**3GPP TSG-RAN WG2 Meeting #127 R2-24xxxxx**

**Hefei, China, October 14th – 18th, 2024**

**Title:** LS on UL RRC message segmentation for *UECapabilityInformation*

**Response to:**

**Release:** Rel-17

**Work Item:** TEI17

**Source:** Qualcomm Incorporated [To be RAN2]

**To:** RAN3

**Cc:**

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**Attachments:** None

**1. Overall Description:**

RAN2 standard currently supports UL RRC message segmentation for transferring *UECapabilityInformation* message. Each segment can be as large as the maximum PDCP SDU size and the RRC signalling supports up to 16 segments.

RAN2 however came to the understanding that the existing network implementations do not always support the maximum number of RRC segments. RAN2 therefore agreed to introduce a new RRC signalling solution where the gNB indicates the maximum number of UL segments the UE is allowed to use, in *UECapabilityEnquiry* message. The UE then is required to generate *UECapabilityInformation* ensuring the size of the message does not exceed the maximum allowed size according to the gNB indication.

It was pointed out in the RAN2 discussion that the network limitation mentioned above can reside in RAN or CN (given that the reported UE capability needs to be stored in RAN and CN). In the case that it is CN’s limitation, RAN2 believes that signalling from CN to gNB is necessary so that gNB can indicate the correct value in *UECapabilityEnquiry* message.

RAN2 therefore would like to ask RAN3 to define a signalling solution where CN informs RAN about the maximum UE capability size that CN can accommodate.

**2. Actions:**

**To RAN1 group.**

**ACTION:** RAN2 asks RAN3 to take the above information into account and to define a signalling solution where CN informs RAN about the maximum UE capability size that CN can accommodate.

**3. Date of Next TSG-RAN2 Meetings:**

3GPP TSG RAN WG2#128 18 - 22 November 2024 Orlando, US

3GPP TSG RAN WG2#129 17 - 21 February 2025 Athens, GR