**3GPP TSG-RAN WG2 Meeting #116 electronic R2-2111425**

**Online, 1st – 12th Nov, 2021**

Agenda item: 6.2.2

**Source: Huawei, HiSilicon**

**Title: Summary [AT116-e][707][V2X/SL] Miscellaneous CR on 38.331**

**Document for: Discussion and Decision**

# Introduction

This document summarizes the offline discussion as:

* [AT116-e][707][V2X/SL] Miscellaneous CR on 38.331 (Huawei)

 **Scope:** Discuss CRs in R2-2109596, R2-2109630/R2-2109629, R2-2109806/R2-2109804, R2-2110269, R2-2110611, R2-2110795, and R2-2110831, and merge the agreeable changes.

 **Intended outcome:** 38.331 CR in R2-2111424 and discussion summary in R2-2111425 (if need)

 **Deadline:** 11/9, 10:00am UTC

|  |  |  |
| --- | --- | --- |
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# Correction CRs based on LS in R1-2108393

**Table 1: Correction CRs based on LS in R1-2108393**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Tdoc** | **Title** | **Company** | **Summary of changes/proposals**  | **Rapp’s remark** |
| **R2-2109596** | Miscelleneous CR on 38.331 | Huawei, HiSilicon | 1. “In the LS R1-2108393 from RAN1, RAN2 is requested to capture following RAN1 agreement on sidelink resource allocation mode 2 that

A UE is expected to be (pre-)configured with a set *sl-ResourceReservePeriod* containing value of 0 ms Accordingly, in field description of *sl-ResourceReservePeriodList* in IE *SL-ResourcePool,* it should be clarified that in case Mode 2 is configured, at least value 0ms should be included in the list. “***sl-ResourceReservePeriodList***Set of possible resource reservation period allowed in the resource pool in the unit of ms. Up to 16 values can be configured per resource pool. In case Mode 2 is configured, at least value 0ms should be included in the list.1. Fix the editorial errors.
 | For the first change of Rapp’s Misc CR and the other four CRs in this group, all are based on RAN1 LS R1-2108393. The discussion would be to find the optimal wording for a straightforward clarification.  |
| **R2-2109630/ R2-2109629** | CR to 38.331 on ResourceReservationPeriodList | Qualcomm Finland RFFE Oy | ***sl-ResourceReservePeriodList***Set of possible resource reservation period allowed in the resource pool in the unit of ms. Up to 16 values can be configured per resource pool. The value ms0 is always configured. |
| **R2-2110611** | Corrections on RRC parameter sl-ResourceReservePeriodList | CATT | ***sl-ResourceReservePeriodList***Set of possible resource reservation period allowed in the resource pool in the unit of ms. Up to 16 values can be configured per resource pool, value ms0 shall be included. |
| **R2-2110795** | Inclusion of 0 ms resource reservation period in sl-ResourceReservePeriodList | MediaTek Inc. | ***sl-ResourceReservePeriodList***Set of possible resource reservation period allowed in the resource pool in the unit of ms. Up to 16 values can be configured per resource pool. Network includes a list entry with the value *ms0* for each resource pool. |
| **R2-2110831** | Correction on TS 38.331 from the latest RAN1 decision | ZTE Corporation, Sanechips | ***sl-ResourceReservePeriodList***Set of possible resource reservation period allowed in the resource pool in the unit of ms. Up to 16 values can be configured per resource pool. A UE is expected to be (pre-)configured with a set *sl-ResourceReservePeriod* containing value of 0 ms. |

As the first change of R2-2109596 and changes in R2-2109630, R2-2110611, R2-2110795 and R2-2110831 in Table 1 are on the same issue by RAN 1 LS in R1-2108393, Rapp suggest we can discuss on the need of change and further discuss on optimal working for the change:

**Q1: Would your company agree to have the change based on LS in** **R1-2108393 and which wording would your company prefer for the change?**

**Option 1: Up to 16 values can be configured per resource pool, and value ms0 shall be always configured.**

**Option 2: Up to 16 values can be configured per resource pool. The value ms0 is always configured.**

**Option 3: Up to 16 values can be configured per resource pool, value ms0 shall be included.**

**Option 4: Up to 16 values can be configured per resource pool. Network includes a list entry with the value ms0 for each resource pool.**

**Option 5: Up to 16 values can be configured per resource pool. A UE is expected to be (pre-)configured with a set sl-ResourceReservePeriod containing value of 0 ms.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Company** | **Agree/disagree on having the change** | **Wording option**  | **Further comments** |
| **Apple** | **Agree** | **Option 2** | **We can further clarify that ms0 is always included as the first element in the *sl-ResourceReservePeriodList*** |
| **CATT** | **Agree** | **Option 2** | **We slightly prefer option2.** |
| **vivo** | **Agree** | **Option 2/4** |  |
| **OPPO** | **Agree** | **1/2/3** |  |
| **Nokia** | **Agree** | **Option 1/2/3** |  |
| **MediaTek** | **Agree** | **Option 2/4** | **Options 1/3 are not OK because of “shall” requirements on the network. Option 5 is not really a normal idiom for the spec (we don’t use the phrase “UE is expected” elsewhere).** |
| **Intel** | **Agree** | **Options 1/2/3** | **No strong preference** |
| **Ericsson** | **Agree** | **Option 2** |  |
| **Qualcomm** | **Agree** | **Option 2** |  |
| **LG** | **Agree** | **Option 2** |  |
| **ZTE** | **Agree** | **Option5** |  |
| **Lenovo** | **Agree** | **Option 2/4** | **Maybe better to say The value ms0 is always included.** |
| **Huawei, HiSilicon** | **Agree** | **Option 1/2/3** |  |
| **Rapp** |  | **Option 2: 12/13.**  | **Option 2 is adopted** |

**Proposal 1: Add change based on LS in R1-2108393 as “The value ms0 is always configured.”**

The other changes in R2-2109596, miscellaneous CR on 38.331, are all changes on font style or correcting typos.

**Q2: Would your company disagree on any editorial changes in R2-2109596, miscellaneous CR on 38.331**

|  |  |  |
| --- | --- | --- |
| **Company** | **Which editorial change** | **Further comments** |
|  |  |  |
|  |  |  |

**Proposal 2: Editorial changes in R2-2109596 are agreed.**

# Other correction CRs

**Table 2: Other correction CRs**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Tdoc** | **Title** | **Company** | **Summary of changes/proposals**  | **Rapp’s remark** |
| **R2-2109806/ R2-2109804** | Correction of IE sl-HARQ-FeedbackEnabled | Nokia, Nokia Shanghai Bell | ***sl-HARQ-FeedbackEnabled***This field is mandatory present. It indicates the HARQ feedback enabled/disabled restriction in LCP for this sidelink logical channel. If set to enabled, the sidelink logical channel will be multiplexed only with a logical channel which enabling the HARQ feedback. If set to *disabled*, the sidelink logical channel cannot be multiplexed with a logical channel which enabling the HARQ feedback. Corresponds to ‘sl-HARQ-FeedbackEnabled’ in TS 38.321 [3]. If this field of at least one sidelink logical channel for the UE is set to enabled, sl-PSFCH-Config should be mandatory present in at least one of the SL-ResourcePool. | The change itself as one NBC approach is sensible/agreeable, once RAN2 acknowledges that there is indeed discrepancy between RRC and MAC spec regarding the configuration of “sl-HARQ-FeedbackEnabled”.  |
| **R2-2110269** | Correction on SL RLC parameter configuration | vivo |

| ***SL-RLC-Config* field descriptions** |
| --- |
| sl-MaxRetxThresholdParameter value of maxRetxThreshold for RLC AM for NR sidelink communications, see TS 38.322 [4]. Value t1 corresponds to 1 retransmission, value t2 corresponds to 2 retransmissions and so on. |
| Sl-PollByteParameter value of pollByte for RLC AM for NR sidelink communications, see TS 38.322 [4]. Value kB25 corresponds to 25 kBytes, value kB50 corresponds to 50 kBytes and so on. Infinity corresponds to an infinite amount of kBytes. |
| Sl-PollPDUParameter value of pollPDU for RLC AM for NR sidelink communications, seeTS 38.322 [4]. Value p4 corresponds to 4 PDUs, value p8 corresponds to 8 PDUs and so on. Infinity corresponds to an infinite number of PDUs. |
| Sl-SN-FieldLengthThis field indicates the RLC SN field size for NR sidelink communication, see TS 38.322 [4]. For groupcast and broadcast, only value size6 (6 bits) is configured for the field sl-SN-FieldLengthUM. |
| Sl-T-PollRetransmitTimer value of t-PollRetransmit for RLC AM for NR sidelink communications, see TS 38.322 [4], in milliseconds. Value ms5 means 5 ms, value ms10 means 10 ms and so on. |

9.1.1.4 SCCH configurationParameters that are specified for unicast of NR sidelink communication, which is used for the sidelink signalling radio bearer of PC5-RRC message. The SL-SRB using this SCCH configuration is named as SL-SRB3.

| Name | Value | Semantics description | Ver |
| --- | --- | --- | --- |
| PDCP configuration |  |  |  |
| *>*t-Reordering | Undefined | Selected by the receiving UE, up to UE implementation |  |
| *>*pdcp-SN-Size | 12 |  |  |
| RLC configuration |  | AM RLC |  |
| *>sn-FieldLength* | 12 |  |  |
| *>*t-Reassembly | Undefined | Selected by the receiving UE, up to UE implementation |  |
| *>t-PollRetransmit* | Undefined | Selected by the transmitting UE, up to UE implementation |  |
| *>pollPDU* | Undefined | Selected by the transmitting UE, up to UE implementation |  |
| *>pollByte* | Undefined | Selected by the transmitting UE, up to UE implementation |  |
| *>maxRetxThreshold* | Undefined | Selected by the transmitting UE, up to UE implementation |  |
| *>t-StatusProhibit* | Undefined | Selected by the receiving UE, up to UE implementation |  |
| *>*logicalChannelIdentity | 3 |  |  |
| MAC configuration |  |  |  |
| *>priority* | 1 |  |  |
| *>prioritisedBitRate* | infinity |  |  |
| *>logicalChannelGroup* | 0 |  |  |
| >*schedulingRequestId* | 0 | The scheduling request configuration with this value is applicable for this SCCH if configured by the network. |  |

 | The change on the description of “SL-RLC-Config”, following the approach for the similar issue with “PDCP spec”, is reasonable, also it is straightforward to add the missing parameters, once RAN2 confirms the changes are needed. |

**Q3: On above CR in R2-2109806 in Table 2, would your company agree that there is discrepancy between RRC and MAC spec regarding the configuration of “sl-HARQ-FeedbackEnabled”, and the change is needed as proposed?**

|  |  |  |
| --- | --- | --- |
| **Company** | **Agree/disagree on having the change** | **Further comments (e.g. on the change wording)** |
| **Apple** | **Agree** |  |
| **CATT** | **Agree** |  |
| **vivo** | **Disagree and see comments** | **First, changing the need code must be an NBC change as indicated by the Rapp. On the other hand, to us the problem seems to be caused by the unclear description on the LCP restriction of sl-HARQ-FeedbackEnabled, e.g. how to transmit an SL LCH with this field absent. So, we propose to postpone this issue, and see what we can do in the MAC Spec in the next meeting.**  |
| **OPPO** | **Agree** | **Intention agreeable, and we do not think there is a need to invite other solution in MAC spec.** |
| **Nokia** | **Agree (proponent)** | **As we have argued in R2-2109804 we agree that an accurate fix of the problem would be to correct the ASN.1 representation. However, as ASN.1 for Rel-16 is frozen and NBC change are not on the table (since the WID is completed), we have proposed to modify the field description stating that the IE must be mandatory present.**  |
| **MediaTek** | **Agree (comment on wording)** | **We agree with the proponent that this is not an NBC change. The wording is not ideal; we generally use the “mandatory present” wording in conditions but not field descriptions. (There are a couple of exceptions, but I think they’re mistakes.) Suggest “network always includes this field”.** |
| **Intel** | **Agree** |  |
| **Ericsson** | **Agree but** | **We agree with MediaTek to capture this as “Network always includes this field”. Also, this change is indeed NBC and needs to be clearly stated in the CR coversheet.**  |
| **Qualcomm** | **Agree** | **We agree with MediaTek’s suggested wording** |
| **LG** | **Agree** |  |
| **ZTE** | **Disagree** | **We agree the intention, however, we think the modification should be done in MAC, not RRC.** |
| **Lenovo** | **Agree** | **Update RRC could be simpler compared with update MAC. Agree with MediaTek’s suggestion wording** |
| **Huawei, HiSilicon** | **Agree** |  |
| **Rapp** | **Agree/Disagree: 11/2** | **Agreed to capture in RRC spec with wording “Network always includes this field”** |

**Proposal 3: For change in R2-2109806, agree to capture in RRC spec as “Network always includes this field”.**

**Q4: On above CR in R2-2110269 in Table 2, would your company agree that the first group of changes on the description of “SL-RLC-Config” is needed and/or the missing parameters shall be added (second group of changes)?**

|  |  |  |  |
| --- | --- | --- | --- |
| **Company** | **Agree/disagree on the first group of changes** | **Agree/disagree on the second group of changes** | **Further comments(e.g. on the change wording)** |
| Apple | Agree | **Agree** |  |
| **CATT** | **Agree** | **Agree** |  |
| vivo | Agree (proponent) | Agree (proponent) |  |
| OPPO | Agree | Agree |  |
| Nokia | Agree | Agree |  |
| MediaTek | Agree | Agree |  |
| Intel | Agree | Agree |  |
| Ericsson | Agree | Agree |  |
| LG | Agree | Agree |  |
| ZTE | Agree | Agree |  |
| Lenovo | Agree | Agree |  |
| Huawei, HiSilicon | Agree | Agree |  |
| Rapp |  |  | Changes in R2-2110269 are agreed as they are. |

**Proposal 4: Changes in R2-2110269 are agreed.**

# Conclusions

**Proposal 1: Add change based on LS in R1-2108393 as “The value ms0 is always configured.”**

**Proposal 2: Editorial changes in R2-2109596 are agreed.**

**Proposal 3: For change in R2-2109806, agree to capture in RRC spec as “Network always includes this field”.**

**Proposal 4: Changes in R2-2110269 are agreed.**