**3GPP TSG RAN WG1 Meeting #101-e R1-200xxxx**

**E-Meeting, May 25 – June 5, 2020**

**Agenda Item: 6.2.2.4**

**Source: Moderator (Huawei)**

**Title: Text proposal on DCI size alignment**

**Document for: Discussion and Decision**

# Introduction

This document provides the text proposal as outcomes of the following email discussion [1]:

[101-e-LTE-NB\_IoTenh3-Coex-NR-01] DCI size misalignment by 5/29 – Yubo (Huawei)

* Issues #1 of [R1-2004704](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_101%5CDocs%5CR1-2004704.zip)

# Discussion

## TP on resource reservation to special subframes

**Reason for changes:**

The size of DCI format N1 will be larger than that of DCI format N0 if resource reservation or multi-TB scheduling is configured for downlink.

**Summary of changes:**

The DCI format N0 will be padded by zeros to align the size of DCI formats N0 and N1.

**Specs/sections impacted:**

36.212 sections 6.4.3.1

**Consequences if not approved:**

Sizes of DCI formats N0/N1 may be different thus the number of blind detection is increased.

**-----------------------------------------------------Start of Text Proposal-----------------------------------**

*<unchanged parts are omitted>*

6.4.3.1 DCI Format N0

DCI format N0 is used for the scheduling of NPUSCH and operation on preconfigured UL resources in one UL cell.

The following information is transmitted by means of the DCI format N0:

*<unchanged parts are omitted>*

- Number of scheduled TB for Unicast – 1 bit, where value 0 indicates a single TB is scheduled and value 1 indicates multiple TB are scheduled. This field is only present if higher layer parameter *multi-TB-Unicast-config* is enabled and the corresponding DCI is mapped onto the UE specific search space given by the C-RNTI as defined in [3]. The field is set to 0 if the CRC of the DCI is scrambled by SPS C-RNTI.

- HARQ process number – 1 bit. This field is only present if 2 HARQ processes are configured and the corresponding DCI format is mapped onto the UE specific search space given by the C-RNTI as defined in [3], or if Number of scheduled TB for Unicast is present. If multiple TB are scheduled, it functions as New data indicator for the second TB.

- Resource reservation – 1 bit as defined in clause 16.5 of [3]. This field is only present if higher layer parameter *valid-subframe-config-UL* or *slot-reserved-resource-config-UL* is configured and the DCI is mapped onto the UE-specific search space given by C-RNTI as defined in [3].

If the number of information bits in format N0 mapped onto the UE specific search space given by the C-RNTI as defined in [3] is less than that of format N1 in the same search space, zeros shall be appended to format N0 until the payload size equals that of format N1.

**------------------------------------------------------End of Text Proposal------------------------------------**

# References

1. R1-200xxxx Feature lead summary on 101-e-LTE-NB\_IoTenh3-Coex-NR-01 Moderator (Huawei)