3GPP TSG-RAN WG2 Meeting #111 Electronic R2-20xxxxx

Elbonia, 17 – 28 August 2020

**Agenda item: 4.4**

**Source: Nokia**

**Title: Summary of [AT111-e][601][POS] UE E-CID measurement reporting in LTE Rel-15 (Nokia)**

**Document for: Discussion and Decision**

# 1 Introduction

This is to provide a summary for the following email discussion:

* [AT111-e][601][POS] UE E-CID measurement reporting in LTE Rel-15 (Nokia)

      Scope: Discuss the CR in R2-2008051 and determine if it is agreeable.

      Intended outcome: Agreed CR

      Deadline:  Wednesday 2020-08-19 1000 UTC

# 2 Summary

Companies are invited to review the CR in [1] and provide their views whether they agree with the CR or not. Please add comments to elaborate on your decision, the earliest possible LTE release to which this CR can be applied and whether or not the same change should be made to NR TS 38.305 also. If you would like to update the text proposal in [1] please comment about that also in the table below or make edits to a copy of the CR in the offline discussion folder itself.

|  |  |  |
| --- | --- | --- |
| Company | Agree / Not Agree | Comments |
| Huawei, HiSilicon | Agree | We are generally fine with the correction. We would like to have a clarification on the CR though. With the current correction, when the gNB does not configure RRM measurement and the LMF requests a RRM measurement, is it mandaoty for the gNB to configure the RRM measurement or the gNB can return a measurement failure in the NRPPa? |
| CATT | Partial agree  | 1. The corrections of section 8.3.3.3.1 make sense and look good.
2. However we share the different view on the Reason for change in cover sheet for the corrections of Section 4.3.3. The UE should not be required to take **additional** **measurement** for the uplink E-CID positioning per our understanding on LTE E-CID positioning.
3. So the corrections of section 4.3.3 are not necessary according to the understanding of UE measurement for E-CID.
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| Qualcomm | Not Agree | The description:“Although E-CID positioning may utilise some of the same measurements as the measurement control system in the RRC protocol, the UE generally is not expected to make additional measurements for the sole purpose of positioning; i.e., the positioning procedures do not supply a measurement configuration or measurement control message, and the UE reports the measurements that it has available rather than being required to take additional measurement actions.“seems applicable to both, DL and UL ECID. Also for UL ECID, the UE generally is not expected to make additional measurements for the sole purpose of positioning. Indeed, for UL E-CID the UE is generally making measurements for RRM and is not aware that the measurements are made for the purpose of positioning. The UE has of course follow any RRC measurement configuration, however, the UE is generally making the measurements for the purpose of e.g. RRM. Further, the description cited above is generally true, but not always. I.e., for the E-CID measurement UE Rx-Tx Time Difference, RAN4 defined minimum performance requirements and test cases which indeed requires the UE to make additional measurements for the sole purpose of positioning. My interpretation of the phrase “the UE generally is not expected” is that the UE is “typically” or “usually” not expected to make additional measurements, but there are exceptions (i.e., the E-CID requirements and test cases defined in RAN4/RAN5).This exception exists also for UL ECID. The LPP capability indicates:“If the UE Rx-Tx time difference measurement is supported by the target device (i.e., *ueRxTxSup* field is set to one), it means that the UE supports the UE Rx-Tx time difference measurement reporting via both LPP signaling and RRC signalling.If a target device doesn't support LPP, the E-SMLC may assume the target device can not report the UE Rx-Tx time difference measurement results via RRC signalling.”Therefore, if the UE receives an RRC Measurement Configuration for UE Rx-Tx time difference measurement, the UE may indeed perform “additional measurements for the sole purpose of positioning”. |
| Intel | Do not see the need | We agree with Qualcomm’s understanding, i.e. if the RRM measurement is configured by RAN via RRC, the UE has no idea whether it is for positioning or not. The UE will follow based on RRM requirement. For UE Rx-Tx, if the UE supports, and if the RAN configures, the UE will do additional Rx-Tx for positioning. But considering the current descriptions were from Rel-9, and it is stage 2 descriptions, do not see the need for the change.  |
| Apple | Partially Agree | It is OK to have the change in first paragraph of 4.3.3 to explain the architecture difference between DL and UL E-CID.Do not agree remaining changes in 4.3.3 as we believe there is no difference in UE behaviour between the DL and UL E-CID.Agree with the changes in 8.3.3.3.1 |
| MediaTek | Partially agree | The changes in 8.3.3.3.1 seem correct. For the changes in 4.3.3, we don’t see the need. The “additional” measurements described in the CR are from the UE perspective still under RRC control, not directed by the E-SMLC, and in this sense they are not seen by the UE as “additional measurements for the sole purpose of positioning”; they are measurements performed for the usual reason, namely that the UE measures what the eNB tells it to measure. |
| ZTE | Partially agree | We share the same view with CATT&MTK. We are fine with the correction in 8.3.3.1. And we prefer to keep the 4.3.3 section as it is. |

# 3 Conclusion

There are 7 companies that provided inputs out of which 1 company agreed with the changes in R2-2008051, 1 company disagreed with the changes in R2-2008051, 1 company do not see the need for any corrections and 4 companies partially agreed with the changes in R2-2008051 (changes only to Section 8.3.3.3.1). So, 5 out 7 companies agreed to at least have a CR with changes to Section 8.3.3.3.1. So, a CR with changes to Section 8.3.3.3.1 was provided in R2-2008257 for further on-line discussions. It was decided that this report itself is not necessary to be formally submitted.

# References

[1] [R2-2008051](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_111-e/Docs/R2-2008051.zip), *UE E-CID measurement reporting, Nokia, Nokia Shanghai Bell*