**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 Red Cap enhancements**

**Document for: Discussion and Decision**

# 1 Introduction

This thread will discuss the draft CR to 38.214 for the Red Cap enhancements.

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

# 2 Discussion – first round

The comments in this section are based on version 0 of the the draft CR available in the **Post RAN1#114 discussion.**

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| Company | Comments | Editor reply/Notes |
| CATT | Thank you very much for the update! The two RAN1#114 agreements on ‘RA-RNTI/MSGB-RNTI vs unicast RNTI’ are only ‘For UE BB bandwidth reduction’,

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| Agreement: [RAN1#114]For UE BB bandwidth reduction, when PDSCH scheduled with RA-RNTI or MSGB-RNTI is not greater than 25/12 PRBs with 15/30kHz SCS, 38.214 clause 5.1 still applies, i.e.:…Agreement: [RAN1#114]For UE BB bandwidth reduction, when PDSCH scheduled with RA-RNTI or MSGB-RNTI is greater than 25/12 PRBs with 15/30kHz SCS, support the following UE behavior:… |

So the spec restriction should only apply to UE ‘that indicates supportOfRedCap-r18 capability but does not indicate FG 48-2’. In our understanding, RANP#99 conclusion ‘Same as Rel-18 eRedCap UE capable of BW3/PR3 + PR1’ only applies for initial access (Note 4: The initial access procedure of Rel-18 eRedCap UE capable of 20MHz + PR1 is realized by following)’, but this two agreements touches C-RNTI which means it is not ‘initial access’ but already in RRC\_CONNECTED model. Network already knows FG 48-2 is indicated or not.Suggest the following update by adding ‘but does not indicate FG 48-2’:The UE is not expected to decode a PDSCH scheduled with C-RNTI, MCS-C-RNTI, G-RNTI for multicast or broadcast, MCCH-RNTI, G-CS-RNTI or CS-RNTI if another PDSCH in the same cell scheduled with RA-RNTI or MSGB-RNTI, where the PDSCH scheduled with RA-RNTI or MSGB-RNTI for a reduced capability UE that indicates *supportOfRedCap-r18* but does not indicate FG 48-2 is allocated no more than 25 PRBs when configured with SCS  = 0 or no more than 12 PRBs when configured with SCS  = 1, partially or fully overlap in time. A UE indicating *supportOfRedCap-r18* capability but does not indicate FG 48-2 is not expected to decode a PDSCH scheduled with C-RNTI, MCS-C-RNTI, G-RNTI for multicast or broadcast, MCCH-RNTI, G-CS-RNTI or CS-RNTI in the same or next slot if another PDSCH in the same cell is scheduled with RA-RNTI or MSGB-RNTI, where the PDSCH scheduled with RA-RNTI or MSGB-RNTI is allocated more than 25 PRBs when configured with SCS  = 0 or more than 12 PRBs when configured with SCS  = 1. |  |
| Huawei, HiSilicon | Thanks for the draft CR.**//Comment#1**A clarification for the maximum number of PRBs for the following text seems necessary. It could be either referring to the FG 48-1 or be explicitly described.A UE that indicates *supportOfRedCap-r18* capability but does not indicate FG 48-2, during a process of P-RNTI triggered SI acquisition, when the total number of PRBs for the PDSCH scheduled with SI-RNTI and the PDSCH scheduled with C-RNTI, MCS-C-RNTI, or CS-RNTI scheduled in the slot is larger than the maximum number of PRBs that the UE can process per slot, the UE may skip decoding of the scheduled PDSCH with C-RNTI, MCS-C-RNTI, or CS-RNTI.

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| FG 48-112. Maximum number of PDSCH/PUSCH PRBs that can be scheduled for unicast per slot of 25 PRBs for 15 kHz SCS and 12 PRBs for 30 kHz SCS |

**Proposed changes:**A UE that indicates *supportOfRedCap-r18* capability but does not indicate FG 48-2, during a process of P-RNTI triggered SI acquisition, when the total number of PRBs for the PDSCH scheduled with SI-RNTI and the PDSCH scheduled with C-RNTI, MCS-C-RNTI, or CS-RNTI scheduled in the slot is larger than 25 PRBs if configured with SCS  = 0 or larger than 12 PRBs if configured with SCS  = 1 ~~the maximum number of PRBs that the UE can process per slot~~, the UE may skip decoding of the scheduled PDSCH with C-RNTI, MCS-C-RNTI, or CS-RNTI. |  |
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