**3GPP TSG-RAN WG4 Meeting #104-e R4-2214355**

**E-Meeting, 15 Aug. 2022 – 26 Aug. 2022**

**Title:** LS on Feature Group 6-1a “bwp-WithoutRestriction”

**Response to:** R2-2204009

**Release:** None

**Work Item:** None

**Source:** RAN WG4

**To:** RAN WG1, RAN WG2s

**Cc:**

**Contact Person:**

#### **Name:** CH Park

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**Attachments:** None

**1. Overall description:**

RAN4 would like to thank RAN1 for the LS on BWP operation without bandwidth restriction. RAN4 has discussed the questions asked in the LS, and would like to provide the answers and share the current status of the discussion in RAN4.

**Question 1:**

Whether it is a valid scenario in the standard to support the operation of BWP without SSB where the UE does not perform BM/RLM/BFD due to the lack of necessary reference signal (SSB and CSI-RS) in the active BWP.

**Answer:**

From the existing RAN4 specification point of view, it is not a valid scenario.

**Question 2:**

If the answer to question 1 is that this is not valid, how should the UE perform BM/RLM/BFD when the active BWP does not contain SSB.

**Answer:**

RAN4 has examined the pre-Rel-17 RAN4 specs. The following possible solutions for the issue are identified.

* Perform BM/RLM/BFD based on CSI-RS within active DL BWP
  + RAN4 has corresponding requirements
* Perform BM/RLM/BFD based on SSB outside active DL BWP
  + If the UE signals that it is capable to operate using a larger BW or utilizing a separate RF chain
    - RAN4 may introduce requirements for such a capability
  + If the operation needs a MG or NCSG, or cause interruptions
    - There is no placeholder as part of RAN4 work in Rel-17 since RAN4 requirements may or may not need to be developed to support the feature

**2. Actions:**

**To RAN4:**

RAN4 kindly ask RAN2 to take the above answers into consideration in the relevant work.

**3. Date of Next RAN1 Meetings:**

TSG RAN WG4 Meeting #104bis-e 10 – 19 October 2022 e-Meeting

TSG RAN WG4 Meeting #105-e 14 - 18 November 2022 e-Meeting