3GPP TSG-RAN WG2 Meeting #111 electronic R2-2008202

Online, August 17th– 28th, 2020

Source: CATT

Title: Summary of offline 114 - TP for PUCCH configuration with subslotLengthForPUCCH-r16

Agenda Item: 6.14.2

Document for: Discussion and Decision

# Introduction

This contribution provides a summary of the following offline:

* [AT111e][114][L1enh\_URLLC] RRC CRs (CATT)

Scope: discuss the TP for a possible revision of [R2-2007080](file:///C%3A%5CData%5C3GPP%5CExtracts%5C38331_CR1783r0_%28Rel-16%29_R2-2007080.docx) and revise [R2-2007862](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2007862%20Converting%20suffix%20ForDCI-Formatx-y%20for%20shorter%20RRC%20parameter%20names.docx)

Intended outcome: Agreeable TP for a possible revision of [R2-2007080](file:///C%3A%5CData%5C3GPP%5CExtracts%5C38331_CR1783r0_%28Rel-16%29_R2-2007080.docx) in R2-2008202

and agreeable CR in R2-2008203

Initial deadline (for companies' feedback): Wednesday 2020-08-26 07:00 UTC

Initial deadline (for TP in R2-2008202 and CR in R2-2008203): Wednesday 2020-08-26 09:00 UTC

# Discussion

# TP for a possible revision of [R2-2007080](file:///C%3A%5CData%5C3GPP%5CExtracts%5C38331_CR1783r0_%28Rel-16%29_R2-2007080.docx) [1]

As detailed in [1] we have the following configuration restrictions when *subslotLengthForPUCCH-r16* is configured in a *PUCCH-Config*, which are currently captured nowhere:

* PUCCH resource(s) for HARQ-ACK feedback within the *PUCCH-Config* should be configured within a sub-slot (not across sub-slot boundaries).
* PUCCH resource(s) for SR/CSI with the same priority as the *PUCCH-Config* should be configured within the sub-slot associated with this *PUCCH-Config*.
* The determination of priority of HARQ-ACK, SR, CSI and *PUCCH-Config* are specified in 38.213, clause 9.

The related on-line discussion in RAN2 was as follows:

[R2-2007080](file:///C%3A%5CData%5C3GPP%5CExtracts%5C38331_CR1783r0_%28Rel-16%29_R2-2007080.docx) PUCCH configuration with subslotLengthForPUCCH-r16 CATT CR Rel-16 38.331 16.1.0 1783 - F NR\_L1enh\_URLLC-Core

* Ericsson thinks this should be captured in RAN1 specs. Huawei thinks this should be captured somewhere and this is not in RAN1 spec at the moment. ZTE thinks the principle is ok but would like to have more time to check where the description should go
* CATT suggests that the topic for the offline could be to discuss the wording for a possible RRC CR \*IF\* RAN1 will decide that this will not be described in RAN1 specs.
* Continue in offline 114

The CR in R2-2007080 also addresses a typo in the 38.213 reference in the field description of *subslotLengthForPUCCH*:

The parameter *subslotLengthForPUCCH* is specified in 38.213, clause 9 instead of clause 9.1.

In the meantime, RAN1 discussed potential capture of the above in RAN1 specifications (offline [102-e-NR-L1enh-URLLC-UCI\_Enh-02] Misc corrections/clarifications) and just agreed in GTW session:

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| --- |
| **R1-2007054** Summary#1 of email thread [102-e-NR-L1enh\_URLLC-UCI\_Enh-02] Moderator (OPPO)[…]**Agreement**The following text proposal is endorsed as part of editor’s CR on TS38.213.**--------------------------------- Start of Proposed Text 1 for TS 38.213 -------------------------------****9 UE procedure for reporting control information**A PUSCH or a PUCCH transmission, including repetitions if any, can be of priority index 0 or of priority index 1. For a configured grant PUSCH transmission, a UE determines a priority index from *priority*, if provided. For a PUCCH transmission with HARQ-ACK information corresponding to a SPS PDSCH reception or a SPS PDSCH release, a UE determines a priority index from *harq-CodebookID*, if provided. For a PUCCH transmission with SR, a UE determines the corresponding priority as described in subclause 9.2.4. If a priority index is not provided to a UE for a PUSCH or a PUCCH transmission, the priority index is 0. If a *PUCCH-Config* is provided with a *subslotLengthFor PUCCH,*the PUCCH resource corresponding to any SR or CSI configuration with the same priority as the PUCCH-Config, should be confined within the sub-slot associated to the PUCCH-Config.**--------------------------------- End of Proposed Text 1 for TS 38.213 -------------------------------** |

Therefore there is no longer a need to capture this in RRC specification, and the CR in [1] reduces to the simple typo fix mentioned above:

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| ***subslotLengthForPUCCH***Indicate the sub-slot length for sub-slot based PUCCH feedback in number of symbols (see TS 38.213 [13], clause 9~~.1~~). Value *n2* corresponds to 2 symbols, value *n6* corresponding to 6 symbols, value *n7* corresponds to 7 symbols. For normal CP, the value is either *n2* or *n7*. For extended CP, the value is either *n2* or *n6*. |

**Q1: Do you agree with the above typo fix?**

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| Company | Yes/No | Comments |
| CATT | Yes |  |
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# Revision of R2-2007862

The related discussions and action point are as below.

[R2-2007862](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2007862%20Converting%20suffix%20ForDCI-Formatx-y%20for%20shorter%20RRC%20parameter%20names.docx) Converting suffix ForDCI-Formatx-y for shorter RRC parameter names Huawei, HiSilicon CR Rel-16 38.331 16.1.0 1937 - F NR\_L1enh\_URLLC-Core

* Nokia thinks this a good idea. QC thinks that in the main session it was agreed to do this and also inform RAN1. Ericsson is fine with this.
* Ok with the principle but the CR needs revision.
* Revised in R2-2008203
* Continue in offline 114

According to the online discussions there may need some changes to the proposed CR, which is the focus of the discussion in the following.

**Q2: Do you think any changes are required to the proposed CR in R2-2007862‎?**

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| Company | Yes/No | Comments (please explain in detail if your answer is *yes*, or directly in the [draft CR](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_111-e/Inbox/Drafts/%5BOffline-114%5D%5BL1enh_URLLC%5D%20RRC%20CRs%20%28CATT%29/DraftR2-2008203%20Converting%20suffix%20ForDCI-Formatx-y%20for%20shorter%20RRC%20parameter%20names.docx) in the 114 folder) |
| CATT | No |  |
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# Conclusions

# Reference

1. [R2-2007080](file:///C%3A%5C%5CData%5C%5C3GPP%5C%5CExtracts%5C%5C38331_CR1783r0_%28Rel-16%29_R2-2007080.docx%22%20%5Co%20%22C%3AData3GPPExtracts38331_CR1783r0_%28Rel-16%29_R2-2007080.docx) PUCCH configuration with subslotLengthForPUCCH-r16; CATT
2. R2-2007862 Converting suffix ForDCI-Formatx-y for shorter RRC parameter names; Huawei, HiSilicon