3GPP TSG-RAN WG2 #118-e Tdoc R2-22xxxxx

Electronic meeting, 2022-05-09 - 2022-05-20

Agenda Item: 6.11.2.9

Source: Ericsson

Title: [AT118-e][623][POS] 38331 positioning CR (Ericsson)

Document for: Discussion, Decision

# 1 Introduction

# 1 Introduction

This document is to collect comments for the CR:

* [AT118-e][623][POS] 38331 positioning CR (Ericsson)

      Scope: Review and update the rapporteur CR, taking into account decisions of this meeting.  Discussion should coordinate with the handling of agenda item summaries.

      Intended outcome: Agreeable CR

      Deadline:  Tuesday 2022-05-17 1800 UTC

Further, there are RILs which need input.

[R2-2205811](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202205%20-%20RAN2_118-e,%20Online\Extracts\R2-2205811%20RIL%20E064%20TEG%20Reporting.docx) [RILE064] Moving TEG Reporting Configuration from SRS-Config to RRCReconfig Ericsson CR Rel-17 38.331 17.0.0 3118 - F NR\_pos\_enh-Core

[R2-2204998](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202205%20-%20RAN2_118-e,%20Online\Extracts\R2-2204998%20%5bH568%5d%20Correction%20for%20periodic%20TEG%20reporting.docx) [H568] Correction for periodic TEG reporting Huawei, HiSilicon CR Rel-17 38.331 17.0.0 3025 - F NR\_pos\_enh-Core

[R2-2205498](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202205%20-%20RAN2_118-e,%20Online\Extracts\R2-2205498_(6.11.2.9)%20%5bE066%5d%20Correction%20on%20structure%20of%20UEPositioningAssistInfo%20message%20contents%20for%20reducing%20unnecessary%20data%20transmission.docx) [E066] Correction on structure of UEPositioningAssistInfo message contents for reducing unnecessary data transmission Samsung R&D Institute UK discussion

[R2-2205585](file:///C:\Users\mtk16923\Documents\3GPP%20Meetings\202205%20-%20RAN2_118-e,%20Online\Extracts\R2-2205585%20Discussion%20on%20positioning%20RRC%20ASN.1%20issues.docx) Discussion on positioning RRC ASN.1 issues vivo discussion Rel-17 NR\_pos\_enh-Core

# 2 Contact Information

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| --- | --- |
| Company | Contact: Name (E-mail) |
| Huawei, HiSilicon | Yinghao Guo (yinghaoguo@huawei.com) |
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# 3 Comments

## 3.1 Moving TEG Reporting Configuration from SRS-Config to RRCReconfig

For RIL E064 [R2-2205811](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205811.zip)

The CR provides the motivation as why TEG reporting should be decouple from SRS-Config and the corresponding changes.

**Please provide the comments on the RIL E064 here:**

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| Company | CR Acceptable (Yes/No) | Comments |
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## **3.2** [H568] Correction for periodic TEG reporting

[R2-2204998](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2204998.zip) provides the changes on how to capture the periodic TEG reporting. Pls check the current rapporteur CR (R2-22xxxxx RRC Positioning CR\_v00) and express if any particular details from R2-2204998 is still needed.

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| OPTION 15.7.14.2 Initiation A UE capable of providing the association between UL SRS Resource for positioning and UE Tx TEG ID in RRC\_CONNECTED may initiate the procedure upon being configured to provide this association information.  Upon initiation of the procedure, the UE shall:  1> initiate transmission of the UEPositioningAssistanceInfo message in accordance with 5.7.14.3 to provide the association. 5.7.14.3 Actions related to transmission of *UEPositioningAssistanceInfo* message The UE shall set the contents of the *UEPositioningAssistanceInfo* message as follows:  1> if transmission of the *UEPositioningAssistanceInfo* message is initiated to provide the association between UL SRS Resource for positioning and Tx TEG according to 5.7.14.2;  2> if *ue-TxTEG-RequestUL-TDOA-Config* in *SRS-Config IE* is configured with *periodicReporting*;  3> include *ue-TxTEG-AssociationList* in the *UEPositioningAssistanceInfo* message on expiry of each configured period;  2> else if *ue-TxTEG-RequestUL-TDOA-Config* in *SRS-Config IE* is configured with *oneShot*:  3> include *ue-TxTEG-AssociationList* in the *UEPositioningAssistanceInfo* message only one time. | OPTION 25.7.14.2 Initiation A UE capable of providing the association between UL SRS Resource for positioning and UE Tx TEG ID in RRC\_CONNECTED may initiate the procedure upon being configured to provide this association information.  Upon initiation of the procedure, the UE shall:  1> initiate transmission of the *UEPositioningAssistanceInfo* message in accordance with 5.7.14.3 to provide the association.  1> if the UE is configured with *periodicReporting* within the field *ue-TxTEG-RequestUL-TDOA-Config*:  2> start the periodical reporting timer with the value of *periodicReporting* as defined within the field *ue-TxTEG-RequestUL-TDOA-Config*  The UE shall:  1> upon expiry of the periodical reporting timer:  2> initiate the reporting procedure for UE Tx TEG assocaition, as specified in 5.7.14.3.  2> re-start the periodical reporting timer with the value of *periodicReporting* as defined within the field *ue-TxTEG-RequestUL-TDOA-Config.* 5.7.14.3 Actions related to transmission of *UEPositioningAssistanceInfo* message The UE shall set the contents of the *UEPositioningAssistanceInfo* message as follows:  1> if *oneShot* is configured within the field *ue-TxTEG-RequestUL-TDOA-Config*; or  1> if *periodicReporting* is configured within the field *ue-TxTEG-RequestUL-TDOA-Config* and this is the first transmission of *UEPositioningInfo* message after initiation:  2> include in *ue-TxTEG-AssociationList* in the *UEPositioningAssistanceInfo* messagethe association between UL-SRS resources for positioning and the UE Tx TEG at the time when the configuration is received;  1> if *periodicReporting* is configured within the field *ue-TxTEG-RequestUL-TDOA-Config* and this is not the first transmission of *UEPositioningInfo* message after initiation:  2> include in the *ue-TxTEG-AssocaitionList* in the *UEPositioningAssistanceInfo* the associations between the UL-SRS resources for positioning and the UE Tx TEG since the last transmission of the *UEPositioningAssistanceInfo*. |

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| Company | Which version is preferred (Option 1 or Option 2) | Comments |
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## 3.3 [E066] Correction on structure of UEPositioningAssistInfo

[R2-2205498](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205498.zip) provides option to have addMod and release list delta style code structure for signaling optimization of TEG reporting.

Companies are requested to provide their view.

Note: SRS-PosResourceSet is however has to be removed from TEG reporting based upon RAN1 LS.

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## 3.4 Discussion on positioning RRC ASN.1 issues

[R2-2205585](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2205585.zip) discuees the need of below two fields and proposes to add it.

UE-TxTEG-Association-r17 ::= SEQUENCE {

ue-TxTEG-ID-r17 INTEGER (1.. maxUE-Tx-TEG-ID-r17),

absoluteFrequencyPointA ARFCN-ValueNR,

offsetToPointA INTEGER (0..2199),

nr-TimeStamp-r17 NR-TimeStamp-r17,

Proposal : Add the *absoluteFrequencyPointA* and *offsetToPointA* in *UE-TxTEG-Association* to provide frequency information about the SRS for positioning resources in multiple CCs.

Do companies agree to the proposal?

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# 4 Comments For Complete CR “R2-22xxxxx RRC Positioning CR\_v00”

**Please provide the comments on the** [**CR**](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_118-e/Inbox/Drafts/%5BOffline-623%5D%5BPOS%5D%2038331%20positioning%20CR%20(Ericsson)/R2-22xxxxx%20RRC%20Positioning%20CR_v00.docx) **here:**

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| Company | Comments |
| Huawei, HiSilicon | 1> else if cell reselection occurs when *srs-PosRRC\_InactiveConfig* is configured:  2> indicate to the lower layer to stop *srs-TimeAlignmentTimer* transmission in RRC\_INACTIVE;  2> release the *srs-PosRRC-InactiveConfig*.  name of the timer is not correct |
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# Conclusion

In the previous sections we made the following observations: