3GPP TSG-RAN WG2 Meeting#113-e Draft\_R2-201xxxx

Online, 25th Jan. - 5th Feb. 2021

Agenda Item: x.x.x.x

Source: Huawei

Title: [Draft] Summary of email discussion [351] (N)RSRP reference for TA validation for PUR

Document for: Discussion and Decision

# Introduction

In RAN2#112-e, the following CR on the (N)RSRP reference for the first TA validation for PUR was discussed in offline [AT112-e][304].

[R2-2009730](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_112-e/Docs/R2-2009730.zip) Clarification on the reference (N)RSRP for the first TA validation for PUR Huawei, HiSilicon CR Rel-16 36.331 16.2.1 4480 - F NB\_IOTenh3-Core, LTE\_eMTC5-Core

- QC thinks the added description is clear from the procedure text. Huawei and Ericsson think the clarification is useful for the first TA validation. Ericsson thinks the wording could be improved.

* Postponed
* [AT112-e][304][NBIOT/eMTC R16] Clarification on the reference (N)RSRP for the first TA validation for PUR (Huawei)

 Scope: Improve the wording of the change.

 Intended outcome: Agreed CR in R2-2010909

 Deadline: Tuesday 10th 1200 UTC

* Rapporteur reports there are different understandings and suggests an email discussion.
* QC agrees with this summary and think we should ensure a common understanding.

During the offline discussion, 4 cases were raised for the potential (N)RSRP reference update but there was no consensus on whether (N)RSRP reference should be updated in all the 4 cases. The following email discussion was assigned to further discuss the 4 cases and try to reach a common understanding:

* [Post112-e][351][NBIOT/eMTC R16] (N)RSRP reference for the TA validation for PUR (Huawei)

 Scope: To come to common understanding of the different cases

 Intended outcome: Report and possibly CR to the next meeting

 Deadline: Tuesday Jan 12 1100 UTC

# Discussion

For (N)RSRP based TA validation in PUR, whether TA should be considered as (re-)validated and the (N)RSRP reference should be updated in the following cases was discussed but there was no consensus:

* Case 1: Upon reception of RRC release message including pur-Config(-NB) in RRC\_CONNECTED mode;
* Case 2: Upon reception of RRC release message in response to uplink transmission using PUR;
* Case 3: Upon reception of Timing Advance Command MAC CE;
* Case 4: Upon reception of (N)PDCCH indicates timing advance adjustment as specified in TS 36.212.

For each case, companies are invited to provide comments on whether TA should be considered as (re-)validated and the (N)RSRP reference should be updated. Based on the reply, companies are further invited to comment if anything needs to be clarified in the specification.

**Case 1: Upon reception of RRC release message including pur-Config(-NB) in RRC\_CONNECTED mode**

**Question 1a.** For case 1, do you think TA should be considered as (re-)validated and the (N)RSRP reference updated? If yes, please also indicate whether it depends on the following cases raised in the offline discussion:

* whether it depends on pur-Config explicitly included (need ON)
* whether it depends on what is included in pur-Config. e,g, pur-RSRP-ChangeThreshold-r16 (Need ON) and/or pur-TimeAlignmentTimer-r16 (Need OR)

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| ***Company name*** | ***Opinion*** | ***Comments*** |
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**Question 1b.** According to your reply to Question 1a, for case 1, is there anything to be clarified in current specification?

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**Case 2: Upon reception of RRC release message in response to uplink transmission using PUR**

**Question 2a.** For case 2, do you think TA should be considered as (re-)validated and the (N)RSRP reference updated?

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| ***Company name*** | ***Opinion*** | ***Comments*** |
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**Question 2b.** According to your reply to Question 2a, for case 2, is there anything to be clarified in current specification?

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**Case 3: Upon reception of Timing Advance Command MAC CE**

**Question 3a.** For case 3, do you think TA should be considered as (re-)validated and the (N)RSRP reference updated?

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**Question 3b.** According to your reply to Question 3a, for case 3, is there anything to be clarified in current specification?

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**Case 4: Upon reception of (N)PDCCH indicates timing advance adjustment as specified in TS 36.212**

**Question 4a.** For case 4, do you think TA should be considered as (re-)validated and the (N)RSRP reference be updated?

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**Question 4b.** According to your reply to Question 4a, for case 4, is there anything to be clarified in current specification?

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**Other clarification needed in the specification**

**Question 5** Regarding TA validation and (N)RSRP reference update, apart from the changes commented in above questions for the 4 cases, is there any other change needed in current specification?

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| ***Company name*** | ***Opinion*** | ***Comments*** |
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# Conclusion

This offline discussion focused on (N)RSRP based TA validation and (N)RSRP reference update for PUR:

**TBD**

# References

# Contact delegates

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| --- | --- | --- |
| **Delegate** | **Company name** | **Email** |
| Baokun Shan | Huawei, HiSilicon | baokun.shan@huawei.com |
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