**3GPP TSG-RAN WG2 Meeting #119bisR2-220xxxx**

**Electronic October 2022**

**Title:** LS on further further questions on feMIMO RRC parameters

**Response to: -**

**Release:** Rel-17

**Work Item:** NR\_feMIMO-Core

**Source:** 3GPP TSG-RAN WG2

**To:** 3GPP TSG-RAN WG1

**Contact Person:**

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**Attachments:** None

1. **Overall Description:**

**BWP and cell ID in unified TCI state for SRS**

RAN2 discussed the need for BWP and cll ID for unified TCI state for SRS.

In *SRS-config*, *SRS-Resource* is configured with the unified TCI states:

srs-TCIState-r17 CHOICE {

srs-UL-TCIState-r17 TCI-UL-State-Id-r17,

srs-DLorJoint-TCIState-r17 TCI-StateId

} OPTIONAL -- Need R

]]

RAN2 understand that there should be serving cell and BWP associating with the present UL TCI state or DL/Joint TCI state.

For the case that the UL TCI state is present, RAN2 understands there are two alternatives associating the BWP and serving cell with the UL TCI state:

1: Add the separate fields BWP ID and Cell ID in *srs-UL-TCIState-r17*

2: Add an indication in the field description of *srs-TCIState-r17* that the present UL-TCI-State is associated with the BWP and serving cell where the *SRS-Config* is configured.

For the case that the Joint TCI state is present, RAN2 understands there are also two alternatives associating the BWP and serving cell with the Joint TCI state:

1: Add the separate fields BWP ID and Cell ID in *srs-DlorJoint-TCIState-r17*

2: Add an indication in the field description of *srs-TCIState-r17* that the Joint TCI state shall be associated with the serving cell where the *SRS-Config* is configured and the current active DL BWP of this serving cell.

**Question 1**

According to above RAN2 understandings, RAN2 would like to ask RAN1 to explain what the association of BWP and cell ID for srs-TCIState is.

**Codebookmode for codebookConfig**

RAN2 also discussed the need of codebook mode for *CodebookConfig-r17.*

**Question 2**

RAN2 would like to ask RAN1

1. Is there a need to add one or more parameters about “codebook mode” which selects mode1 or mode2 in IE CodebookConfig-r17?
2. If a) is correct, Is it further correct understanding that “codebook mode” should only be configured for Rel-17 Type-1 codebook with two groups and that for the Rel-17 Type-2 codebook, codebookMode-v1730 is not required?
3. If b) is not correct, is there a need for more than one codebook mode parameters, that is one for single TRP operation and another for NCJT?
4. If there is need for codebook mode for Type 1 codebook with two groups, do each group need own codebook mode configuration?

**2. Actions:**

**To RAN1 group:**

**ACTION:** RAN2 respectfully asks RAN1 to provide responses to above questions.

**3. Date of Next TSG-RAN WG2 Meetings:**

TSG-RAN WG2 Meeting #120 November 2022 Toulouse

TSG-RAN WG2 Meeting #121 February 2023 Athens