**3GPP TSG RAN WG1 #110bis-e R1-22NNNN**

**e-Meeting, October 10th – 19th, 2022**

**Agenda item:** 8.5

**Source:** Moderator (Ericsson)

**Title:** Summary for preparation phase on maintenance of Rel-17 WI on NR positioning enhancements

**Document for:** Discussion and Decision

## Introduction

This document captures the discussion on the identified maintenance issues on accuracy improvements for DL-AOD positioning solutions based on the preparation phase documented in R1-2210266, and triggered by the following chair decision:

[110bis-e-R17-ePos-04] Email discussion for maintenance on accuracy improvements for DL-AoD positioning solutions for issues 3-1, 3-2, 3-3 in R1-2210266 – Florent (Ericsson)

-          Check points: October 14, October 19

## Issues on NR positioning enhancements

## List of issues

**Table 1 - Accuracy improvements for DL-AoD positioning solutions**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Issue#** | **Description of the issue** | **References** | **FL initial assessment** | **Company inputs and FLs’ responses** |
| 3-1 | Correction on missing descriptions for timestamp of DL PRS-RSRPP  FL : align RAN1 specs with RAN2 specifications. | R1-2208601  R1-2210211 | H | [ZTE] We are OK to discuss the issue  [Nokia] Okay to discuss.  [CATT] OK to discuss the issue  [QC]: OK to discuss  [Ericsson] OK with the FL assessment. |
| 3-2 | Correction to the Rx beam reporting condition for DL-AoD  FL: RSRPP should support use of the same rx beam index | R1-2209837 | H | [ZTE] We support this draft CR. However, since this issue was discussed before, to avoid repeating discussion, we prefer to conclude this issue in this meeting.  [Nokia] Okay to discuss.  [CATT] OK to discuss the issue  [QC]: OK to discuss  [Ericsson] OK with the FL assessment. |
| 3.3 | Clarification of the limitation of 24 RSRP/RSRPP reports for AOD  FL: OK to discuss but not sure if the spec is broken without it. | R1-2210212 | H | [ZTE] We don’t think the change is needed. If we change it, all positioning methods such as TDOA, RTT should be clarified in TS 38.214 as well.  [Nokia] Okay to discuss.  **[**CATT] OK to discuss the issue.  [QC]: Not really see the to discuss this  [HW] As the proponent of the issue, we support to discuss it.  [Ericsson] OK with the FL assessment. |

## Issue 3-1 Correction on missing descriptions for timestamp of DL PRS-RSRPP

In [1] and [3] DL PRS RSRPP is added to the list of measurement which can include a time stamp, as well as to assistance data reference information, LOS/NLOS reporting, and multiple measurement insteance in a single report.

Please comment below on whether the CRs can be endorsed as is in a merged CR or potential changes needed:

|  |  |
| --- | --- |
| Company | comment |
|  |  |

## Issue 3-2 Correction to the Rx beam reporting condition for DL-AoD

In [2] the CR captures that 2 DL PRS RSRPP measurement can be, if reported, indicating thesame Rx beam index through *DL-PRS-RxBeamIndex*.

Please comment below on whether the CRs can be endorsed as is or potential changes needed:

|  |  |
| --- | --- |
| Company | comment |
|  |  |

## Issue 3-3 Clarification of the limitation of 24 RSRP/RSRPP reports for AOD

In [4], it is clarified that the number of RSRP/RSRPP measurements limit of 24 only applies to DL AOD.

Please comment below on whether the CR can be endorsed as is or potential changes needed:

|  |  |
| --- | --- |
| Company | comment |
|  |  |

## Conclusion

## References

1. R1-2208601, Correction on missing of DL PRS-RSRPP, vivo
2. R1-2209837, Correction to the Rx beam reporting condition for DL-AoD, Huawei, HiSilicon
3. R1-2210211, Adding DL PRS-RSRPP to the applicable measurements, Huawei, HiSilicon
4. R1-2210212 Correction to the applied positioning method for RSRP and RSRPP reporting. Huawei, HiSilicon