3GPP TSG-RAN WG2 #117-e Tdoc R2-22xxxxx

Electronic meeting, 2022-02-21 - 2022-03-03

Agenda Item: 8.11.1

Source: Ericsson

Title: [AT117-e][607][POS] Positioning running CR to 38.331 (Ericsson)

Document for: Discussion, Decision

# 1 Introduction

# 1 Introduction

This document is to collect comments for the RRC CRs:

* [AT117-e][607][POS] Positioning running CR to 38.331 (Ericsson)

      Scope: Review and update the CR in R2-2203364, including merge of the draft CRs in R2-2203362 and R2-2203445.

      Intended outcome: Endorsable CR

      Deadline:  Friday 2022-02-25 1000 UTC

The intention is to endorse below RRC CRs and capture it is R2-2203364

1. [R2-2203362](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_117-e/Inbox/R2-2203362.zip) RAN1 parameter list impact to RRC running CR Ericsson draftCR Rel-17 38.331 16.7.0 B NR\_pos\_enh-Core
2. [R2-2203445](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_117-e/Docs/R2-2203445.zip) Capturing RRC impacts for RAT dependent Positioning Ericsson draftCR Rel-17 38.331 16.7.0 B NR\_pos\_enh-Core

# 2 Contact Information

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# 3 3 Discussion

## 3.1 RAN1 Parameter list and Related RAN2 Agreements CR

Please provide your comments on the CR.

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| Company | Comments |
| CATT | 5.7.XX.2 Initiation1> if *ue-TxTEG-RequestUL-TDOA-Config* in *RRCReconfiguration* message to requestthe association between UL SRS Resource for positioning and Tx TEG:Rapp: 1> if *ue-TxTEG-RequestUL-TDOA-Config* in *RRCReconfiguration* message is configured to request the association between UL SRS Resource for positioning and Tx TEG: |
| Intel |  1 MG, so far the preconfigured MG cannot be released. MeasGapPreConfigList-r17 ::= SEQUENCE (SIZE (1..maxGapConfig)) OF MeasGapPreConfig-r17Would be good to use SetupRelease structure. 2 Similar to MGE WI (R2-2202868), would be good to add MGID MeasGapConfig ?, e.g.GapConfig ::= SEQUENCE { gapOffset INTEGER (0..159), mgl ENUMERATED {ms1dot5, ms3, ms3dot5, ms4, ms5dot5, ms6}, mgrp ENUMERATED {ms20, ms40, ms80, ms160}, mgta ENUMERATED {ms0, ms0dot25, ms0dot5}, ..., [[ refServCellIndicator ENUMERATED {pCell, pSCell, mcg-FR2} OPTIONAL -- Cond NEDCorNRDC ]], [[ refFR2ServCellAsyncCA-r16 ServCellIndex OPTIONAL, -- Cond AsyncCA mgl-r16 ENUMERATED {ms10, ms20} OPTIONAL -- Cond PRS  ]], [[ measGapId-r17 MeasGapId-r17 OPTIONAL,  preConfigInd-r17 ENUMERATED {true} OPTIONAL -- Need R ]]}Rapp: As editorial note has been added to align with MGE WI (R2-2202868), |
|  vivo | 1.The comma is missing in the following three palces:oneShot-r17 NULL priority-r17 ENUMERATED {opt1-st1, opt1-st2, opt2-st1, opt2-st2, opt2-st3, opt3-st1} dl-PRS-ProcessingWindowPreConfigList-r17 DL-PRS-ProcessingWindowPreConfigList-r17 OPTIONAL --Need NRapp: Done2. The “ue-TxTEG\_Request\_UL-TDOA-Config” should be changed to “ ue-TxTEG-Request-UL-TDOA-Config”Rapp: Done3. For the UE-TxTEG-RequestUL-TDOA-Config-r17, the oneShot indication shall be revised to reportAmount, the value range include 1 and infinity, other values depends on the gNB’s capability.Besides, RAN2 shall discuss and decide the event-triggered report from the perspective of signalling efficiency. We think the spec impact is limited:4. Add a description of UE-TxTEG-AssociationList that if this field is absent, the UE indicates that the TEG association does not change during the configured period.5. Add a description of UE-TxTEG-Association that the UE only reports the TEG associations that have changed. Other TEG associations that are not reported are regarded as not change during the configured period. Rapp: Added. ----------Editor Notes: RAN2 to decide on Event Driven Reporting, noChange, DeltaChange. |
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## 3.2 RAT dependent Positioning

Please provide your views on RAT dependent positioning CR.

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| Company | Comments |
| Qualcomm | (According to RAN1 agreements/LS (e.g., R2-2200083), SRS for positioning may be transmitted in RRC\_INACTIVE State, and therefore:* RAN1 assumes that
	+ SRS for positioning for UEs in RRC\_INACTIVE state is configured using the *SRS-PosResourceSet* IE

However, in the current running CR, SRS for positioning in *SuspendConfig* is configured via *SRS-Config*. A possible implementation according to RAN1 agreement was proposed by e.g., CATT in R2-2203091:SRS-PosRRC-InactiveConfig-r17 ::= SEQUENCE { srs-PosConfig-r17 SetupRelease {SRS-PosConfig-r17} OPTIONAL, -- Need M bwp-r17 BWP OPTIONAL, -- Need S srs-TimeAlignmentTimer-r17 ENUMERARED {FFS align with SDT} OPTIONAL, -- Need R changeThresh-r17 RSRP-ChangeThresh-r17, OPTIONAL, -- Need R }RSRP-ChangeThresh-r17 ::= ENUMERATED {dB4, dB6, dB8, dB10, dB14, dB18, dB22, dB26, dB30, dB34, spare6, spare5, spare4, spare3, spare2, spare1}SRS-PosConfig-r17 ::= EQUENCE { srs-PosResourceSetToReleaseList-r17 SEQUENCE (SIZE(1..maxNrofSRS-PosResourceSets-r16)) OF SRS-PosResourceSetId-r16 OPTIONAL, -- Need N srs-PosResourceSetToAddModList-r17 SEQUENCE (SIZE(1..maxNrofSRS-PosResourceSets-r16)) OF SRS-PosResourceSet-r16 OPTIONAL,-- Need N srs-PosResourceToReleaseList-r17 SEQUENCE (SIZE(1..maxNrofSRS-PosResources-r16)) OF SRS-PosResourceId-r16 OPTIONAL,-- Need Nsrs-PosResourceToAddModList-r17 SEQUENCE (SIZE(1..maxNrofSRS-PosResources-r16)) OF SRS-PosResource-r16 OPTIONAL -- Need N}This would be a better implementation of the RAN1 agreements. Therefore, the SRS-Config should be replaced with SRSPosResourceSetRapp: Done. |
| vivo | 1. The MAC layer is responsible for monitoring the time validity of SRSp and RSRP changes. Thus the clause 5.X can be removed.2. Whether the following agreement shall be captured in RRC spec: TA timer configuration of SRS for positioning (SRSp) is invalidated upon any cell reselection (i.e. even if the UE does not initiate the RRC resume procedure)Rapp: For comemnt 1 & 2: 2 may need to go in 5.X as highlighted below; however as we may use MAC spec so we can check this later.5.X  Timing alignment validation for SRS for Positioning transmission in RRC InactiveThe UE shall: 1> if *srs-timeAlignmentTimer* is configured and *srs-TimeAlignmentTimer* is running and UE has not performed cell reselection to any other cell and is camped in the cell where the configuration was received; 2> if *RSRP-ChangeThreshold* is configured and the following conditions are fulfilled:3> if the serving cell RSRP has not increased by more than *changeThresh* compared to the stored serving cell reference RSRP value; and3> if the serving cell RSRP has not decreased by more than *changeThresh* compared to the stored serving cell reference RSRP value; 4> consider the Timing Advance value for SRS for Positioning transmission to be valid;2> else:3> consider the SRS for positioning configuration in RRC Inactive state to be invalid. Editor’s Note: can be updated to align with SDT TA Validation Procedure3. agree with QC’s version about the SRSconfig.Rapp: Ok commet 3 done. |
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## 3.3 Any other comments

**Question 3**: please provide any additional comment; e.g. any additional impacts foreseen

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| Company | Comments |
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# 4 Conclusion