**3GPP TSG-SA3 Meeting #104-e *S3-212724***

**e-meeting, 16 – 27 August 2021**

**Title: [Draft]** **Reply LS on Small data transmissions**

**Response to: LS (S3-212428/R2-2104401) on Small data transmissions**

**Release: Rel-17**

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

**Source: SA3**

**To:** **RAN2**

**Cc: SA2**

**Contact person: Wei Zhou**

 **zhouwei@catt.cn**

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

**Attachments:** none

# 1 Overall description

SA3 would like to thank RAN2 for their LS on Small data transmission.

RAN2 asked the following questions:

Q1: Can a CCCH message reusing the I-RNTI and resumeMAC-I be transmitted again in the same cell after SDT initiation, e.g., similar to legacy RRC Reject case (but without having received RRC Reject at the UE)?.

Q2: Can NCC and I-RNTI from a former cell in which an SDT procedure was initiated be reused to initiate a new SDT procedure in a new cell?

SA3 would like to acknowledge a potential security issues related to reusing the same I-RNTI and NCC with the same cell scenario or mobility scenarios as cell reselection occur in case the same resumeMAC-I are calculated.

Furthermore, for both cases (same cell and different cell), SA3 would like to provide the following feedback.

SA3 would like to point out that to avoid replay attacks, resumeMAC-I should not be reused. The inputs for calculating resumeMAC-I include the following input parameters: KEY, PDCP COUNT, MESSAGE, DIRECTION, and BEARER. Any change in an input parameter will avoid resumeMAC-I reuse.

SA3 asks RAN2 to verify that the above requirements are met.

# 2 Actions

**To RAN2, SA2**

**ACTION:** 3GPP TSG SA WG3 would like RAN2 and SA2 to take the above feedback into account.

# 3 Dates of next TSG SA WG3 meetings

SA3#105 08 – 12 November 2021 Sophia Antipolis, FR

SA3#106 07 – 11 February 2022 EU