**3GPP TSG-RAN2 Meeting # 110 electronic  *R2-20xxxxx***

**1 June - 12 June 2020**

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
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|  | **38.331** | **CR** |  | **rev** | **-** | **Current version:** | **16.0.0** |  |
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| *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:***  | Introduction of segementation for SIB12  |
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| ***Source to WG:*** | OPPO |
| ***Source to TSG:*** | RAN2 |
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| ***Work item code:*** | 5G\_V2X\_NRSL-Core |  | ***Date:*** | 2020-5-8 |
|  |  |  |  |  |
| ***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-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:*** | The size of SIB12 is too big to fit into a single SIB12 without segmentation  |
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| ***Summary of change:*** | 1. In 6.3.1, SIB12 structure is updated to support up to 64 segments
2. In 5.2.2.4.13, the reception and assemble of SIB12 segments is added
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| ***Consequences if not approved:*** | NR V2X controlled via SIB12 is not feasible  |
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| ***Clauses affected:*** | 5.2.2.4.13, 6.3.1 |
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|  | **Y** | **N** |  |  |
| ***Other specs*** | **y** |  |  Other core specifications  | TS 36.331 ... CR ...  |
| ***affected:*** |  |  |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  |  |  O&M Specifications | TS/TR ... CR ...  |
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| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

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| CHANGE START |

##### 5.2.2.4.13 Actions upon reception of *SIB12*

Upon receiving *SIB12*, the UE shall:

1> if the UE has stored at least one segment of *SIB12* and the value tag of *SIB12* has changed since a previous segment was stored:

2> discard all stored segments;

1> store the segment;

1> if all segments have been received:

2> assemble *SIB12-IEs* from the received segments;

2> if *SIB12* message includes *sl-FreqInfoList*:

3> if configured to receive NR sidelink communication:

4> use the resource pool indicated by *sl-RxPool* for NR sidelink communication reception, as specified in 5.8.7;

3> if configured to transmit NR sidelink communication:

4> use the resource pool indicated by *sl-TxPoolSelectedNormal*, or *sl-TxPoolExceptional* for NR sidelink communication transmission, as specified in 5.8.8;

4> perform CBR measurement on the transmission resource pool(s) indicated by *sl-TxPoolSelectedNormal* and *sl-TxPoolExceptional* for NR sidelink communication transmission, as specified in 5.5.3.1;

2> if *sl-RadioBearerConfigList* is included:

3> perform sidelink DRB addition/modification as specified in 5.8.9.1.5;

2> if *sl-MeasConfigCommon* is included:

3> store the NR sidelink measurement configuration.

The UE should discard any stored segements for *SIB12* if the complete *SIB12* has not been assembled within a period of 3 hours

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| NEXT CHANGE START |

#### – *SIB12*

SIB12 contains NR sidelink communication configuration.

*SIB12* information element

-- ASN1START

-- TAG-SIB12-START

SIB12-r16 ::= SEQUENCE {

segmentNumber-r16 INTEGER (0..63),

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

 segmentContainer-r16                OCTET STRING(containing SIB12-IEs-r16)

}

SIB12-IEs-r16 ::= SEQUENCE {

 sl-ConfigCommonNR-r16 SL-ConfigCommonNR-r16,

 lateNonCriticalExtension OCTET STRING OPTIONAL,

 …

}

SL-ConfigCommonNR-r16 ::= SEQUENCE {

 sl-FreqInfoList-r16 SEQUENCE (SIZE (1..maxNrofFreqSL-r16)) OF SL-FreqConfigCommon-r16 OPTIONAL, -- Need R

 sl-UE-SelectedConfig-r16 SL-UE-SelectedConfig-r16 OPTIONAL, -- Need R

 sl-NR-AnchorCarrierFreqList-r16 SL-NR-AnchorCarrierFreqList-r16 OPTIONAL, -- Need R

 sl-EUTRA-AnchorCarrierFreqList-r16 SL-EUTRA-AnchorCarrierFreqList-r16 OPTIONAL, -- Need R

 sl-RadioBearerConfigList-r16 SEQUENCE (SIZE (1..maxNrofSLRB-r16)) OF SL-RadioBearerConfig-r16 OPTIONAL, -- Need R

 sl-RLC-BearerConfigList-r16 SEQUENCE (SIZE (1..maxSL-LCID-r16)) OF SL-RLC-BearerConfig-r16 OPTIONAL, -- Need R

 sl-MeasConfigCommon-r16 SL-MeasConfigCommon-r16 OPTIONAL, -- Need R

 sl-CSI-Acquisition-r16 ENUMERATED {enabled} OPTIONAL, -- Need R

 sl-OffsetDFN-r16 INTEGER (0..1000) OPTIONAL, -- Need R

 t400 ENUMERATED {ms100, ms200, ms300, ms400, ms600, ms1000, ms1500, ms2000} OPTIONAL, -- Need R

 ...

}

SL-NR-AnchorCarrierFreqList-r16 ::= SEQUENCE (SIZE (1..maxFreqSL-NR-r16)) OF ARFCN-ValueNR

SL-EUTRA-AnchorCarrierFreqList-r16 ::= SEQUENCE (SIZE (1..maxFreqSL-EUTRA-r16)) OF ARFCN-ValueEUTRA

-- TAG-SIB12-STOP

-- ASN1STOP

| *SIB12* field descriptions |
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| ***segmentEndIndication*** This field indicates whether the included segment is the last segment or not. |
| ***segmentNumber***This field identifies the sequence number of a segment of *SIB12-IEs.* A segment number of zero corresponds to the first segment, A segment number of one corresponds to the second segment, and so on. |
| ***SegmentContainer***This field includes a segment of the encoded *SIB12-IEs*. The size of the included segment in this container should be less than the maximum size of a NR SI i.e. 2976 bits when SIB12 is broadcast. |
| ***sl-CSI-Acquisition***This field indicates whether CSI reporting is enabled in sidelink unicast. If not set, SL CSI reporting is disabled. |
| ***sl-EUTRA-AnchorCarrierFreqList***This field indicates the EUTRA anchor carrier frequency list, which can provide the NR sidelink communication configurations. |
| ***sl-FreqInfoList***This field indicates the NR sidelink communication configuration on some carrier frequency (ies). In this release, only one entry can be configured in the list. |
| ***sl-MeasConfigCommon***This field indicates the measurement configurations (e.g. RSRP) for NR sidelink communication. |
| ***sl-NR-AnchorCarrierFreqList***This field indicates the NR anchor carrier frequency list, which can provide the NR sidelink communication configurations. |
| ***sl-OffsetDFN***Indicates the timing offset for the UE to determine DFN timing when GNSS is used for timing reference. Value 0 corresponds to 0 milliseconds, value 1 corresponds to 0.001 milliseconds, value 2 corresponds to 0.002 milliseconds, and so on. |
| ***sl-RadioBearerConfigList***This field indicates one or multiple sidelink radio bearer configurations. |
| ***sl-RLC-BearerConfigList***This field indicates one or multiple sidelink RLC bearer configurations. |

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| CHANGE END |