3GPP TSG-RAN WG2 #118 Tdoc R2-2205506

Electronic, 09 – 20 May, 2022

Agenda Item: 6.5.1

Source: Ericsson

Title: Summary of [Pre118-e][502][IIoT URLLC] 38331 CR and rapporteur resolutions (Ericsson)

Document for: Discussion, Decision

# 1 Introduction

In this contribution, we summarize the outcome of the pre-meeting discussion [Pre118-e][502][IIoT URLLC] 38331 CR and rapporteur resolutions (Ericsson) [1].

# 2 Discussion

In total 22 class1/2 RIL issues are identified by companies, see Annex 5. The below 17 RIL issue are proposed to be agreed by the rapportuer and the CR to implement these are submitted as R2-2205507 [2].

V224, v225, I005, H700, H701, I035, Z300, H702, H644, I037, I040, v226, A403, E127, E040, E143, C061

1. Agree on the RIL issues v224, v225, I005, H700, H701, I035, Z300, H702, H644, I037, I040, v226, A403, E127, E040, E143, C061.

The RRC CR also contains class 0 editorial changes 375, 454, 455. Rapportuer proposes to adopt the CR as the baseline and incorporate any further changes made during RAN2#118 meeting.

1. Rapportuer RRC correction CR R2-2205507 is adopted as baseline correction CR.

The below 5 RIL issues are to be discussed in the meeting:

E039, O501, O500, E038, H703

1. Discuss RIL issue E039, O501, O500, E038, H703 in RAN2#118.

# 3. Conclusion

Based on the discussion in the previous sections we propose the following:

[Proposal 1 Agree on the RIL issues v224, v225, I005, H700, H701, I035, Z300, H702, H644, I037, I040, v226, A403, E127, E040, E143, C061.](#_Toc101884207)

[Proposal 2 Rapportuer RRC correction CR R2-2205507 is adopted as baseline correction CR.](#_Toc101884208)

[Proposal 3 Discuss RIL issue E039, O501, O500, E038, H703 in RAN2#118.](#_Toc101884209)

# 4. References

1. Pre-meeting email discussion folder

<https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_118-e/Inbox/Drafts/%5BPre118-e%5D%5B502%5D%5BIIoT%20URLLC%5D%2038331%20CR%20and%20rapporteur%20resolutions%20(Ericsson)>

1. R2-2205507, Corrections for enhanced IIoT&URLLC support for NR, Ericson, RAN2#118

# 5. RIL issue list

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ID** | **Proposed Conclusion** | **Description** | **Proposed Change** | **Comments** |
| E039 | Discuss | To resolve the editor’s note. It is assumed (without explicit RAN2 agreements) that only the latest measurement is included in the report, e.g., no filtered measurement, no multiple measurement reports. Proponent companies for other measurement reporting can bring discussion paper in the maintenance phase. |  | At-meeting email discussion to collect inputs. |
| v224 | PropAgree | According to the clause 5.2.2.4.10，upon receiving SIB9 with referenceTimeInfo, the UE may perform the related actions as specified in subclause 5.7.1.3. This means that UE may ignore all further referenceTimerInfo received in SIB9 even though UE receives the reference time this time via broadcast signalling. | Two options can be considered to solve this issue as following: Option 1: modify the clause 5.2.2.4.10 5.2.2.4.10 Actions upon reception of SIB9 Upon receiving SIB9 with referenceTimeInfo, the UE may perform the related actions except for the handling of ignoring all further referenceTimeInfo received in SIB9 as specified in subclause Option 2: modify the clause 5.7.1.3 2> if the referenceTimeInfo is received via the DLInformationTransfer, ignore all further referenceTimeInfo received in SIB9 | Option 1 is preferred and adopted.  If RAN2 adopts Option 2, then this paragraph 5.7.1.3 looks strange without cross-checking SIB9-related clause. |
| O501 | Discuss | It is agreed in RAN2#117 that, as soon as a UE receives its reference time information via dedicated signaling, it ignores all further reference time information received over SIB9. It means that the UE shall continue to receive the RTI via SIB9, but the UE will not apply it. The description related to sib9Fallback looks like to let the UE re-start the reception of the RTI in SIB9. Furthermore, after falling back to SIB9, the UE shall not ignore all further RTI in SIB9 until the RTI in new dedicated signaling is received. | Upon receiving DLInformationTransfer message, the UE shall: 1> if dedicatedNAS-Message is included: 2> forward dedicatedNAS-Message to upper layers. 1> if referenceTimeInfo is included: 2> calculate the reference time based on the time, referenceSFN and timeInfoType if it is included; 2> calculate the uncertainty of the reference time based on the uncertainty, if uncertainty is included; 2> inform upper layers of the reference time and, if uncertainty is included, of the uncertainty; 2> if the referenceTimeInfo is included in DLInformationTransfer: 3> ignore all further referenceTimeInfo received in SIB9, if any. 1> if sib9Fallback is included: 2> fallback to apply referenceTimeInfo in SIB9. | At-meeting email discussion to collect inputs |
| v225 | PropAgree | UE behaviour when the TA PDC is activated is missing in the current procedure | add the UE behaviour when the TA PDC is activated like below If ta-PDC is set to activate: 2>Inform upper layers of the propogation delay determined by the latest accumulated TA. | RAN2 agrees that "UE-side TA PDC is activated/de-activated by a Boolean. No need to specify PD calculation in RAN2 spec." It is clear that RAN2 does not specify exactly how to calculate, but it is true that one should be clear on what UE needs to do when such a configuratoin is recevied.  Rapporter proposes to adopt this, unless there are concerns from companies. |
| I005 | PropAgree | It doesn’t seem good to have no delta configuration of these fields when the message is used for NAS transfer. | Introduce delta signalling and a mechanism to release these fields. | The field rxTxTimeDiff-gNB-r17 triggers one-time action, as commented by H700. It was a mistake and the need code should be Need -N. In this regard, it seems to be okay not to introduce delta signalling.  Rapporter proposes that the RIL is closed without any changes. |
| H700 | PropAgree |  | For both “rxTxTimeDiff-gNB-r17” and “sib9Fallback-r17”, change “Need R” to “Need N”. | Agree and change to Need N |
| O500 | Discuss | It is agreed in RAN2#117 that the network tells the UE whether to fall back to SIB9 via explicit signaling, at least in the RRC reconfiguration with sync and reconfiguration after re-establishment. The condition on the presence of IE sib9Fallback is missing. | Add one more sentence in this field description, i.e. The field may be present at least upon RRC reconfiguration with sync or reconfiguration after re-establishment. | At-meeting email discussion to collect inputs |
| H701 | PropAgree | NR\_IIOT\_URLLC\_enh-Core | The network configures multiple CG configurations for one BWP with either all configurations or no configuration configured with cg-RetransmissionTimer-r16. | The intention is that this applies for one BWP, since the parent IE is BWP-UplinkDedicated.  Agree to add for clarity. |
| E038 | Discuss | To resolve the Editor’s note. The last part “the UE ignores the field channelAccessPriority-r16” may be already implemented by RAN1 spec 37.213. RAN2 to discuss in the maintenance phase on whether to remove this to avoid misinterpretation. |  | At-meeting to collect inputs |
| I035 | PropAgree | Need code for absence seems relevant here. | Add Need R | Agree |
| Z300 | PropAgree | According to RAN1 agreement, the network can configure a PRS resource set for a UE for PDC. | Add “set after “PRS resource”. | it was a typo and agree to change as indicated |
| H702 | PropAgree | This is uplink message, need code is not needed. | -- Need R. | Agree |
| H644 | PropAgree | This description is not accurate, the retransmission grant is for CG not DG. | “a retransmission grant addressed to the MAC entity’s CS-RNTI, as specified in TS 38.321 [3].” | Okay to clarify that this is only for Configured Grant (CG) also in the RRC spec.  Propose to added "addressed to CS-RNTI" as it is clear already without mentioning of "the MAC entity's" |
| H703 | Discuss | This field shall be absent for split bearer without duplication. | “, or the PDCP duplication states are deactivated for all associated RLC entities,” | At-meeting email discussion to collect inputs Rapporter understands that for split bearer it is possible to configure this field so that the split bearer can be later activated with PDCP duplication. |
| I037 | PropAgree | Use of conditional presence for addMod lists is problematic. | Change to Need N and move the condition as a network restriction in the field description. | Okay to change as proposed.  This is to align the guidelines in A.3.9 which indicates that addMod list is "need N" |
| I040 | PropAgree | Need code for absence seems relevant here. | Add Need R. | Agree |
| v226 | PropAgree | The field description of rxTxReportInterval and the related UE behaviour in the measurement reporting procedure is missing. | Add the field description rxTxReportInterval This field indicates the periodicity for measurement reporting of UE Rx-Tx time difference. | Agree |
| A403 | PropAgree | The field description of RxTxPeriodical and rxTxReportInterval is missing | Add a The field description for RxTxPeriodical and rxTxReportInterval | Agree |
| E127 | PropAgree | RAN1 agrees that If RTT-based PDC is supported, a single granularity 32Tc (i.e. k=5) is supported for Rx-Tx measurement report. But it also concludes The reporting range of Rx-Tx time difference measurement for RTT-based PDC is up to RAN4. To be on the safe side in case the range is changed, better to make this field optional need R |  | Agree to change it to optional and add need N |
| E040 | PropAgree | It is agreed that the offset duration indicated by this field is less than the period duration indicated by periodUE. It is agreed that in semi-static channel access mode, the maximum UE FFP periodicity is 10 milliseconds which corresponds to the number of OFDM symbols 140/280/560. The maximum value is thus 559. The corresponding field description needs to be updated. The maximum value is indeed 1119 in the RRC parameter list but this is a typo that is missed to be corrected in the excel sheet file. |  | Agree and change the maximum value of offsetUE to 559.  The field descriptions are updated aslo. |
| E143 | PropAgree | the field description is copied from RRC excel sheet. There was a typo and here the parameter should be referred to the primary PUCCH group. The secondary PUCCH group is referred by the parameter pdsch-HARQ-ACK-EnhType3SecondaryPUCCHgroup | Change to primary pucch group. | Agree and implement the changes in PhysicalCellGroupConfig |
| C061 | PropAgree | It seems the field pci-r17 is inherited from positioning, and is used to associate a cell to a PRS. It is needed only when PRS can be in different cells. But in our understanding, RAN1 considers PRS-PDC in PCell only. So pci-r17 is not necessary. | Remove ‘pci-r17 PhysCellId,’ | Agree and  assume that this has been captured in RAN1 spec, i.e., always Pcell |