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

**E-meeting, May 25 – June 5, 2020**

**Agenda Item: 6.2.2.7**

**Source: Moderator(Huawei)**

**Title: Feature lead summary on RRC parameters of NB-IoT**

**Document for: Discussion and Decision**

# Introduction

Agreements and conclusions in previous meeting for NB-IoT are summarized in [1].

The consolidated RRC parameter list has been endorsed in last meeting [2]. And the latest CR to 36.331 was endorsed as [3].

This paper summaries the views about the alignment of RRC parameter names between RAN1 and RAN2 specs.

# Discussion

As explained in [4], there are misalignment of higher layer parameters between physical layer specs and TS 36.331 as below, and proposed to discuss and make decision on how to resolve the issue.

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| Rel-16 NB-IoT features | Parameter name used in RAN1 specs | Parameter name defined in RAN2 (36.331) |
| PUR | *npdcch-NumRepetition­s-PUR* | *npdcch-NumRepetitions*  *(npdcch-Config-r16)* |
| *npdcch-StartSF-USS-PUR* | *npdcch-StartSF-USS*  *(npdcch-Config-r16)* |
| *npdcch-Offset-USS-PUR* | *npdcch-Offset-USS*  *(npdcch-Config-r16)* |
| *pur-NPUSCH-cyclic-shift* | *npusch-CyclicShift* |
| *Delta\_f^PUR* | *npusch-SubCarrierSetIndex* |
| Multi-TB scheduling | *multi-TB-Unicast-config* | *npdsch-MultiTB-Config*  *npusch-MultiTB-Config* |
| *multi-TB-DL-Unicast-Interleaving-config* | *multiTB-Config*  *(npdsch-MultiTB-Config)* |
| *multi-TB-UL-Unicast-Interleaving-config* | *npusch-MultiTB-Config* |
| *multi-TB-HARQ-ACK-Bundling* | *harq-ACK-Bundling*  *(npdsch-MultiTB-Config)* |
| *multi-TB-SC-MTCH-scheduling-gap-config* | *multiTB-Gap* |
| NR coexistence | *valid-subframe-config-DL* | *subframeBitmap-r16*  *(dl-ResourceReservationConfig)* |
| *slot-reserved-resource-config-DL* | *slotBitmap*  *(dl-ResourceReservationConfig)* |
| *valid-subframe-config-UL* | *subframeBitmap-r16*  *(ul-ResourceReservationConfig)* |
| *slot-reserved-resource-config-UL* | *slotBitmap*  *(ul-ResourceReservationConfig)* |
| NRS presence | *nrs-NonAnchor-config* | *nrs-NonAnchorConfig-r16* |

In [5], it is proposed to identify and correct the misalignment on higher layer parameter names, which can be handled by RAN1 spec rapporteurs or in a RAN1 reflector email discussion.

There are also such kind discussion in separate AIs, such as [6][7] for group WUS, [8] for PUR, [9] for Multi-TB scheduling and [10] for Co-ex with NR.

Please input your comments regarding the following aspects

* Whether the above table has covered all the misaligned RRC parameters
* Whether to have a separate email discussion to align the RRC parameter names to RAN2 specs.
* Whether to update the RAN1 RRC parameter list according to RAN2 spec

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| Companies | comments |
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# Summary

# References

1. R1-1913595, “RAN1 agreements for Rel-16 Additional Enhancements for NB-IoT”, Futurewei, Reno, USA, November 2019.
2. R1-2003189, Cleaned consolidated RRC parameters list for Rel-16 LTE, Moderator (Qualcomm), e-Meeting, April 2020, RAN1#100b-e.
3. R2-2004040, Miscellaneous corrections to 36.331 for Rel-16 NB-IoT, Huawei, HiSilicon, online, April, 2020, RAN2#109b-e.
4. R1-2004292 Higher layer parameter alignment issues in Rel-16 NB-IoT enhancement ZTE
5. R1-2004660 On L1 parameter name corrections for Rel-16 NB-IoT Ericsson
6. R1-2003795 Clarification of group WUS for NB-IoT ZTE
7. R1-2004164 Corrections on UE-group wake-up signal Huawei, HiSilicon
8. R1-2003536 Corrections on transmission in preconfigured UL resources Huawei, HiSilicon
9. R1-2003537 Corrections on scheduling of multiple DL/UL transport blocks Huawei, HiSilicon
10. R1-2003538 Corrections on coexistence of NB-IoT with NR Huawei, HiSilicon