**3GPP TSG RAN WG1 Meeting #114 R1-230xxxx**

Toulouse, France, August 21 – 25, 2023

**Agenda item: 9.17**

**Source: Nokia, Nokia Shanghai Bell**

**Title: Summary on email discussion on NR\_XR\_enh-Core**

**Document for: Discussion and Decision**

# 1 Introduction

This document contains company observations on the draft CR to 38.214 for the Rel18 NR\_XR\_enh-Core.

First checkpoint for this discussion: **September 5th, 6:00 am UTC**!

# 2 Discussion – first round

The comments in this section are based on the version 0 of the draft CR.

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| Company | Comments | Editor reply/Notes |
| Qualcomm | Comment 1: we understand the actually multiplexing is provided by TS 38.212, but the changes in section 5.2.3 such as the following one seems to indicate that ACK is counted twice through and . This implies one of and is applicable in the formula. This may need to be clarified.

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| When the UE is scheduled to transmit a transport block on PUSCH not using repetition type B multiplexed with a CSI report(s), Part 2 CSI is omitted only when  is larger than , where parameters , , , , , , , , , and are defined in Clause 6.3.2.4 of [5, TS 38.212]. |

Comment 2: The TS 38.213 CR also discussed invalid CG PUSCH TO by the spec text “For unpaired spectrum operation, the subsequent CG-PUSCH TOs exclude invalid ones where a UE does not transmit a PUSCH based on the procedures in Clause 11.1” with the following note from the TS 38.213 editor that

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| For a set of symbols of a slot that are indicated to a UE as downlink by tdd-UL-DL-ConfigurationCommon, or tdd-UL-DL-ConfigurationDedicated, the UE does not transmit PUSCH, PUCCH, PRACH, or SRS when the PUSCH, PUCCH, PRACH, or SRS overlaps, even partially, with the set of symbols of the slot.…For operation on a single carrier in unpaired spectrum, for a set of symbols of a slot indicated to a UE for reception of SS/PBCH blocks by ssb-PositionsInBurst in SIB1 or by ssb-PositionsInBurst in ServingCellConfigCommon or, if the UE is not provided dl-OrJointTCI-StateList, by ssb-PositionsInBurst in SSB-MTCAdditionalPCI associated to physical cell ID with active TCI states for PDCCH or PDSCH, or for a set of symbols of a slot corresponding to SS/PBCH blocks configured for L1 beam measurement/reporting, the UE does not transmit PUSCH, PUCCH, PRACH in the slot if a transmission would overlap with any symbol from the set of symbols and the UE does not transmit SRS in the set of symbols of the slot. The UE does not expect the set of symbols of the slot to be indicated as uplink by tdd-UL-DL-ConfigurationCommon, or tdd-UL-DL-ConfigurationDedicated, when provided to the UE. |

This is slightly than the current TS 38.214 CR w.r.t. the SSB condition. Some alignment between 38.213 and 38.214 may be needed.

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| If *[nrofSlots\_InCGperiod]* is configured for Type 1 configured grant or Type 2 configured grant, HARQ process ID is determined as in clause [5.4.1] of [10, TS 38.321] for PUSCH transmission(s) not overlapping with a DL symbol indicated by *tdd-UL-DL-ConfigurationCommon* or *tdd-UL-DL-ConfigurationDedicated* if provided, or a symbol of an SS/PBCH block with index provided by *ssb-PositionsInBurst*. |

Comment 3: At “If *cg-nrofSlots* if configured”, the correct text seems “If *cg-nrofSlots* is not configured”.

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| A set of allowed periodicities *P* are defined in [12, TS 38.331]. The higher layer parameters *cg-nrofSlots* and *[nrofSlots\_InCGperiod]*, provide the number of consecutive slots allocated within a configured grant period. If *cg-nrofSlots* if configured, the higher layer parameter *cg-nrofPUSCH-InSlot* provides the number of consecutive PUSCH allocations within a slot, where the first PUSCH allocation follows … |

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