**3GPP TSG-RAN WG4 Meeting #104-e R4-2214362**

**Electronic Meeting, Aug 15 – Aug 26, 2022**

**Title:** LS on CRS-IM network assistance signalling

**Release:** Rel-17

**Work Item:** NR\_demod\_enh2-Perf

**Source:** RAN WG4

**To:** RAN WG2

**Cc:**

**Contact Person:**

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**Attachments:**

**1. Overall Description:**

In the past RAN4#102-e and RAN4#103-e meetings, RAN4 has agreed the UE capability and network assistant signalling for CRS interference mitigation (CRS-IM), and the corresponding LSs R4-2207238, R4-2210435 were sent to RAN2.

In this RAN4#104-e meeting, the network assistance signalling for CRS interference mitigation (CRS-IM) has been discussed further and following agreements are reached by RAN4:

* From the RAN4 perspective, a new network assistance signalling is agreed to be defined for CRS-IM. Its details are as follows:
* It will be common across all neighbour cells and will only contain 1 bit.
* It is optional network assistance signalling.
* When it is set to 1, network either does not know whether default network configuration assumptions (as provided in LSs R4-2207238 and R4-2210435) are true or network knows that default network configuration assumptions are not true. Based on this, UE may either disable CRS-IM or apply enhanced processing such that at least the performance without applying any mitigation is maintained.
* When it is set to 0, network knows that default network configuration assumptions are true. Based on this, UE will apply CRS-IM based on default network configuration assumptions.
* Default value for such network assistance signalling will be 0.
* Regarding the content of Rel-17 network assistance signalling in *LTE-NeighCellsCRS-AssistInfoList-r17*, RAN4 has agreed on following interpretation by the UE:
  + If any network assistance signalling (except vshift) in *LTE-NeighCellsCRS-AssistInfoList-r17* is provided by the network:
    - If only single instance of *LTE-NeighCellsCRS-AssistInfo-r17* is provided without cell ID, the provided network assistance information is applicable to all neighbouring cells.
    - If multiple instances of *LTE-NeighCellsCRS-AssistInfo-r17* are provided, cell ID should be included in each instance. If cell ID is not included in any instance, UE is not expected to make use of the network assistance signalling provided in that instance.

**2. To RAN WG2 group.**

**ACTION:** RAN4 respectfully request RAN2 to take the above information into account and make changes to the corresponding network assistance signalling for CRS-IM in scenario with overlapping spectrum for LTE and NR.

**3. Date of Next TSG-RAN WG4 Meetings:**

TSG-RAN WG4 Meeting #104-bis-e 10 Oct - 19 Oct 2022 Online

TSG-RAN WG4 Meeting #105 14 Nov - 18 Nov 2022 Canada