**3GPP TSG-RAN WG2 Meeting #117-electronicR2-220xxxx**

**Online, February 21st - March 3rd, 2022**

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
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|  | **38.331** | **CR** | **2888** | **rev** | **1** | **Current version:** | **16.7.0** |  |
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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 | **x** | Core Network |  |

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| ***Title:***  | Correction on UL skipping with LCH Prioritization in Rel-16 |
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| ***Source to WG:*** | vivo |
| ***Source to TSG:*** | R2 |
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| ***Work item code:*** | NR\_IIOT-Core, NR\_L1enh\_URLLC-Core |  | ***Date:*** | 2022-02-14 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***Release:*** | Rel-16 |
|  | *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:*** | In the LS R1-2112862, it is indicated that when *lch-basedPrioritization* is configured, Rel-16 UL skipping cannot be enabled in Rel-16. RAN1 expects RAN2 to capture above configuration restriction in TS 38.331.Therefore, configuration restriction in the way *lch-basedPrioritization* and Rel-16 UL skipping cannot be simultaneously enabled by the network is needed.  |
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| ***Summary of change:*** | In section 6.3.2, clarify that the network does not configure *lch-BasedPrioritization* with *enhancedSkipUplinkTxDynamic* simultaneously nor *lch-BasedPrioritization* with *enhancedSkipUplinkTxConfigured* simultaneously. **Impact analysis**Impacted 5G architecture options: Standalone and Non-StandaloneImpacted functionality: Allocation of resourcesInter-operability: 1. If the UE is implemented according to this CR but the network is not, the UE may not transmit the PUSCH with UCI multiplexed if there is an overlapping between this PUSCH and another PUSCH with data of higher priority, when *lch-basedPrioritization* is enabled.
2. If the network is implemented according to this CR but the UE is not, there is no inter-operability issue foreseen.
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| ***Consequences if not approved:*** | The UE has difficulty in transmitting the PUSCH with UCI multiplexed if there is an overlapping between this PUSCH and another PUSCH with data of higher priority, when *lch-basedPrioritization* is enabled. |
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| ***Clauses affected:*** | 6.3.2 |
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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**

#### – *MAC-CellGroupConfig*

The IE *MAC-CellGroupConfig* is used to configure MAC parameters for a cell group, including DRX.

*MAC-CellGroupConfig* information element

-- ASN1START

-- TAG-MAC-CELLGROUPCONFIG-START

MAC-CellGroupConfig ::= SEQUENCE {

 drx-Config SetupRelease { DRX-Config } OPTIONAL, -- Need M

 schedulingRequestConfig SchedulingRequestConfig OPTIONAL, -- Need M

 bsr-Config BSR-Config OPTIONAL, -- Need M

 tag-Config TAG-Config OPTIONAL, -- Need M

 phr-Config SetupRelease { PHR-Config } OPTIONAL, -- Need M

 skipUplinkTxDynamic BOOLEAN,

 ...,

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 csi-Mask BOOLEAN OPTIONAL, -- Need M

 dataInactivityTimer SetupRelease { DataInactivityTimer } OPTIONAL -- Cond MCG-Only

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 [[

 usePreBSR-r16 ENUMERATED {true} OPTIONAL, -- Need R

 schedulingRequestID-LBT-SCell-r16 SchedulingRequestId OPTIONAL, -- Need R

 lch-BasedPrioritization-r16 ENUMERATED {enabled} OPTIONAL, -- Need R

 schedulingRequestID-BFR-SCell-r16 SchedulingRequestId OPTIONAL, -- Need R

 drx-ConfigSecondaryGroup-r16 SetupRelease { DRX-ConfigSecondaryGroup } OPTIONAL -- Need M

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 enhancedSkipUplinkTxDynamic-r16 ENUMERATED {true} OPTIONAL, -- Need R

 enhancedSkipUplinkTxConfigured-r16 ENUMERATED {true} OPTIONAL -- Need R

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}

DataInactivityTimer ::= ENUMERATED {s1, s2, s3, s5, s7, s10, s15, s20, s40, s50, s60, s80, s100, s120, s150, s180}

-- TAG-MAC-CELLGROUPCONFIG-STOP

-- ASN1STOP

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| *MAC-CellGroupConfig* field descriptions |
| ***usePreBSR***If set to true, the MAC entity of the IAB-MT may use the Pre-emptive BSR, see TS 38.321 [3]. |
| ***csi-Mask***If set to true, the UE limits CSI reports to the on-duration period of the DRX cycle, see TS 38.321 [3]. |
| ***dataInactivityTimer***Releases the RRC connection upon data inactivity as specified in clause 5.3.8.5 and in TS 38.321 [3]. Value *s1* corresponds to 1 second, value s2 corresponds to 2 seconds, and so on. |
| ***drx-Config***Used to configure DRX as specified in TS 38.321 [3]. |
| ***drx-ConfigSecondaryGroup***Used to configure DRX related parameters for the second DRX group as specified in TS 38.321 [3]. The network does not configure secondary DRX group with DCP simultaneously nor secondary DRX group with a dormant BWP simultaneously. |
| ***lch-BasedPrioritization***If this field is present, the corresponding MAC entity of the UE is configured with prioritization between overlapping grants and between scheduling request and overlapping grants based on LCH priority, see TS 38.321 [3]. The network does not configure *lch-BasedPrioritization* with *enhancedSkipUplinkTxDynamic* simultaneously nor *lch-BasedPrioritization* with *enhancedSkipUplinkTxConfigured* simultaneously. |
| ***schedulingRequestID-BFR-SCell***Indicates the scheduling request configuration applicable for BFR on SCell, as specified in TS 38.321 [3]. |
| ***schedulingRequestID-LBT-SCell***Indicates the scheduling request configuration applicable for consistent uplink LBT recovery on SCell, as specified in TS 38.321 [3]. |
| ***skipUplinkTxDynamic, enhancedSkipUplinkTxDynamic, enhancedSkipUplinkTxConfigured***If set to *true*, the UE skips UL transmissions as described in TS 38.321 [3]. If the UE is configured with *enhancedSkipUplinkTxDynamic* or *enhancedSkipUplinkTxConfigured* with value *true*, REPETITION\_NUMBER (as specified in TS 38.321 [3], clause 5.4.2.1) of the corresponding PUSCH transmission of the uplink grant shall be equal to 1. |
| ***tag-Config***The field is used to configure parameters for a time-alignment group. The field is not present if any DAPS bearer is configured. |

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| Conditional Presence | Explanation |
| *MCG-Only* | This field is optionally present, Need M, for the *MAC-CellGroupConfig* of the MCG. It is absent otherwise. |

**END OF THE CHANGE**