**3GPP TSG-RAN WG2 Meeting #129 R2-250xxxx**

**Athens, Greece, 17 – 21 of February 2025**

**Title: [DRAFT] Reply LS on QMC Coordination for RRC Segmentation in NR-DC**

**Response to:** **R2-2500022/R3-247888**

**Release: Release 18**

**Work Item: NR\_QoE-Core**

**Source: ZTE Corporation, Sanechips [TSG RAN WG2]**

**To: TSG RAN WG3**

**Cc:**

**Contact Person:**

#### Name: Zhihong Qiu

E-mail Address: qiu.zhihong@zte.com.cn

**Send any reply LS to: 3GPP Liaisons Coordinator,** **mailto:3GPPLiaison@etsi.org**

**Attachments:** -

**1. Overall Description:**

RAN2 thanks RAN3 for the LS. After discussion, below are RAN2 responses to Questions 1-4:

* **Question 1:** Can the UE receive an *AppLayerMeasConfig-r17* IE for MCG configuration containing *rrc-SegAllowedSRB5-r18* parameter?
* **Question 2:** Can the UE receive an *AppLayerMeasConfig-r17* IE for SCG configuration containing *rrc-SegAllowedSRB4-r17* parameter?

**RAN2 response to Q1/Q2:** It is specified in the field description, that *rrc-SegAllowedSRB4-r17* is only configured for an MCG and *rrc-SegAllowedSRB5-r18* is only configured for an SCG. Based on it, there are two different understandings in RAN2:

* Understanding 1: *rrc-SegAllowedSRB4-r17* is only used for an MCG, and *rrc-SegAllowedSRB5-r18* is only used for SCG. But there is no restriction that MN should not include *rrc-SegAllowedSRB5-r18* in *AppLayerMeasConfig-r17* or SN should not include *rrc-SegAllowedSRB4-r18* in *AppLayerMeasConfig-r17*. In order words, UE can receive both *rrc-SegAllowedSRB4-r18* and *rrc-SegAllowedSRB5-r18* in a common *AppLayerMeasConfig-r17* from any node.
* Understanding 2: *rrc-SegAllowedSRB4-r17* is only configured in an MCG configuration “by” MN and *rrc-SegAllowedSRB5-r18* is only configured in an SCG configuration “by” SN.

Both understandings may require updates in field descriptions of *rrc-SegAllowedSRB4-r17* and *rrc-SegAllowedSRB5-r18* to avoid ambiguity.

* **Question 3:** If the UE receives from the MN the *AppLayerMeasConfig-r17* IE which does not include the *rrc-SegAllowedSRB5-r18* parameter, how does the UE treat its RRC segmentation state for SRB5 after receiving this *AppLayerMeasConfig-r17* parameter? Does the UE keep its previous RRC segmentation state for SRB5 or does the UE consider that the RRC segmentation function for SRB5 shall be disabled?
* **Question 4:** If the UE receives from the SN the *AppLayerMeasConfig-r17* parameter which does not include the *rrc-SegAllowedSRB4-r17* parameter, how does the UE treat its RRC segmentation state for SRB4 after receiving this *AppLayerMeasConfig-r17* parameter? Does the UE keep its previous RRC segmentation state for SRB4 or does the UE consider that the RRC segmentation function for SRB4 shall be disabled?

**RAN2 response to Q3/4:** According to current ASN.1 design, *rrc-SegAllowedSRB4-r17* and *rrc-SegAllowedSRB5-r18* are optional fields with need code Need R*.* Based on it, there are two different understandings of UE behaviors in RAN2:

* Understanding 1: If the UE receives from the MN the *AppLayerMeasConfig-r17* IE which does not include the *rrc-SegAllowedSRB5-r18* parameter, UE considers the RRC segmentation function for SRB5 is disabled. If the UE receives from the SN the *AppLayerMeasConfig-r17* parameter which does not include the *rrc-SegAllowedSRB4-r17* parameter, UE considers the RRC segmentation function for SRB4 is disabled. This can work with any RAN2 understanding for Q1/Q2.
* Understanding 2: As *rrc-SegAllowedSRB4-r17* cannot be included in a SCG configuration by SN (i.e., understanding 2 in Q1/Q2), the absence of the field in an SCG configuration means no action for the UE. Similarly, as *rrc-SegAllowedSRB5-r18* cannot be included in a MCG configuration by MN (i.e., understanding 2 in Q1/Q2), the absence of the field in an MCG configuration means no action for the UE. This can work only based on understanding 2 in Q1/Q2.

Understanding 1 doesn’t require RAN2 specification update. Understanding 2 requires RAN2 specification updates in the field descriptions and the need codes of *rrc-SegAllowedSRB4-r17* and *rrc-SegAllowedSRB5-r18*, which is NBC for the frozen Rel-18).

RAN2 has discussed whether to change the current design on signaling *rrc-SegAllowedSRB4-r17* and *rrc-SegAllowedSRB5-r18* and it was not agreed as it would lead to non-backward compatible changes in RAN2 specifications. Therefore RAN2 reached below agreement:

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| * We do not correct this in RAN2 and let RAN3 make corrections
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**2. Actions:**

**To RAN WG3.**

**ACTION:** RAN2 respectfully asks RAN3 to take the aforementioned RAN2 decisions into account in their future work,.

**3. Date of Next TSG-RAN WG2 Meetings:**

RAN2#129-bis from 2025-04-07 to 2025-04-11 China, CN

RAN2#130 from 2025-05-19 to 2025-05-23 Malta, MT