**3GPP TSG RAN WG2 #118-e R2-220xxxx**

**e-Meeting, 9-20 May, 2022**

**Title: [Draft] Reply LS on the L1 related agreements for SDT**

**Response to: R2-2204445 (R1-2202656)**

**Release: Rel-17**

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

**Source: [to be] RAN2**

**To: RAN1**

**Cc:**

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

# 1 Overall description

RAN2 thanks RAN1 for the Reply LS on physical layer aspects of small data transmission in R2-2204445 (R1-2202656).

RAN2 had a further discussion regarding SDT feature and the following agreements were made.

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| RAN2#116bis-e agreements  => If contention resolution fails during RA procedure (for both legacy RA and RA-SDT), the UE restores the NTA value used before RAR TAC is received |

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| RAN2#117e agreements  => For autonomous re-tx, fix the RV to be 0 for both the initial and retransmission of initial CG-SDT transmission. |

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| RAN2#118e agreements  => Do not support uci-onPUSCH for SDT  => During CG-SDT procedure, the UE does not need to (but is allowed to) select a CG resource corresponding to different SSB as used for the previous CG-SDT transmission if the previously selected SSB is above the cg-SDT-RSRP-ThresholdSSB threshold |

**For CG-SDT search space**

In addition to the above, RAN2 would like to inform RAN1 that the parameter named *sdt-CG-SearchSpace-r17* used in 3GPP TS 38.213 does not exist in the RAN2 signalling. Instead, RAN2 signalling uses the existing field names for the search space configuration. RAN2 kindly requests RAN1 to update the RAN1 specs to refer to the search space configured using the *BWP-Uplink-Dedicated-SDT-r17* for the above parameter hence, instead of using the new name *sdt-CG-SearchSpace-r17*.

**For SDT common search space**

For SDT common search space RAN2 discussed signalling of an existing search space ID. RAN2 has implemented the signalling using a choice structure between configuration of a SearchSpace and SearchSpaceId. Thus network can either configure an existing search space (using searchSpaceId) or configure a new search space (using searchSpace). RAN2 requests RAN1 to kindly confirm whether this is aligned with RAN1 understanding..

**For CG-SDT repetition**

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| Repetition  For CG-SDT, RAN1 cannot reach consensus on whether to support repetition or not, it’s up to RAN2 to decide on it. |

With regards to the above issue about repetition for CG-SDT, the signalling in TS 38.331 reuses the existing *ConfiguredGrantConfig* and hence the signalling allows configuration of parameters related to repetition (i.e. *repK*, *repK-RV* (including *repK-r17*)*,* *pusch-RepTypeIndicator-r16* and *frequencyHoppingPUSCH-RepTypeB-r16*) within this IE.

# 2 Actions

**To RAN1**

**ACTIONs:**

1. RAN2 respectfully asks RAN1 to take the above information into account for their specification work and provide feedback, if any, on the above agreements
2. RAN2 respectfully asks RAN1 to confirm whether the configuration of SDT common search space as a choice between an existing search space or a new search space as noted above is aligned with RAN1 understanding.

# 3 Dates of next TSG RAN2 meeting

The dates of the next RAN2 meetings can be found at the following link:

<https://portal.3gpp.org/Home.aspx?tbid=380&SubTB=380#/>