**3GPP TSG RAN WG4 Meeting #104-bis-e R4-22xxxxx**

**Electronic Meeting, October 10th – 19th, 2022**

**Title:** LS on the feasibility of testing UE initiated SDT data transmission in RRC\_INACTIVE

**Response to:**

**Release:** Rel-17

**Work Item:** NR\_SmallData\_INACTIVE-Perf

**Source:** RAN WG4

**To:** RAN WG5

**Cc:**

**Contact Person:**

#### Name: Rafael Paiva

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**Attachments:**

**1. Overall Description:**

During the RAN4#104bis meeting, RAN4 has made agreements regarding RRM test procedures for CG-SDT TA validation. As part of these agreements, it has been identified that there is a need for multiple CG-SDT procedures following each other during a test.

With the current RAN4 understanding of test mode B from 38.509, that would have to be implemented as outlined in Figure 1.



Figure 1: Test procedure for multiple CG-SDT procedures – current understanding.

Since re-entering RRC connected mode could increase testing time, it would be a clear benefit if the test would not have to re-enter connected mode multiple time during a test, such that the test could be implemented as outlined in Figure 2. In this figure at least 2 SDT transmissions can be triggered by the test equipment with control of the transmission time using a single test mode command. Options for this test command could include configuring periodic triggering of SDT messages.



Figure 2: Test procedure for multiple CG-SDT procedures - without entering connected mode between CG-SDT procedures.

The options in Figure 1 and Figure 2 were identified as potential candidates for the testing of SDT, however RAN4 tends to prefer the option in Figure 2, since it results in reduced testing time.

**2. Actions:**

**To: RAN WG5**

**ACTION:** RAN4 kindly asks RAN5 to provide feedback on whether a test mode can trigger 2 or more CG-SDT transmissions in RRC inactive with independently controlled timing without need for going to RRC connected in between transmissions.

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

TSG-RAN4 Meeting #105 11 – 18 Nov 2022, Toulouse, FR

TSG-RAN4 Meeting #106e 27 Feb – 03 March Oct 2023, Athens, GR