**3GPP TSG RAN WG1 #112 R1-2301846**

**Athens, Greece, February 27th – March 3rd, 2023**

**Source: Moderator (Intel Corporation)**

**Title: Moderator Summary for Rel. 17 NR FeMIMO –**

**Maintenance on HST-SFN (Round 0)**

**Agenda item: 8.1**

**Document for: Discussion and Decision**

# Introduction

A moderator summary of maintenance issues related to Rel-17 FeMIMO HST-SFN based on contributions submitted to RAN1#112 is provided below. A total of 1 issue has been identified from one submitted draft CR [1]. Along with the issue summary, an initial moderator assessment is also provided. The initial assessment can be further updated based on company inputs.

Since there is no preparation phase in RAN1#112 as per Mr. Chairman’s guidance, companies are requested to **provide their inputs on Issue 1 by Monday February 27, 2022, 4pm local time in Greece.** Based on the inputs, whether the CR is treated in RAN1#112 can be finalized in the first online session.

# Maintenance Issues

* 1. Issue 1: Aligning parameter names related to SFN schemes in 38.214

A draft CR from Ericsson has been submitted to align terminology of TS 38.214 with UE capability parameters in TS 38.306 [1]. The summary of proposed changes is provided below.

Table 1: Summary of Issue 1

|  |  |  |
| --- | --- | --- |
| **Issue (summary of CR proposal)** | **Initial FL assessment** | **Company inputs (if any)** |
| Draft CR for TS 38.214 Section 5.1 provided in [1]:  **Summary of change**:  Parameter for UE capability name “[*nonSfnPdsch-sfnPdcch*]“ is replaced with “*sfn-SchemeA-PDCCH-only*“ to align with parameter name in 38.306. The suffix -r17 is removed, since there is no risk for ambiguity  **Proposed Change:**   |  | | --- | | 5.1 UE procedure for receiving the physical downlink shared channel  < Unchanged parts are omitted >  If a UE is configured with *sfnSchemePdcch* set to 'sfnSchemeA' for a DL BWP and activated with two TCI states by MAC CE, and the UE does not report its capability of *sfn-SchemeA-PDCCH-only-r17*, the UE is expected to be configured with *sfnSchemePdsch* set to *'sfnSchemeA'* and indicated with two TCI states in a codepoint of the DCI field *'Transmission Configuration Indication',* if the PDSCH is scheduled by DCI format 1\_1/1\_2.  < Unchanged parts are omitted > | | **Editorial** - Discuss in RAN1#112 | * **Discuss:** * **Not Discuss:** |

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| --- | --- |
| **Company Name** | **Company inputs (if any)** |
| Mod | This is a valid issue and should be editorial in nature. Initial FL assessment is to discuss this issue in RAN1#112.  For removing the suffix “-r17”, note that currently both TS38.331 and TS38.306 lists the corresponding parameter as “*sfn-SchemeA-PDCCH-only-r17”.* Therefore, companies can also comment on whether the suffix should be removed or not. |
| ZTE | Agree with FL’s assessment that this is editorial CR and also correct.  Either removing the suffix “-r17” or not is fine from technical point of view. Note that most of RRC parameters in TS 38.214 is without the suffix from Rel-15 and onwards, it is slight proper to remove it. |
| Spreadtrum | Agree with FL’s assessment |
| vivo | Agree with FL’s assessment.  Also share the same view with ZTE, removing “-r17” is better. |
| OPPO | We are also fine with the FL’s assessment without the suffix. |
| Google | We agree with FL and be OK to remove the suffix. |
| LG | We agree with FL and be OK to remove the suffix. |
| Docomo | We are fine with the CR with removing the suffix.  Based on RAN2 LS(R2-2011037), we should remove suffix in RAN1 spec. for future maintenance of specification. (E.g. If we keep the suffix in RAN1 spec, if RAN2 will update RRC parameter of *sfn-SchemeA-PDCCH-only* in future release, RAN1 will also need to update it in RAN1 spec.) |
| Samsung | Agree with FL’s assessment, and we are fine with either remove or maintain the suffix “-r17”. BTW, in the latest version of TS38.214, there are many suffix “-r17”. |
| Ericsson | We agree with FL’s assessment for this CR as editorial CR in nature, and prefer to remove the suffix “-r17”. |
| Lenovo | We agree with FL’s assessment and are fine to remove the suffix “-r17”. |
| Mod | Based on the comments, all companies seem OK with the CR and for removing the suffix “-r17”. Since the original CR contains the suffix, the following text is proposed.   |  | | --- | | 5.1 UE procedure for receiving the physical downlink shared channel  < Unchanged parts are omitted >  If a UE is configured with *sfnSchemePdcch* set to 'sfnSchemeA' for a DL BWP and activated with two TCI states by MAC CE, and the UE does not report its capability of *sfn-SchemeA-PDCCH-only~~-r17~~*, the UE is expected to be configured with *sfnSchemePdsch* set to *'sfnSchemeA'* and indicated with two TCI states in a codepoint of the DCI field *'Transmission Configuration Indication',* if the PDSCH is scheduled by DCI format 1\_1/1\_2.  < Unchanged parts are omitted > | |

# References

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|  | R1-2301661 | Draft CR aligning parameter name related to SFN schemes in 38.214 | Ericsson |