**3GPP TSG RAN Meeting #89-e RP-** **202003**

**Electronic Meeting, September 14-18, 2020**

**Source: CATT**

**Title: Moderator's summary for email discussion [89E][25][R17\_positioning\_scope] Initial Round**

**Agenda item: 9.7.3**

**Document for: Discussion and Decision**

# Introduction

This document provides a summary of the following email discussion:

🖂[[89E][25][R17\_positioning\_scope] Initial round

Goal: Find a way forward on the proposed scope revision

Input contributions covered:  1960, 1959

Moderator: Ren Da

Background

In RAN2#111e, RAN2 has concluded that [2]

* The error source for RAT-dependent positioning methods should be studied under RAN1.

However, according to the current SI scope [1], only RAN2 is responsible for the investigation of the solutions necessary to supportpositioning integrity. Thus, we may have the following two options to handle RAN2’s conclusion, e.g.,

* Option 1: Increase the SI scope of RAN1 to include the study of error sources for RAT-dependent positioning methods for integrity solutions
* Option 2: Reduce the SI scope of RAN2 to exclude the study of integrity solutions for RAT-dependent positioning methods

Based on the consideration of the SI progressing status, especially the working status in RAN1, the proposal from the SI Rapporteurs (CATT, Intel) is as follows [3]:

**Proposal 1:**

* **Reduce the scope of the SI “Study on NR Positioning Enhancements” by excluding the study of integrity solutions for RAT-dependent positioning methods.**

# Initial Round Discussion

The feedbacks from interested companies on **Proposal 1** are included in the following table:

|  |  |
| --- | --- |
| **Company** | **Views** |
| Futurewei | Though only RAN2 is listed as responsible for this objective, normal procedure allows to request input from RAN1 by LS. As an LS was already sent to RAN1, we may want to give RAN1 a chance to respond before making decision now.  While we share the concern that RAN1’s involvement may not be trivial on this aspect, we also find it a bit weird for 3GPP to specify integrity for RAT-independent (non-3GPP) techniques, but not its own RAT dependent ones.  We may need some more studies in RAN2 on what’s feasible to be done in this release and if it is still worth doing. |
| OPPO | We are supportive of this proposal. RAN1 is fully loaded with current work and has no space for any new task. Moreover, the functionality of integrity for RAT-dependent positioning methods is a new topic for 3GPP and RAN1 does not have any experience so far. Considering there is only 1 meeting left for this SI, we don’t think RAN1 can do a throughout and solid study for such a new functionality. |
| ZTE | We support the proposal from moderator. Based on the current discussion in RAN2, the definition and KPIs about positioning integrity are all for GNSS. We cannot find any application scenario for integrity in RAT-dependent positioning. In addition, if we want to introduce integrity for RAT-dependent positioning, we expect it will require large amount of discussion time in both RAN1 and RAN2, which is undesirable given the TU limit of the positioning SI.  Hence to remove RAT-dependent positioning in the scope of Rel-17 integrity study is a good idea. |
| Nokia | We support the proposal. We can support the proposal on the grounds that we need to be reducing scope to manage the workload, and it is fine to do only RAT-independent integrity in Rel-17. |
| Qualcomm | We support the proposal to keep only RAT-independent integrity in Rel-17. Furthermore, RAT-independent integrity should be restricted to GNSS (and should not include WLAN, BT, etc.), which should already be the common understanding. |
| Ericsson | We support the downscoping. We understood that integrity solutions for RAT dependent positioning had lower priority already from the start. Since resources in RAN1 are very limited, removing this objective seems feasible. |
| Deutsche Telekom | We agree with Futurewei: Before making such a decision, we should give RAN1 a chance to reply what is feasible and what is not. Further we expect that integrity for RAT-independent is prioritized to GNSS over WLAN and BT (if supported at all - see Peter Gaal's comment / I am not sure what is "common sense" here). We also agree with Futurewei that RAT-dependent is needed in 3GPP. |
| vivo | Support the proposal from the moderator. We share similar understanding that RAT-independent integrity is the major focus of interest under current situation. |
| Philips | We don't support the proposal to reduce the scope. Accurate positioning is an important topic for many verticals. The integrity/reliability of the positioning data is an essential aspect of the work. That is also why this topic was added to the release 17 study item last December. We don't see sufficient reason to reduce the scope of the work after 1 single meeting. |
| Huawei, HiSilicon | We support the proposal from the rapporteurs, this will help to complete everything else which is in the scope in Rel-17, and we can look at the leftover in the next Release for example. |
| Lenovo/Motorola Mobility | We support the proposal from moderator. Given the time limitation in the completion of the work with many issues, this left over topic can be treated in the future releases. |
| Xiaomi | We support the proposal from the rapporteurs to only study the RAT-independent integrity in Rel-17. According to the first meeting in RAN2, the error sources of RAT-dependent integrity need to be studied in RAN1 but the resources in RAN1 is limited. Moreover, the integrity is not the RAN1 objective in SID. |

Moderator's Comments

Based on the feedbacks, the majority companies (CATT, Intel, OPPO, ZTE, Nokia, Qualcomm, Ericsson, vivo, Huawei, HiSilicon, Lenovo/Motorola Mobility, Xiaomi) support the proposal to reduce the SI scope to exclude “the study of integrity solutions for RAT-dependent positioning methods”. It is clear that they share the similar view that it is not practical to complete the investigation of the RAT-dependent integrity in this SI, due to the limitation of the time and resources in RAN1.

But there are also a few companies (Futurewei, Deutsche Telekom, Philips) prefer to keep “the study of integrity solutions for RAT-dependent positioning methods” in the SI scope, which implies there is need to increase of the SI scope for RAN1.

* For Futurewei and Deutsche Telekom’s comments to “give RAN1 a chance” to discuss the issue and provide a response, our understanding is that we are expecting an extremely heavy workload meeting in RAN1 for the next meeting to complete the SI, and is unlikely to allocate the time and resource to study the error source for RAT-dependent positioning methods, which is currently not in the scope of RAN1 work, and that “may not be trivial” as Futurewei also acknowledged;
* For Futurewei, Deutsche Telekom and Philips’s comments on the importance of “the integrity for RAT-dependent” to 3GPP, our understanding is that no company consider “the integrity for RAT-dependent” is not important. The issue here is simply there is not enough resource for the investigation in this SI. Our understanding is that the issue can be further investigated in the future releases.

Based on the feedback of the initial round email discussion, the suggestion from the moderator is to keep original proposal unchanged.

# Intermediate Summary

Based on the feedbacks of the initial round email discussion, we suggest keep original proposal unchanged, i.e.,

**Proposal 1:**

* **Reduce the scope of the SI “Study on NR Positioning Enhancements” by excluding the study of integrity solutions for RAT-dependent positioning methods.**

# References

1. RP-200928, “Revised SID: Study on NR Positioning Enhancements”, CATT, Intel Corporation
2. RP-201440, LS on the error source for RAT-dependent positioning, RAN2
3. RP‑201960, “Discussion of the SI scope for Study on NR positioning enhancements”, CATT, Intel
4. RP‑201959, “Revised SID: Study on NR positioning enhancements”, CATT, Intel