**3GPP TSG-RAN WG1 Meeting #114 R1-23xxxxx**

**Toulouse, France, 21-25 August, 2023**

**Agenda Item: 9.17**

**Source: Moderator (Huawei)**

**Title: Summary of email discussion [Post114-38.212-NR\_XR\_enh-Core]**

**Document for: Discussion and Decision**

# Introduction

This document summarizes the discussions on the 38.212 draft CR on XR enhancements for NR, and aims to stabilize the 38.212 draft CR.

[Post114-38.212-NR\_XR\_enh-Core] Email discussion on Rel-18 draft CRs by September 7 – Editors

# First round discussions

This section summarize the first round email discussions on draft CR v00. Companies are encouraged to provide the first round views by 09/05 (Tuesday), 6:00am UTC, then we can update the draft CR accordingly for the next step discussions.

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| *Company* | *View* |
| **Qualcomm** | Comment 1: In the CR, editor seems using two strategies. In some places, UTO-UCI is indirectly introduced by replacing CG-UCI, e.g., in the following CR text

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| If UTO-UCI is present for transmission on the PUSCH without HARQ-ACK, step 2A is applied by replacing CG-UCI with UTO-UCI in all the notations and texts.  |

In other places, UTO-UCI is directly introduced, e.g., in “6.3.2.1.4A HARQ-ACK and UTO-UCI”. We are fine with both.  |
| **ZTE, Sanechips** | **Comment 1:**The changes to section 6.3.2.4.1 “UCI encoded by Polar code” seems not needed, because the maximum size of UTO-UCI is 8 bits based on the agreement. And for Uplink control information on PUSCH, when the payload of one UTO-UCI is less than 12 bits, Polar coding doesn’t apply.

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| 6.3.2.2 Code block segmentation and CRC attachmentDenote the bits of the payload by , where  is the payload size. The procedure in 6.3.2.2.1 applies for  and the procedure in Clause 6.3.2.2.2 applies for . 6.3.2.2.1 UCI encoded by Polar codeCode block segmentation and CRC attachment is performed according to Clause 6.3.1.2.1. 6.3.2.2.2 UCI encoded by channel coding of small block lengthsThe procedure in Clause 6.3.1.2.2 applies. |

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| **Agreement**For a CG configuration with UTO-UCI indication enabled:* For the range value for the RRC parameter Nu (Nu is the size of bit-map): (3, …, 8)
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| **Samsung** | Thank you for the draft CR. Comments from Samsung are as follows.We think the approach used in Clause 6.3.2.1.5 (and in other clauses, e.g. 6.3.2.7) is cleaner and easier for the reader to follow than the duplication of a large amount of text in Clauses 6.3.2.4.1.2, 6.3.2.4.1.3, and 6.3.2.4.1.5. It would be nicer to have a uniform approach. It can just be stated that CG-UCI (and respective notation) can be replaced by UTO-UCI (and respective notation). Similarly, there is no need for new clauses 6.3.2.4.1.4a 6.3.2.4.2.4A – clauses 6.3.2.4.1.4 and 6.3.2.4.2.4 can be used based on a statement similar to that in clause 6.3.2.1.5. For Clause 6.3.2.4.2.5, it would be clearer to say “For HARQ-ACK and CG-UCI transmission, or for HARQ-ACK and UTO-UCI transmission” instead of “For HARQ-ACK and CG-UCI/UTO-UCI transmission” as the meaning of “CG-UCI/UTO-UCI” is undefined. |

# Second round discussions

TBD