**3GPP TSG- Meeting #**

**E-Meeting, 17th - 28th Aug 2020**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.331** | **CR** | **xx** | **rev** | **x** | **Current version:** | **16.1.0** |  |
|  | | | | | | | | |
| *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:*** | Clarification on UL and SL priority thresholds | | | | | | | | | |
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| ***Source to WG:*** | vivo | | | | | | | | | |
| ***Source to TSG:*** | R2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5G\_V2X\_NRSL-Core | | | | |  | ***Date:*** | | | 2020-08-26 |
|  |  | | | |  | |  | | |  |
| ***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 can be 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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
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| ***Reason for change:*** | | For UL/SL prioritization, RAN2#111e meeting agreed the following recommendation.   * *Recommendation 2A: Agree on A3: In case the thresholds are not configured, the NR UL is always prioritized over LTE/NR SL TX.*   + *Agreed. There is no case where only UL threshold or SL threshold is configured.*   Based on the highlighted text, some clarification needs to be added in TS 38.331 to prevent the network from configuring only the UL threshold or SL threshold. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | In Section 6.3.4 update the field desription description of:   * *sl-PrioritizationThres* by adding “If this field is present, the field *ul-PrioritizationThres* shall be present.” * *ul-PrioritizationThres*by adding “If this field is present, the field *sl-PrioritizationThres* shall be present.”   **Impact analysis**  **Impacted functionality**  SL/UL prioritization  **Inter-operability:**  If the network implements the changes but the UE does not, there is no inter-operablity issues.  If the UE implements the changes but not the network does not, the UE may receive only the UL threshold or SL threshold and cannot perform corresponding UL/SL prioritization procedures.  If a UE implements the changes but the other UE does not, there is no inter-operablity issues. | | | | | | | | |
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| ***Consequences if not approved:*** | | NR V2X UL/SL priority thresholds configuration specification is ambiguous. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.3.4 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **y** |  | Other core specifications | | | | TS/TR 38.321 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 OF CHANGE*

#### *SL-ScheduledConfig*

The IE *SL-ScheduledConfig* specifies sidelink communication configurations used for network scheduled NR sidelink communication.

*SL-ScheduledConfig* information element

-- ASN1START

-- TAG-SL-SCHEDULEDCONFIG-START

SL-ScheduledConfig-r16 ::= SEQUENCE {

sl-RNTI-r16 RNTI-Value,

mac-MainConfigSL-r16 MAC-MainConfigSL-r16 OPTIONAL, -- Need M

sl-Timing-Config-r16 SL-TimingConfig-r16 OPTIONAL, -- Need M

sl-CS-RNTI-r16 RNTI-Value OPTIONAL, -- Need M

sl-PSFCH-ToPUCCH-r16 SEQUENCE (SIZE (1..8)) OF INTEGER (0..15) OPTIONAL, -- Need M

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

...

}

MAC-MainConfigSL-r16 ::= SEQUENCE {

sl-BSR-Config-r16 BSR-Config OPTIONAL, -- Need M

ul-PrioritizationThres-r16 INTEGER (1..16) OPTIONAL, -- Need M

sl-PrioritizationThres-r16 INTEGER (1..8) OPTIONAL, -- Need M

...

}

SL-TimingConfig-r16 ::= SEQUENCE {

sl-DCI-ToSL-Trans-r16 ENUMERATED{ffs} OPTIONAL, -- Need M

...

}

SL-ConfiguredGrantConfigList-r16 ::= SEQUENCE {

sl-ConfiguredGrantConfigToReleaseList-r16 SEQUENCE (SIZE (1..maxNrofCG-SL-r16)) OF SL-ConfigIndexCG-r16 OPTIONAL, -- Need N

sl-ConfiguredGrantConfigToAddModList-r16 SEQUENCE (SIZE (1..maxNrofCG-SL-r16)) OF SL-ConfiguredGrantConfig-r16 OPTIONAL -- Need N

}

-- TAG-SL-SCHEDULEDCONFIG-STOP

-- ASN1STOP

| *SL-ScheduledConfig* field descriptions |
| --- |
| ***sl-CS-RNTI***  Indicate the RNTI used to scramble CRC of DCI format 3\_0, see TS 38.321 [3]. |
| ***sl-MinMCS-PSSCH, sl-MaxMCS-PSSCH***  Indicate the MCS range for PSSCH transmission as specified in TS 38.214 [19, and apply to a sidelink grant as specified in TS 38.321 [3]]. If both *sl-MinMCS-PSSCH* and *sl-MaxMCS-PSSCH* are configured, UE autonomously selects the MCS from the configured values; If either *sl-MinMCS-PSSCH* or *sl-MaxMCS-PSSCH* is configured, UE uses the configured MCS value for PSSCH transmission; If neither *sl-MinMCS-PSSCH* nor *sl-MaxMCS-PSSCH* is configured, the selection of MCS is up to UE implementation. |
| ***sl-PSFCH-ToPUCCH***  For dynamic grant and configured grant type 2, configure the values of the PSFCH to PUCCH gap. The field PSFCH-to-HARQ\_feedback timing indicator in DCI format 3\_0 selects one of the configured values of the PSFCH to PUCCH gap. |
| ***sl-RNTI***  Indicate the C-RNTI used for monitoring the network scheduling to transmit NR sidelink communication (i.e. the mode 1). |

| *MAC-MainConfigSL* field descriptions |
| --- |
| ***sl-BSR-Config***  This field is to configure the sidelink buffer status report. |
| ***sl-PrioritizationThres***  Indicates the SL priority threshold, which is used to determine whether SL TX is prioritized over UL TX, as specified in TS 38.321 [3]. If this field is present, the field *ul-PrioritizationThres* shall be present. |
| ***ul-PrioritizationThres***  Indicates the UL priority threshold, which is used to determine whether SL TX is prioritized over UL TX, as specified in TS 38.321 [3]. If this field is present, the field *sl-PrioritizationThres* shall be present. |

| *SL-TimingConfig* field descriptions |
| --- |
| ***sl-DCI-ToSL-Trans***  Indicate the time gap between DCI reception and the first sidelink transmission scheduled by the DCI. |

* *SKIP UNCHANGED*

#### *SL-UE-SelectedConfig*

IE *SL-UE-SelectedConfig* specifies sidelink communication configurations used for UE autonomous resource selection.

*SL-UE-SelectedConfig* information element

-- ASN1START

-- TAG-SL-UE-SELECTEDCONFIG-START

SL-UE-SelectedConfig-r16 ::= SEQUENCE {

sl-PSSCH-TxConfigList-r16 SL-PSSCH-TxConfigList-r16 OPTIONAL, -- Need R

sl-ProbResourceKeep-r16 ENUMERATED {v0, v0dot2, v0dot4, v0dot6, v0dot8} OPTIONAL, -- Need R

sl-ReselectAfter-r16 ENUMERATED {n1, n2, n3, n4, n5, n6, n7, n8, n9} OPTIONAL, -- Need R

sl-CBR-CommonTxConfigList-r16 SL-CBR-CommonTxConfigList-r16 OPTIONAL, -- Need R

ul-PrioritizationThres-r16 INTEGER (1..16) OPTIONAL, -- Need R

sl-PrioritizationThres-r16 INTEGER (1..8) OPTIONAL, -- Need R

...

}

-- TAG-SL-UE-SELECTEDCONFIG-STOP

-- ASN1STOP

|  |
| --- |
| *SL-UE-SelectedConfig* field descriptions |
| ***sl-PrioritizationThres***  Indicates the SL priority threshold, which is used to determine whether SL TX is prioritized over UL TX, as specified in TS 38.321 [3]. If this field is present, the field *ul-PrioritizationThres* shall be present. |
| ***sl-ProbResourceKeep***  Indicates the probability with which the UE keeps the current resource when the resource reselection counter reaches zero for sensing based UE autonomous resource selection (see TS 38.321 [3]). |
| ***sl-PSSCH-TxConfigList***  Indicates PSSCH TX parameters [such as MCS, PRB number, retransmission number], associated to different UE absolute speeds [and different synchronization reference types] for UE autonomous resource selection. |
| ***sl-ReselectAfter***  Indicates the number of consecutive skipped transmissions before triggering resource reselection for sidelink communication (see TS 38.321 [3]). |
| ***ul-PrioritizationThres***  Indicates the UL priority threshold, which is used to determine whether SL TX is prioritized over UL TX, as specified in TS 38.321 [3]. If this field is present, the field *sl-PrioritizationThres* shall be present. |

*END OFt CHANGE*