3GPP TSG-RAN WG2 #119bis-e R2-22xxxxx

Online Meeting, Oct 10th – 19th, 2022

Agenda Item: 6.11.2.5

Source: Ericsson

Title: [AT119bis-e][419][POS] PRS capability information (Ericsson)

Document for: Discussion, Decision

# Introduction

This document is to gather input for below email discussion.

* [AT119bis-e][419][POS] PRS capability information (Ericsson)

Scope: Check and update the CR in R2-2210310.

Intended outcome: Agreeable CR

Deadline: Friday 2022-10-14 1000 UTC

[1] R2-2210310 Correcting PRS capability information reported to gNB Ericsson

# Contact Information

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# Discussion

Based upon online discussion, the revised CR has been provided [here](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_119bis-e/Inbox/Drafts/%5BOffline-419%5D%5BPOS%5D%20PRS%20capability%20information%20(Ericsson)/draft_CR/draft_R2-2210310_capabilityCR.docx)

Question 1: Do companies agree with the changes

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| Company | Yes/No | Comments |
| Lenovo | Yes but | To be aligned with the description in TS 38.133 V17.7.0 (2022-09), clause 9.9.1.2 (see below) it may be better to say „containing PRS“ instead of „for PRS measurements“.  „Indicates whether the UE supports using the maximum Rx timing difference threshold to compare against with the Rx timing difference between the serving cell and a neighbor cell/TRP for PRS measurements to determine whether the PRS from the non-serving cell satisfy the condition of PRS measurement outside MG.“  TS 38.133 V17.7.0 (2022-09), clause 9.9.1.2:  max∣ΔT∣≤ THR, where  ∆T is the time difference between the start of a slot containing PRS from the neighbor cell/TRP and the start of the closest slot from the serving cell;  the range of ∆T is determined by the expected RSTD and expected RSTD uncertainty in the assistance data;  THR is the threshold as reported in UE capability [TBD]. |
| Intel | No strong opinion | Should not RAN4 specification is clear enough? |
| CATT | Yes | It seems that the wording proposed by Lenovo is clearer. |
| Ericson | Yes | Fine with Lenovo’s suggestion. Since we already in the end of sentence say that it is for PRS measurements as shown below and to align with RAN4.  „Indicates whether the UE supports using the maximum Rx timing difference threshold to compare against with the Rx timing difference between the serving cell and a neighbor cell/TRP for PRS measurements to determine whether the PRS from the non-serving cell satisfy the condition of PRS measurement outside MG.“ |
| Nokia | Yes, but see comments | Not sure if replacing “for PRS measurements” with “containing PRS” would work as that verbiage comes with a specific phrasing in the TS 38.133. Instead, it is better to provide a reference to the description in 38.133 for an explanation of what this threshold capability is rather than describe it in our specification. We suggest the following TP:  ***prs-MeasurementWithoutMG-r17***  Indicates whether the UE supports using the threshold to compare the time difference between the serving cell and a neighbor cell/TRP for PRS measurements, as defined in TS 38.133 [xx], clause 9.9.1.2, to determine whether the PRS from the non-serving cell satisfy the condition of PRS measurement outside MG. The UE can include this field only if the UE supports one of *prs-ProcessingWindowType1A-r17, prs-ProcessingWindowType1B-r17* and *prs-ProcessingWindowType2-r17*.  Note that this UE capability not only indicates support for PRS measurement without MG but also the threshold value used i.e., cpLength, quarterSymbol, halfSymbol, halfSlot.  We also suggest that the reason for change in CR cover be updated to provide a better justification by quoting the 38.133. Something like: “The description of capability prs-MeasurementWithoutMG-r17 is unclear. The usage of this capability is described in 38.133, clause 9.9.1.2, which can be referenced to clarify this capability”.  Also, the Impacted functionality in CR cover can say “PRS measurement capability (RSTD, PRS-RSRP, UE Rx-Tx time difference, and PRS-RSRPP measurement without measurement gaps)” |
| Qualcomm | Yes | O.K. with the clean-up from Lenovo and Nokia. Support adding a reference to 38.133, which should remove any lack of clarity. |
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# Conclusion

Based on the discussion in section 2 we propose the following:

# References

[1] AI 6.11.2.5