Final summary for [92-e-13-ePos-WI]
Variant of [92-e-13-ePos-WI] Version 0.0.2
RAN

3GPP TSG-RAN Meeting#92e

Electronic Meeting, June14 – 18, 2021

RP-211549

Agenda Item: 9.7.1.6

Source: Moderator (Ericsson)

Document for: Discussion, Decision

1 Introduction

There were two input documents ([1][2]) submitted to RAN#92e seeking clarification on the highlighted part of the following objective marked as second priority in the latest WID for the positioning enhancements work item in Rel-17.

- Specify methods, measurements, signalling and procedures to support positioning for UEs in RRC_INACTIVE state, for UE-based and UE-assisted positioning solutions, including [RAN2, RAN1, RAN3,RAN4]:
  - DL NR positioning methods and RAT-independent positioning methods
    - Support of UE positioning measurements for UEs in RRC_INACTIVE state
    - Reporting of positioning measurement or location estimate performed in RRC_INACTIVE when the UE is in RRC_INACTIVE state

    Note: this work will be coordinated with the SDT WI.
  - As 2nd priority:
    - UL and DL+UL NR positioning methods
    - Support of gNB positioning measurements for UEs in RRC_INACTIVE state

Figure 1: WID extract highlighting second priority items under discussion

This goal of this email discussion is to discuss the inputs in [1] and [2] and determine if the above 2nd priority objectives need further clarifications.

2 Discussion - Initial Round

The following was proposed in [1]:

RAN is kindly requested to provide guidance on handling of second priority objectives in work items and is

kindly requested to take into account that second priority objectives for work items be initiated only after a stable stage 2 running CR for the other high priority objectives is endorsed first.

The following was proposed in [2]:

RAN to discuss possible alternatives to clarify the objective on support of UL / DL +UL positioning by RRC_INACTIVE UEs in Rel.17 and provide guidance to RAN WGs through an update of WID.

In addition the following alternatives were suggested in [2]:

Alt. 1: Remove the notion of the "2nd priority" for UL/DL+UL positioning support by RRC_INACTIVE UEs

Alt. 2: Clarify the timeline when objective is expected to be discussed.

Alt. 3: Clarify the objective with removing labelling of "2nd priority"

It was also suggested that if Alt. 2 is chosen, it can be recommended to treat this objective at the next WG meetings (i.e. RAN1#106-e and RAN2#115-e).

The two input contributions seem to be suggesting alternatives in somewhat opposite directions. Based on the inputs, it would be useful for the initial discussion to get inputs on the following question outlining some alternatives.

Q1: Which of the following alternatives do you support on the 2nd priority aspects for positioning of UEs in RRC_INACTIVE state, i.e., UL and DL+UL NR positioning methods and support of gNB positioning measurements for UEs in RRC_INACTIVE state.

Alt. 1: Provide clarification with an agreement in RAN that no work on the above second priority aspects should be performed in the working groups until work has been completed on other high priority aspects first. Endorse an agreement in RAN#92e to provide such guidance.

Alt. 2: Provide clarification with an agreement in RAN that work on the above second priority aspects can be performed in the working groups from the next working group meeting. Endorse an agreement in RAN#92e to provide such guidance

Alt. 3: Make the above second priority aspects high priority by removing the designation of these as "2nd priority" and make them the same priority as other high priority aspects. Update the WID to reflect this (If a subset of the functionalities should be made high priority, please state which functionalities).

Alt. 4: Leave it to the working groups to determine how to handle 2nd priority aspects. Make no changes to the WID and no further endorsements in RAN#92e.

Alt. 5: Other. Please describe if you have an alternate proposal.

Please provide your inputs on the above question in the feedback form below.

Feedback Form 1: Feedback on Q1

1 – Nokia Corporation

We support Alt. 1. There is still lots of work remaining for the priority objectives in different RAN WGs. Furthermore, overall RAN workload is high as already discussed in Monday's RAN#92 GTW and there is need to down-scope Rel-17 WIs to enable successful and timely Rel-17 specifications completion.

2 – vivo Mobile Communication Co.

We are supportive of Alt2 or Alt3. Alt3 is our first preference.

3 – Guangdong OPPO Mobile Telecom.

We support Alt.4 since the wording "second priority" has provide sufficent information and WGs can deal with the associated objective accordingly.

4 – Ericsson Inc.

We support Alt 1. the work item objectives were agreed with two levels of priorities, and priority 1 items have not been completed.

5 – CATT

Our preference is Alt.3 due to: a) easier to manage the time/effort spent on WI objectives (no need for us to specially discuss how much time/effort should be spent on UL/DL+UL positioning by RRC_INACTIVE UEs for each meeting) and b) the importance of the enhancement (many companies have shown their interests in that objective from the contributions in the previous WG meetings).

6 – Apple France

Our first priority is Alt1 where we share similar views as Nokia and Ericsson. Our second priority is Alt4.

7 – InterDigital Communications

Our preference is Alt. 3 and we prefer to focus on SRS aspect only to be more efficient. Thus, we suggest to update the WID as following:

- ~~As 2nd priority:~~
  - UL and DL+UL NR positioning methods
  - Support transmission of SRS for positioning purpose in RRC_INACTIVE state
  - Support of gNB positioning measurements for UEs in RRC_INACTIVE state

8 – Futurewei Technologies

Our preference is similar to InterDigital, by removing the designation of ”2nd priority” and clarifying the support of SRS.

We can also accept Alt. 4, i.e., leave its handling to WGs, as other 2nd priority items (in other WIs).

9 – ZTE Corporation

Our preference is Alt.1. We share the same view with Nokia, Ericsson and Apple. DL should be completed first. We also can accept Alt4.

10 – Samsung Research America

we think alt.4 is enough.

the ”2nd priority” could speak for itself. Different WG may have different load/schedule for the issue, it can decide whether to proceed if the overall progress is ready to do it or not.

11 – Qualcomm CDMA Technologies

We think Alt. 4 is sufficient. The WGs should be in the best position to judge what should be discussed; e.g., based on available time, input contributions, synergies/overlap with other/similar items, etc. It may not always be sensible to handle items (which somewhat belong together) strictly in series.

12 – MediaTek Inc.

Alt3 is not OK. We prefer Alt.4 . Generally we need NOT formalize the handling of 2nd priority items. By definition, all WI objectives are intended to be fulfilled during the lifetime of the WI whether first or second priority, The ”priority” indication provides guidance to the Leadership and Rapporteur to plan the work and secure timely progress bearing in mind said indication, potential dependencies between items, and workload.
If a WI downscope is needed, then a WI revision ought to be discussed to explicitly remove objectives (or parts thereof) as opposed to leaving those in the WI.

13 – Beijing Xiaomi Mobile Software

Work on 2nd priority items should not come at the cost of progress on higher priority items, however Alt 4 is sufficient.

2nd priority is a long held principle in 3GPP, WGs working on 2nd priority items know that this can only be when suitable time is available after handling of high priority items.

14 – LG Electronics Inc.

Considering on work load for positioning of UE in inactive state, we prefer Alt.1.

Also, after work for DL positioning is completed, discussion for UL and DL+UL positioning methods can be continued if time is available. In this aspect, Alt.4 can be acceptable.

15 – HUAWEI TECHNOLOGIES Co. Ltd.

[Huawei, HiSilicon] Alternative 1 was not proposed by any papers sumbitted to RAN plenary #92, and has been kindly added by the moderator and ... surprise ! .... supported by (some of the) companies that did not want the objective that we are discussing in the first place. So this Alternative 1 is not acceptable. We support Alt. 2 or Alt. 3, but we can leave with Alt.4

16 – Ericsson LM

Moderator's clarification: The moderator's intention was to align Alt. 1 to the proposal in [1] which suggested that "RAN is kindly requested to provide guidance on handling of second priority objectives in work item and is kindly requested to take into account that second priority objectives for work items be initiated only after a stable stage 2 running CR for the other high priority objectives is endorsed first." The rephrasing was motivated by the fact that running CRs are not always used in all working groups. In any case, the alternatives covered the spectrum of options and the inputs in the initial round have served to clarify the situation.

3 Discussion - Intermediate Round

After the initial round of discussion, the situation is as follows:

- Five companies support Alt. 1

- Two companies support or are ok with Alt. 2

- Five companies support or are ok with Alt. 3

- Five companies support Alt. 4 as a preference and an additional five companies can accept Alt. 4

As noted earlier, Alt. 1 was in line with the discussion and proposal in [1] and Alt. 2 and 3 were inline with the discussion and proposal in [2]. It is also notable, that there were supporters of Alt. 1 and Alt. 2/3 that were able to accept Alt. 4.

As noted by one of the responses to the initial round, there is precedence for having second priority objectives. Hence, it should well understood that these objectives can be worked on as long as they don't impact any higher priority items. Also, as noted in one of the responses, different WGs may have different loads or schedules. Hence, flexibility needs to be allowed for working groups to handle second priority items.

Given the above, it is not clear that there is much chance of consensus for any agreement to update the WID. The only possibility may be to have an agreement in RAN that handling of second priority items should not impact the completion of higher priority items. But, this should be fairly obvious and making new agreements on what should be clear is not productive. Therefore, the moderator's suggestion is to not take any further action, i.e., choose Alt. 4.

Moderator's proposal:

Leave it to the working groups to determine how to handle 2nd priority aspects. Make no changes to the WID and no further endorsements in RAN#92e.

Please provide any comments or alternate suggestions you may have on the above proposal in the form below.

Feedback Form 2: Feedback on Moderator Proposal

1 – HUAWEI TECHNOLOGIES Co. Ltd.

[Huawei, HiSilicon] Fair summary and fair proposal

2 – InterDigital Communications

We are ok with moderator's proposal as it seems to be difficult to reach a consensus on any of the alternatives to update the WID

3 – vivo Mobile Communication Co.

Thanks Havish for the effort. Support Havish's observation and proposal.

4 – ZTE Corporation

We are ok with Moderator's proposal. Thanks for the effort.

5 – CATT

We are fine with Moderator's proposal. Thanks Havish for the effort.

6 – Apple France

We are fine with the Moderator's proposal

7 – MediaTek Inc.

Thank you Havish/Ericsson for the discussion, summary and resulting proposal. We support the summary and proposal.

8 – Qualcomm CDMA Technologies

Thanks for the summary and discussion. We support the proposal.

9 – Intel Corporation (UK) Ltd

[Intel Corporation] Thank you for discussion and summary. In our view, Alt.4 is not the best way forward from the perspective of work management and efforts of delegates during the summer time and remaining time for WI completion. If companies agree that it is the maximum that can be achieved at this meeting, we can accept it. At the same time, going forward we encourage companies to focus on technical discussion to complete all the work including the 2nd priority objective in R17 rather than continue debate on objective priority level and/or completion level of other objectives.

10 – Nokia Corporation

We can accept moderator's summary but we would like to note that in the recent RAN2 meeting the following earlier RAN guidance was not followed: second priority items should not impact the completion of higher priority items. We truly hope that the RAN WG and session chairs will follow the agreed priorities in the future meetings.

11 – Guangdong OPPO Mobile Telecom. Thanks for the summary and discussion. We support the proposal.
12 – Beijing Xiaomi Mobile Software we agree with comments above in that the summary is accurate and the proposal pragmatic. We support the proposal.
13 – LG Electronics Inc. We are fine with Moderator's proposal. Thanks for the effort.

4 Conclusions

Two input documents ([1][2]) submitted to RAN#92e sought clarification on 2nd priority aspects for positioning of UEs in RRC_INACTIVE state, i.e., UL and DL+UL NR positioning methods and support of gNB positioning measurements for UEs in RRC_INACTIVE state. These aspects were discussed as part of this email discussion and it was concluded to leave it to the working groups to determine how to handle 2nd priority aspects and that no further changes to the WID and no further endorsements in RAN#92e need to be made.

5 References

[1] RP-211201, "Discussion on priorities of work item objectives", Nokia, Nokia Shanghai Bell, TSG RAN#92e, 14-18 June 2021.

[2] RP-211308, "On support of UL/DL+UL positioning by RRC_INACTIVE UEs", Intel Corporation, TSG RAN#92e, 14-18 June 2021.

[3] RP-210903, "Revised WID on NR Positioning Enhancements", Intel Corporation, CATT, Ericsson, March 2021