**3GPP TSG RAN Meeting #92-e RP-211536**

**Electronic Meeting, June 14-18, 2021**

**Agenda item:** 9.7.1.1

**Source:** Moderator (Samsung)

**Title:** Moderator’s summary for email discussion [92-e-08-feMIMO-Scope]: Part 2

**Document for:** Discussion and Decision

1. Introduction and background

Per chairman’s instruction, the goal and pertinent contributions for this email discussion is as follows:

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| [92-e-08-feMIMO-Scope] | RP-211035, 1152, 1186, 1190, 1217, 1302, 1359, 1364, 1463, 1187 (feMIMO part) | Eko Onggosanusi, Samsung | 9.7.1.1, 9 |

After the initial and intermediate rounds, the following WF was endorsed in the second GTW session:

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| *On the scope of Rel-17 NR\_FeMIMO:*1. *RAN confirms that inter-cell mTRP in RAN1 work only considers multi-DCI and multi-PDSCH reception (per WI objective). Any scheme tailored for reception of a single PDCCH and/or a single PDSCH is not supported in Rel-17 mTRP.*
2. *Regarding scope and workflow of L1/L2-centric inter-cell beam management for multi-beam enhancement, for Rel-17:*
	1. *Only scenario for inter-cell-mTRP-like model (with no change in serving cell) will be considered in Rel-17.*
		* *Scenarios where change in serving cell via a L1/L2-triggered handover scheme are not considered in Rel-17 and may be considered in Rel-18*
		* *Further discuss how to clarify the Rel-17 objectives associated with scenario 1 for L1/L2-centric inter-cell beam management (during later round(s))*
	2. *Only intra-DU and intra-frequency scenarios will be considered in Rel-17 (excluding inter-DU or inter-frequency scenarios)*
	3. *In RAN1#106-e, conclude on the synchronization and the timing advance assumptions between the cells*
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To proceed with the underlined part, the following starting point can be used for discussion (based on some previous comments from Apple and Huawei):

* Scenario 1 implies that only one cell is selected at a time and a UE does not need to communicate with more than one cells simultaneously. The selection is performed by dynamic switching of indirect QCL source for PDCCH/PDSCH of the serving cell among associated cells via L1/L2 signaling

Once the group converges on the objectives, the WID will be revised accordingly.

1. Final round

During the final round, interested companies are encouraged to share their view on the following starting point:

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| The objectives associated with scenario 1 of L1/L2-centric inter-cell beam management for multi-beam enhancement are:* [RAN1] Specify features for inter-cell beam management where only one cell is selected at a time and a UE does not need to communicate with more than one cells simultaneously.
	+ The selection is performed by dynamic switching of indirect QCL source for PDCCH/PDSCH of the serving cell among associated cells via L1/L2 signaling
* [RAN2] ...
 |

* 1. Compilation of companies’ inputs

Table 1 Inputs

|  |  |
| --- | --- |
| **Company** | **View** |
| Mod V0 | **Please share your views on the objectives associated with scenario 1 of L1/L2-centric inter-cell beam management for multi-beam enhancement:*** **Please use the above as the starting point (copied below for convenience)**

*The objectives associated with scenario 1 of L1/L2-centric inter-cell beam management for multi-beam enhancement are:** *[RAN1] Specify features for inter-cell beam management where only one cell is selected at a time and a UE does not need to communicate with more than one cells simultaneously.*
	+ *The selection is performed by dynamic switching of indirect QCL source for PDCCH/PDSCH of the serving cell among associated cells via L1/L2 signaling*
* *[RAN2] ...*
 |
| FUTUREWEI | This level of details may take some time for the group to converge. For example, the exact meaning of “at a time” and “communication with more than one cells simultaneously” need clarification and commonly understood by the group. The UE should measure and report for beam management for more than one cells. A suggested wording is “Each L1 channel/signal transmission/reception is to/from a single cell”. The sub-bullet (“The selection …”) seems too detailed as a specific solution which need discussion in WG. Since we may only have time for one round of email discussion, we’d like to suggest updating the WID text based on the agreement so far and leave as much details to WG discussion as possible. |
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* 1. Summary and moderator proposals

During the final round, ...

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| **Proposed way forward (WF) (after the final round)**: *For Rel-17 NR\_FeMIMO, the objectives associated with scenario 1 of L1/L2-centric inter-cell beam management for multi-beam enhancement are:** *...*
 |

1. Extended round

During ...

* 1. Compilation of companies’ inputs

Table 2 Inputs

|  |  |
| --- | --- |
| **Company** | **View** |
|  |  |
|  |  |

* 1. Summary and moderator proposals

# References

1. RP-202024 Revised WID: Further enhancements on MIMO for NR Samsung