**3GPP TSG-RAN WG2 Meeting #113e R2-2XXXXXX**

**Electronic Meeting, 25th Jan – 5th Feb 2021**

**Title: [Draft]** LS Reply on LS on DC location reporting for intra-band UL CA

**Work Item:** NR\_RF\_FR1-Core

**Source:** [To be] RAN2

**To:** RAN WG4

**Cc:** RAN WG1

**Contact Person:**

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**Attachments:**

1. **Overall Description:**

RAN2 thanks RAN4 for the details on their discussion on how to handle TX DC location for intra band UL CA. RAN2 further discussed the signaling details on this topics based on the LS R4-2016817 and reached the agreements noted below.

Furthermore, RAN2 would like to inform RAN4 that RAN2 has not considered signaling support for SUL assuming that SUL is not needed in the case of intra-band UL CA for which the Tx DC locations are reported. RAN2 requests RAN4 to inform RAN2 if the RAN2 assumption is not valid.

RAN2 agreements on this topic:

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| * The UE provides the Rel-16 RRC based Tx DC Location reporting as a response to a request from the NW using new Rel-16 RRC IE. Upto the NW on how Rel-15 and Rel-16 TX DC location requests are to be used (and combined)
* The Rel-16 RRC based Tx DC Location reporting can be requested by the network in RRCReconfiguration or in RRCResume (same cases as Rel-15)
* For Rel-16 RRC based signalling of Tx DC location reporting, RAN2 will focus on designing for the 2CC UL CA case with the intention that ASN.1 extension can be used for >2CC in the future.
* Assume that Network providing BWP pairs is not needed when focus on 2CC (not completely off the table)
* UE explicitly signals the two sets of {Serving Cell ID + BWP ID} for DC location info which also covers the cases where the SCell is deactivated.
* the case of ‘SCell configured but not activated’ is a valid case for explicit signalling.
* For the gNB to understand the DC location info, UE explicitly provides the serving cell (PCell or SCell) as reference point that is to be used by gNB for interpreting DC location info. The SCS is taken from the BWP of the provided serving cell.
* SUL is NOT considered in the design of Rel-16 DC location report signalling. Inform RAN4 about this.
* The maximum number of DC locations the UE can report using Rel-16 DC location signalling is 64.
* A new per-BC capability supporting the Rel-16 DC location reporting will be added and this addresses the RAN4 FG 7-5.
* The new release-16 single PA signalling framework can include dual PA signalling where the DC location for the second PA is reported along with Serving cell + BWP ID
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**2. To RAN WG4 group.**

**ACTION:** RAN2 requests RAN4 to take the above responses into consideration and to inform RAN2 is the assumption on SUL in incorrect.

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

TSG RAN WG2 Meeting #113-bis-e Apr 12 – 20 , 2021 Online

TSG RAN WG2 Meeting #114-e May 19– 27 , 2021 Online