
	+ the measurement is on the frequency of SpCell.
	+ The parameter is configured only for SpCell (should we use conditional presence?)

[Apple] For IDLE/INACTIVE mode, we can regard the UE working on the carrier of SpCell. Therefore, the “serving frequency of SpCell” can cover both RRC CONNECTED state and IDLE/INACTIVE state. **highSpeedMeasCA-Scell*** The first change of the CR is needed.
* In addition, it should be clarified that the parameter is configured only for SCell (should we use conditional presence?)

[Apple] we are fine to have the clarification. **highSpeedMeasInterFreq**Huawei’s comment makes me wonder if we also need to clarify this field is only configured for SpCell.[Apple] We agree that the clarification on the configuration part needs to be clarified.  |
| vivo | Yes | We also have some sympathy that we may need more clarification on the parameter configurations (for SCell/SpCell) as Huawei and Qualcomm mentioned. |
| CATT | Yes |  |
| Samsung  | Yes |  |

# Conclusion