**3GPP TSG RAN WG2 #124 *R2-23xxxxx***

**Chicago, USA, 13 – 17 Nov, 2023**

Source: Ericsson

Title: [Post123bis][307][NR-NTN Enh] 38.331 running CR (Ericsson)

Agenda Item: 7.6.1

Document for: Discussion and decision

# Introduction

This document captures the outcome of the following email discussion:

* [Post123bis][307][NR-NTN Enh] 38.331 running CR (Ericsson)

Scope: running CR update and list of open issues

Intended outcome:

* + - * + Endorsed running CR
        + List of open issues to be addressed by company Tdocs

Deadline: Medium

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| \*\*\* Detailed scope for all e-mail discussions on running CRs and open issues \*\*\*  1.     Update the running CR with agreements from the meeting  2.     Rapporteur to propose resolutions for straightforward open issues which can already be included in the running CR  3.     For Stage 3 running CRs, get input on stage-3 issues that require further input from companies to make a decision:   * Focus on stage-3 issues which are better handled via offline, e.g. signaling details, parameter values/ranges, NOT functionality discussion. For these issues, if any, the CR rapporteur should submit a separate report with proposals to the next meeting by the submission deadline, while input via company Tdocs should be avoided   4.     Identify the remaining open issues that need to be solved for WI completion in the next meeting:   * Company Tdocs for the next meeting should focus on these issues |

# 2 Open Issue List

During RAN2#123, the following agreement was taken for RACH-less handover:

* The mapping between type-1 CG and SSBs in CG-SDT can be the baseline of how to configure pre-allocated grant mapped to SSBs (can rediscuss in case of different input from RAN1).

Consequently, the CG-SDT configuration was taken as a baseline to implement the pre-allocated uplink grant (CG type 1) for RACH-less handover. While some parameters such as ssb-Subset or RSRP-ThesholdSSB have been discussed in RAN2, others such as DMRS-Ports needs further clarification.

Editor’s Note: FFS whether the definition of DMRS port configuration and DMRS sequence configuration for NTN RACH-less handover needs revision.

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| *CG-NTN-RACH-less-Configuration* field descriptions |
| ***ntn-DMRS-Ports***  Indicates the set of DMRS ports for SSB to PUSCH mapping (see TS 38.213 [13]). The first (left-most / most significant) bit corresponds to DMRS port 0, the second most significant bit corresponds to DMRS port 1, and so on. A bit set to 1 indicates that this DMRS port is used for mapping. |
| ***ntn-NrofDMRS-Sequences***  Indicates the number of DMRS sequences for SSB to PUSCH mapping (see TS 38.213 [13]). |
| ***ntn-SSB-Subset***  Indicates SSB subset for SSB to CG PUSCH mapping within one CG configuration. |
| ***ntn-SSB-PerCG-PUSCH***  The number of SSBs per pre-allocated uplink grant PUSCH (see TS 38.213 [13]). Value *one* corresponds to 1 SSBs per pre-allocated uplink grant PUSCH, value *two* corresponds to 2 SSBs per pre-allocated uplink grant PUSCH and so on. |
| ***ntn-RSRP-ThresholdSSB***  An RSRP threshold configured for SSB selection for the pre-allocated uplink grant as specified in TS 38.321 [3]. |

**Q1: Please share your views on whether DMRS port configuration and DMRS sequence configuration for RACH-less handover needs revision:**

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| **Company** | **Yes / No** | **Comments** |
| Ericsson | Yes | These parameters are within RAN1’s scope. |
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**Q2: Do you think anything essential for WI completion is missed? Note that unchanged PCI functionality is discussed in a separate offline (312). Please elaborate on the missing issues if any.**

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| **Company** | **Open issue** | **Comments** |
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# 3 Conclusion

To be completed