3GPP TSG-RAN WG2 Meeting #126 R2-240xxxx

Fukuoka, Japan, 20 – 25 May 2024

**Title: Draft-**Reply LS on SDT signalling optimization for partial context transfer

**Response to:** R2-2404123 (R3-242198)

**Release:** Rel-18

**Work Item:** TEI18

**Source:** to be RAN2

**To:** RAN3

Cc:

**Contact person:**

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

Attachments: None

**1. Overall Description:**

RAN2 would like to thank RAN3 for the reply LS on SDT signalling optimization for partial context transfer in R2-2404123 (R3-242198).

With regards to the network-based solution discussed in RAN3; RAN2 has specified that network can send *RRCSetup* in response to *RRCResumeRequest* message since Rel-15 and the following is captured in the RRC spec:

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| The purpose of this procedure is to establish an RRC connection. RRC connection establishment involves SRB1 establishment. The procedure is also used to transfer the initial NAS dedicated information/ message from the UE to the network.The network applies the procedure e.g.as follows:- When establishing an RRC connection;- When UE is resuming or re-establishing an RRC connection, and the network is not able to retrieve or verify the UE context. In this case, UE receives *RRCSetup* and responds with *RRCSetupComplete* |

This text does not capture whether RRCSetup can be sent during an SDT session.

The following is captured in TS 38.300:

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| Once initiated, the SDT procedure is either:- successfully completed after the UE is directed to RRC\_IDLE (via *RRCRelease*) or to continue in RRC\_INACTIVE (via *RRCRelease or RRCReject*) or to RRC\_CONNECTED (via *RRCResume or RRCSetup*); |

This text does not imply that RRCSetup can be sent at any time during an SDT session.

RAN2 has further identified the following issues for the network-based solution:

**Issue 1: Data loss**

* If RRCSetup is received during SDT, the UE will discard any pending UL data but not reset MAC and set up a new RRC Connection. Thus, the pending UL data will be lost.

**Issue 2: Signalling due to security context and AS context release**

* If RRCSetup is received during SDT, the UE will discard the current INACTIVE AS context and AS security context which requires RRC establishment related signalling to establish AS context and AS security context again.

**2. Actions:**

**To RAN2 group.**

**ACTION:** RAN2 kindly asks RAN3 to take the above considerations into account.

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

TSG-RAN3 #127 Aug 19 to 23, 2024 Maastricht, NL

TSG-RAN3 #127-bis Oct 14 to 17, 2024 TBC, CN