**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 according to the following:
* Optional indication on default network assumption validity, common across all neighbour cells.
* When the indication is provided, the UE default network configuration assumptions (as provided in LSs R4-2207238 and R4-2210435) are not applicable. Based on this, it is up to UE implementation whether to disable CRS-IM or apply enhanced processing such that at least the performance without applying any mitigation is maintained.
* When the indication is not provided (which is the current default assumption), the default network configuration assumptions are true and UE shall apply CRS-IM based on the default assumptions.
* Regarding the content of Rel-17 network assistance signalling in *LTE-NeighCellsCRS-AssistInfoList-r17*, RAN4 has agreed on following interpretation by the UE:
  + If single entry of network assistance signalling is provided by the network:
    - If an entry without cell ID or v-Shift is provided, it is applicable to all neighbouring cells.
    - If an entry with v-Shift information is provided, it is applicable to all neighbouring cells with that v-Shift.
    - If an entry with cell ID information is provided, it is applicable only to neighbouring cell(s) with that cell ID.
  + If multiple entries of network assistance information are provided:
    - Assistance information from an entry with PCI overrides assistance information from an entry without PCI (i.e. entries with only v-Shift or no v-Shift or PCI)
    - Assistance information from an entry with v-Shift overrides assistance information from an entry without v-Shift (i.e. entries with no v-Shift or PCI)
  + Note: It is up to UE decision whether or not to take network assistance signalling entries without cell ID or v-Shift into account for the CRS-IM processing.

**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 EU