**3GPP TSG-<TSG/WG> Meeting # <MTG\_SEQ**>**<MTG\_TITLE> *<TDoc#>***

 **<Location>, <Country>, <Start\_Date> - <End\_Date>**

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| --- |
| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **38.331** | **CR** | **<CR#>** | **rev** | **<Rev#>** | **Current version:** | **<Version#>** |  |
|  |
| *For* [***HE******LP***](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 *sl-MaxTransNum* configurable value |
|  |  |
| ***Source to WG:*** | OPPO |
| ***Source to TSG:*** | RAN2 |
|  |  |
| ***Work item code:*** | 5G\_V2X\_NRSL-Core  |  | ***Date:*** | 2021-03-18 |
|  |  |  |  |  |
| ***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-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
|  |  |
| ***Reason for change:*** | According to the agreement from RAN2#113RAN2 confirms sl-CG-MaxTransNumList covers {only CG resources}.Any one left issue is how to select between the two options belowHow to handle DG for retransmissions needs to be further discussed: Option 1: No change of the current specification. gNB can schedule DG resources for retransmissions with the appropriate configuration (e.g. set sl-CG-MaxTransNumList as larger value than 3, or not configure sl-CG-MaxTransNumList).Option 2: UE does not flush the buffer when sl-CG-MaxTransNumList is reached. Based on post meeting email discussion in [POST113-e][708], it is proposed that*Proposal 2 RAN2 discuss to further clarify in the field description that UE does not expect a configuration of sl-MaxTransNum larger than the number of CG resources.* |
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| ***Summary of change:*** | In 6.3.5, clarify that the value of *sl-MaxTransNum* is not expected to be larger than the number of CG resources.**Impact analysis****Impacted functionality**CG maximum transmission number for NR SL communication**Inter-operability:** If the network implements the change but not the UE, there is no inter-operability issue.If the UE implements the change but not the network, the problem remains, i.e., the UE behavior when the *sl-MaxTransNum* is configured with a value larger than the CG resources is not specified. If one UE implements the change but not the other UE, there is no inter-operability. |
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| ***Consequences if not approved:*** | It is not clear whether the UE is allowed to be configured with *sl-MaxTransNum* using a value larger than the CG resources, and how should the UE behave in such case. |
|  |  |
| ***Clauses affected:*** | 6.3.5 |
|  |  |
|  | **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 ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

*Start Change*

– *SL-ConfiguredGrantConfig*

The IE *SL-ConfiguredGrantConfig* specifies the configured grant configuration information for NR sidelink communication.

***SL-ConfiguredGrantConfig* information element**

-- ASN1START

-- TAG-SL-CONFIGUREDGRANTCONFIG-START

SL-ConfiguredGrantConfig-r16 ::= SEQUENCE {

 sl-ConfigIndexCG-r16 SL-ConfigIndexCG-r16,

 sl-PeriodCG-r16 SL-PeriodCG-r16 OPTIONAL, -- Need M

 sl-NrOfHARQ-Processes-r16 INTEGER (1..16) OPTIONAL, -- Need M

 sl-HARQ-ProcID-offset-r16 INTEGER (1..16) OPTIONAL, -- Need M

 sl-CG-MaxTransNumList-r16 SL-CG-MaxTransNumList-r16 OPTIONAL, -- Need M

 rrc-ConfiguredSidelinkGrant-r16 SEQUENCE {

 sl-TimeResourceCG-Type1-r16 INTEGER (0..496) OPTIONAL, -- Need M

 sl-StartSubchannelCG-Type1-r16 INTEGER (0..26) OPTIONAL, -- Need M

 sl-FreqResourceCG-Type1-r16 INTEGER (0..6929) OPTIONAL, -- Need M

 sl-TimeOffsetCG-Type1-r16 INTEGER (0..7999) OPTIONAL, -- Need R

 sl-N1PUCCH-AN-r16 PUCCH-ResourceId OPTIONAL, -- Need M

 sl-PSFCH-ToPUCCH-CG-Type1-r16 INTEGER (0..15) OPTIONAL, -- Need M

 sl-ResourcePoolID-r16 SL-ResourcePoolID-r16 OPTIONAL, -- Need M

 sl-TimeReferenceSFN-Type1-r16 ENUMERATED {sfn512} OPTIONAL -- Need S

 } OPTIONAL, -- Need M

 ...

}

SL-ConfigIndexCG-r16 ::= INTEGER (1..maxNrofCG-SL-r16)

SL-CG-MaxTransNumList-r16 ::= SEQUENCE (SIZE (1..8)) OF SL-CG-MaxTransNum-r16

SL-CG-MaxTransNum-r16 ::= SEQUENCE {

 sl-Priority-r16 INTEGER (1..8),

 sl-MaxTransNum-r16 INTEGER (1..32)

}

SL-PeriodCG-r16 ::= CHOICE{

 sl-PeriodCG1-r16 ENUMERATED {ms100, ms200, ms300, ms400, ms500, ms600, ms700, ms800, ms900, ms1000, spare6,

 spare5, spare4, spare3, spare2, spare1},

 sl-PeriodCG2-r16 INTEGER (1..99)

}

-- TAG-SL-CONFIGUREDGRANTCONFIG-STOP

-- ASN1STOP

| ***SL-ConfiguredGrantConfig* field descriptions** |
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| ***sl-ConfigIndexCG***This field indicates the ID to identify configured grant for sidelink. |
| ***sl-CG-MaxTransNumList***This field indicates the maximum number of times that a TB can be transmitted using the resources provided by the configured grant,i.e., for *sl-MaxTransNum-r16*, only the value equal to or less than the number of resources provided by configured grant is applicable. *sl-Priority* corresponds to the logical channel priority. |
| ***sl-FreqResourceCG-Type1***Indicates the frequency resource location of sidelink configured grant type 1. An index giving valid combinations of one or two starting sub-channel and length (joinly encoded) as resource indicator (RIV), as defined in TS 38.214 [19]. |
| ***sl-N1PUCCH-AN***This field indicates the HARQ resource for PUCCH for sidelink configured grant type 1. The actual PUCCH-Resource is configured in sl-PUCCH-Config and referred to by its ID. |
| ***sl-NrOfHARQ-Processes***This field indicates the number of HARQ processes configured for a specific configured grant. It applies for both Type 1 and Type 2. |
| ***sl-PeriodCG***This field indicates the period of sidelink configured grant in the unit of ms. |
| ***sl-PSFCH-ToPUCCH-CG-Type1***This field, for configured grant type 1, indicates slot offset between the PSFCH associated with the last PSSCH resource of each period and the PUCCH occasion used for reporting sidelink HARQ. |
| ***sl-ResourcePoolID***Indicates the resource pool in which the configured sidelink grant Type 1 is applied. |
| ***sl-StartSubchannelCG-Type1***This field indicates the starting sub-channel of sidelink configured grant Type 1. An index giving valid sub-channel index. |
| ***sl-TimeOffsetCG-Type1***This field indicates the time offset related to SFN= *sl-TimeReferenceSFN-Type1*, as specified in TS 38.321 [3]. |
| ***sl-TimeReferenceSFN-Type1***Indicates SFN used for determination of the offset of a resource in time domain. If it is present, the UE uses the closest SFN with the indicated number preceding the reception of the sidelink configured grant configuration Type 1, see TS 38.321 [3], clause 5.8.3. If it is not present, the reference SFN is 0. |
| ***sl-TimeResourceCG-Type1***This field indicates the time resource location of sidelink configured grant Type 1. An index giving valid combinations of up to two slot positions (jointly encoded) as time resource indicator (TRIV), as defined in TS 38.212 [17]. |

*Stop Change*