**3GPP TSG-RAN WG2 Meeting #121bis-eR2-230xxxx**

**eMeeting, April 17th – April 26th, 2023**

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
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|  | **38.321** | **CR** | **1576** | **rev** | **1** | **Current version:** | **17.4.0** |  |
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| *For* [***HELP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* |
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| ***Proposed change affects:*** | UICC apps |  | ME | **x** | Radio Access Network |  | Core Network |  |

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| ***Title:***  | Clarification on RA Resource Selection During CG-SDT |
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| ***Source to WG:*** | vivo, ZTE Corporation (rapporteur), Sanechips |
| ***Source to TSG:*** | R2 |
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| ***Work item code:*** | NR\_SmallData\_INACTIVE-Core |  | ***Date:*** | 2023-04-24 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***Release:*** | Rel-17 |
|  | *Use one of the following categories:****F*** *(correction)****A*** *(mirror corresponding to a change in an earlier release)****B*** *(addition of feature),* ***C*** *(functional modification of feature)****D*** *(editorial modification)*Detailed explanations of the above categories canbe found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | *Use one of the following releases:Rel-8 (Release 8)Rel-9 (Release 9)Rel-10 (Release 10)Rel-11 (Release 11)…Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
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| ***Reason for change:*** | According to the current MAC, during the subsequent transmission of the ongoing CG-SDT procedure, if none of the SSB is above the RSRP threshold for CG-SDT SSB selection and there is data available for transmission for at least one RB configured for SDT, the UE will trigger the RA procedure. However, it is not clear whether that RA procedure is triggered for SDT or not as per the MAC text. Consequently, it is not clear whether the RA-SDT resource can be used during the subsequent transmission of the ongoing CG-SDT procedure. (i.e. the agreement that *UE triggers legacy SR/RACH when there is UL data available when none of the SSB is above the RSRP threshold for CG-SDT SSB selection* is not captured in the current MAC spec). So we propose this CR for clarification.--------------------------------<TS 38.321 sub clause 5.8.2>-----------------------------For an uplink grant configured for configured grant Type 1 for CG-SDT on the selected uplink carrier as in clause 5.27, when CG-SDT is triggered and not terminated, for each configured uplink grant valid according to TS 38.214 [7] for which the above formula is satisfied, the MAC entity shall:1> if, after initial transmission for CG-SDT with CCCH message has been performed according to clause 5.4.1, PDCCH addressed to the MAC entity's C-RNTI has not been received:……1> else:2> consider this configured uplink grant as not valid.2> if PDCCH addressed to C-RNTI after the initial transmission of the CG-SDT with CCCH message has been received:3> if there is data available for transmission for at least one RB configured for SDT:4> initiate Random Access procedure in clause 5.1. |
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| ***Summary of change:*** | Clarify that the set of Random Access resources configured with *smallData* set to *true* is considered as not available for the Random Access procedure which is not triggered for RA-SDT.**Impact analysis**Impacted 5G architecture options: NR standaloneImpacted functionality: RA procedureInter-operability: There is no inter-operability issue foreseen.  |
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| ***Consequences if not approved:*** | Whether RA-SDT resources can be used during the ongoing CG-SDT procedure is not fully clear. |
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| ***Clauses affected:*** | 5.1.1c |
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|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** |  | **X** |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  | **X** |  O&M Specifications | TS/TR ... CR ...  |
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| ***Other comments:*** |  |
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| ***This CR's revision history:*** |  |

**START OF THE CHANGE**

### 5.1.1c Availability of the set of Random Access resources

The MAC entity shall for each set of configured Random Access resources for 4-step RA type and for each set of configured Random Access resources for 2-step RA type:

1> if *redCap* is set to *true* for a set of Random Access resources:

2> consider the set of Random Access resources as not available for a Random Access procedure for which RedCap is not applicable.

1> if *smallData* is set to *true* for a set of Random Access resources:

2> consider the set of Random Access resources as not available for the Random Access procedure which is not triggered for RA-SDT.

1> if *NSAG-List* is configured for a set of Random Access resources:

2> consider the set of Random Access resources as not available for the Random Access procedure unless it is triggered for any one of the *NSAG-ID*(s) in the *NSAG-List*.

1> if *msg3-Repetitions* is set to *true* for a set of Random Access resources:

2> consider the set of Random Access resources as not available for the Random Access procedure if Msg3 repetition is not applicable.

1> if a set of Random Access resources is not configured with *FeatureCombination*:

2> consider the set of Random Access resources to not associated with any feature.

**END OF THE CHANGE**