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

Online Meeting, Aug 17th – 29th, 2022

Agenda Item: 6.11.1

Source: Ericsson

Title: [AT119-e][411][POS] Rel-17 positioning RRC (Ericsson)

Document for: Discussion, Decision

# Introduction

This document is to gather input for below email discussion.

* [AT119-e][411][POS] Rel-17 positioning RRC (Ericsson)

      Scope: Check and update the rapporteur CR in R2-2208076 to take account of decisions of this meeting.  Evaluate the proposals in the following tdocs:

* R2-2207411
* R2-2207881

      Summary discussion document in R2-2208710 can be taken into account.

      Intended outcome: Agreeable CR

      Deadline: Tuesday 2022-08-23 1200 UTC

The below papers have been submitted for positioning correction which impacts RRC

1. R2-2207881 “Correction for inactivePosSRS-TAT upon transitioning to RRC\_CONNECTED” Huawei,HiSilicon
2. R2-2208076 “Miscellaneous correction for Positioning”, Ericsson, Nokia, Nokia Shanghai Bell
3. R2-2207411 “Change request about PPW configuration” vivo, Ericsson

# Contact Information

|  |  |
| --- | --- |
| Company | Contact: Name (E-mail) |
| Huawei, HiSilicon | YinghaoGuo (yinghaoguo@huawei.com) |
| ZTE | Yu Pan(pan.yu24@zte.com.cn) |
| CATT | Jianxiang Li (lijianxiang@catt.cn) |
| NEC | wen\_jinhui@nec.com |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

# Discussion

## R2-2207881 Correction for inactivePosSRS-TAT upon transitioning to RRC\_CONNECTED

The CR in R2-2207881 mentions that the UE shall stop the RRC Inactive Positioning SRS Time alignment Timer like CG-SDT when RRC setup/resume msg is received:

For CG-SDT, as specified in 5.3.3.4, UE shall perform the following actions upon reception of the *RRCSetup*:

1> if the *RRCSetup* is received in response to an *RRCReestablishmentRequest*; or

1> if the *RRCSetup* is received in response to an *RRCResumeRequest* or *RRCResumeRequest1*:

2> if *sdt-MAC-PHY-CG-Config* is configured:

3> instruct the MAC entity to stop the *cg-SDT-TimeAlignmentTimer*, if it is running;

The SRS Positioning for Inactive mode is valid only for RRC Inactive mode. If the UE receives RRC setup/resume this implies that the UE is switching to RRC Connected mode.

In positioning session, it was agreed to follow CG-SDT mechanism for SRS for positioning config in RRC Inactivate. Considering this also the same behaviour as defined for CG SDT TAT should be applied also for SRS for Positioning TAT.

1. CR in R2-2207881 to instruct to MAC layer to stop *inactivePosSRS-TimeAlignmentTimer* upon receiving RRC Setup/Resume is agreed to be merged into the rapporteur CR

Question 1: Do companies agree with the Proposal 1

|  |  |  |
| --- | --- | --- |
| Company | Yes/No | Comments |
| Huawei, HiSilicon | Yes |  |
| vivo | Yes |  |
| Intel | Yes | Looks reasonable. |
| Xiaomi | Yes |  |
| ZTE | Yes |  |
| CATT | Yes |  |
| NEC | Yes |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

## R2-2208076 Miscellaneous correction for Positioning

The CR adds TS 38.305 as a reference as the definition of UE TxTEGID needs to be cited from TS 38.305.

Further, it consolidates the clause in section 5.7.17 “Derivation of pathloss reference for TA validation of SRS for Positioning transmission and CG-SDT in RRC\_INACTIVE” that is mainly polishing the content.

1. CR in R2-2208076 to add TS 38.305 reference and to consolidate the clause in section 5.7.17 is agreed to be merged into the rapporteur CR

Question 2: Do companies agree with the Proposal 2

|  |  |  |
| --- | --- | --- |
| Company | Yes/No | Comments |
| Huawei,HiSilicon | Yes |  |
| vivo | Yes |  |
| Intel | Yes |  |
| Xiaomi | Yes |  |
| ZTE | Yes |  |
| CATT | Yes |  |
| NEC | Yes |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

## R2-2207411 “Change request about PPW configuration”

The CR provides correction to the parameter “maxNrofPPW-Config-r17”.

*From*

Maximum number of activated PRS processing windows across all active DL

*To*

Maximum number of Preconfigured PRS processing windows per BWP

Since, *DL-PRS-ProcessingWindowPreConfigAddModList-r17*’ and ‘*DL-PRS-ProcessingWindowPreConfigReleaseList-r17*’ are defined per BWP-DownlinkDedicated.

So then ‘*maxNrofPPW-Config-r17*’ is the maximum number of PPW configurations per DL BWP rather than the maximum number of activated PRS processing windows across all active DL BWPs.

1. CR in R2-2207411 to correct definition of maxNrofPPW-Config-r17 as Maximum number of Preconfigured PRS processing windows per BWP is agreed to be merged into the rapporteur CR.

Question 3: Do companies agree with the Proposal 3

|  |  |  |
| --- | --- | --- |
| Company | Yes/No | Comments |
| Huawei, HiSilicon | Yes | The previous description for the constant is wrong |
| vivo | Yes |  |
| Intel | Yes |  |
| Xiaomi | Yes |  |
| ZTE | Yes |  |
| CATT | Yes |  |
| NEC | Yes with comment | As the RAN1 agreement made below (in RAN1 #108-e), we think it’s more accurate to use per DL BWP instead of per BWP here.  •The maximum number of preconfigured PRS processing window per DL BWP is 4. |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

# Conclusion

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

# References

[1] AI 6.11