**3GPP TSG-RAN WG3 Meeting #120 *R3-23xxxx***

**Incheon, KR, 22 May – 26 May, 2023**

**Title:** (TP to MT-SDT TS 38.401) consideration on MT-SDT

**Source:** Huawei, Qualcomm Incorporated

**Agenda item:** 20.2

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# Introduction

This paper provides the TP to TS 38.401 BL CR of MT-SDT WI, to capture the agreements made during RAN3#120 meeting.

# TP to TS 38.401

***-----------Start of the Change-----------------***

8.18.x MT-SDT

The procedure for mobile terminated small data transmission in RRC Inactive is shown in Figure 8.18.x-1.



**Figure 8.18.x-1: Mobile Terminated Small Data Transmission in RRC Inactive state.**

1a-0. The gNB-CU-UP receives DL data for the UE in RRC Inactive on NG-U interface.

1a-1. The gNB-CU-UP sends DL DATA NOTIFICATION message to the gNB-CU-CP. If supported, the gNB-CU-UP include the MT-SDT information in the DL DATA NOTIFICATION message based on determing that DL data packets are only mapped to SDT bearers.

NOTE: The gNB-CU-CP may request the gNB-CU-UP to provide such MT-SDT information before step 1a-0, via BEARER CONTEXT SETUP REQUEST message or BEARER CONTEXT MODIFICATION REQUEST message.

1b. The gNB-CU-CP receives DL signalling over NGAP.

2. After 1a or 1b, the gNB-CU-CP sends PAGING message to the gNB-DU. The MT-SDT information may be included in the PAGING message.

3. The gNB-DU sends the *Paging* message to the UE. In case the MT-SDT information is received in step 2, the gNB-DU includes the MT-SDT indicator in the *Paging* message.

4. If the UE has been successfully reached, it initiates the RRC connection resume procedure as described in 8.6.2 or 8.9.6.2, or initiates the SDT procedure as described in 8.18.1 or from step 9 in 8.18.2 or from step 1 in 8.18.3 with the following difference:

- in case SDT procedure is initiated, the UE may indicate the RRC Resume Request is for MT-SDT, which may be without UL data.

***------------End of the Change-----------------***