**3GPP TSG- Meeting #125R2-24xxxxx**

**Athens, Greece, 26th Feb – 1st March 2024**

Agenda Item: 7.2.1

Source: Ericsson

Title: [Post125][409][POS] 38.331 Rel-18 positioning CR (Ericsson)

Document for: Discussion, Decision

# Introduction

This is to kick off the email discussion.

* [Post125][409][POS] 38.331 Rel-18 positioning CR (Ericsson)

Scope: Update and check the CR in R2-2401318.

Intended outcome: Agreed CR in R2-2401632

Deadline: Short (for RP)

# 2 Discussion

## 2.1 LPHAP

Please provide your comments on the LPHAP changes

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| Company Name | Comments |
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## 2.2 Sidelink

Please provide your comments on Sidelink changes.

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| Company Name | Comments |
| Intel | RAN1 sent LS R1-2401827, ask RAN2 to capture two new parameters „*sl-ThreshS- RSSI-PRS-CBR*“ and „*sl-FilterCoefficient*“, would be good to capture them in this version.  Rapporteur: The two parameters has been added in *SL-PRS-ResourcePool* in the RRC. |
| vivo001 | 5.2.2.4.13/5.2.2.4.25/5.8.3.3  3> if configured to receive NR sidelink control information for SL-PRS measurement:  From the perspective of RRC layer of UE, a relative higher layer to perform resource control, it cannot understand SCI of SL-PRS. It is PHY to actually receive SCI.  Prefer to change it into a high-level description as “to receive SL-PRS”.  Rapporteur: In the new version RRC, this has been revised as “to perform SL-PRS measurement” |
| vivo002 | 5.2.2.4.25  RAN2#125 meeting has agreed that “Support segmentation of SIB23”.  Thus, UE should ensure having the latest version of SIB23. The following clause should be captured.  “Upon receiving *SIB23*, the UE shall:  1> if the UE has stored at least one segment of *SIB23* and the value tag of *SIB23* has changed since a previous segment was stored:  2> discard all stored segments;  1> store the segment;  1> if all segments have been received:  2> assemble *SIB23-IEs* from the received segments;  2> if *sl-PosFreqInfoList* is included in *sl-PosConfigCommonNR*:  …”Rapporteur: Thanks for the comment, this has been addressed in the new CR. |
| vivo003 | 5.5.3.1  3> if configured with NR sidelink positioning and the cell chosen for NR sidelink positioning provides *SIB23* which includes *sl-TxPoolSelectedNormal*, *sl-TxPoolExceptional, sl-PRS-TxPoolSelectedNormal* or *sl-PRS-TxPoolExceptional* forthe concerned frequency:  4> perform CBR measurement on pool(s) in *sl-TxPoolSelectedNormal*, *sl-TxPoolExceptional, sl-TxPoolSelectedNormal* or *sl-TxPoolExceptional* for the concerned frequency in *SIB23*;  RAN2#125 meeting has agreed that “Configure the SL-PRS shared resource pool under SIB12 and the SL-PRS dedicated resource pool under SIB23.”  The pool of resources for SL-PRS dedicated resource pool in SIB23 and shared resource pool in SIB12 should be respectively described.  “3> if configured with NR sidelink positioning and the cell chosen for NR sidelink positioning provides *SIB23* which includes *sl-PRS-TxPoolSelectedNormal* or *sl-PRS-TxPoolExceptional*, or provides SIB12 which includes *sl-TxPoolSelectedNormal*, *sl-TxPoolExceptional* forthe concerned frequency:  4> perform CBR measurement on pool(s) in *sl-PRS-TxPoolSelectedNormal*, *sl-PRS-TxPoolExceptional, sl-TxPoolSelectedNormal* or *sl-TxPoolExceptional* for the concerned frequency;”  Rapporteur: Thanks for the comment, this has been addressed in the new CR. |
| vivo004 | Editorial change.  5.5.3.1  2> if the UE is in RRC\_CONNECTED:  3> if *tx-PoolMeasToAddModList* is included in *VarMeasConfig*:  4> perform CBR measurements on each transmission resource pool indicated in the *tx-PoolMeasToAddModList*;  3> if *sl-DiscTxPoolSelected*, *sl-TxPoolSelectedNormal*, *sl-TxPoolScheduling*, *sl-TxPoolExceptional, sl-PRS-TxPoolSelectedNormal*, *sl-PRS-TxPoolScheduling* or *sl-PRS-TxPoolExceptional* is included in *sl-ConfigDedicatedNR* for the concerned frequency within *RRCReconfiguration*:  4> perform CBR measurement on pool(s) in *sl-DiscTxPoolSelected*, *sl-TxPoolSelectedNormal*, *sl-TxPoolScheduling*, *sl-TxPoolExceptional, sl-PRS-TxPoolSelectedNormal*, *sl-PRS-TxPoolScheduling* and *sl-PRS-TxPoolExceptional* if included in *sl-ConfigDedicatedNR* for the concerned frequency within *RRCReconfiguration*;  3> else:  4> if configured with NR sidelink communication and the cell chosen for NR sidelink communication provides *SIB12* which includes *sl-TxPoolSelectedNormal* or *sl-TxPoolExceptional* forthe concerned frequency; or  4> if configured with NR sidelink discovery and the cell chosen for NR sidelink discovery provides *SIB12* which includes *sl-TxPoolSelectedNormal* or *sl-TxPoolExceptional* but does not provide *sl-DiscTxPoolSelected* forthe concerned frequency:  5> perform CBR measurement on pool(s) in *sl-TxPoolSelectedNormal* or *sl-TxPoolExceptional* for the concerned frequency in *SIB12*;  4> if configured with NR sidelink discovery and the cell chosen for NR sidelink discovery provides *SIB12* which includes *sl-DiscTxPoolSelected* forthe concerned frequency:  5> perform CBR measurement on pools in *sl-DiscTxPoolSelected* and *sl-TxPoolExceptional* for the concerned frequency in *SIB12*;  4> if configured with NR sidelink positioning and the cell chosen for NR sidelink positioning provides *SIB23* which includes *sl-PRS-TxPoolSelectedNormal* or *sl-PRS-TxPoolExceptional*, or provides SIB12 which includes *sl-TxPoolSelectedNormal*, *sl-TxPoolExceptional* forthe concerned frequency:  5> perform CBR measurement on pool(s) in *sl-TxPoolSelectedNormal*, *sl-TxPoolExceptional*, *sl-PRS-TxPoolSelectedNormal* or *sl-PRS-TxPoolExceptional* for the concerned frequency*.*  Rapporteur: Thanks for the comment, this has been addressed in the new CR. |
| vivo005 | 5.5.3.1  2> if configured with NR sidelink positioning and *sl-TxPoolSelectedNormal* or *sl-PRS-TxPoolSelectedNormal* is included in *SL-PreconfigurationNR* for the concerned frequency:  3> perform CBR measurement on pool(s) in *sl-TxPoolSelectedNormal* or *sl-PRS-TxPoolSelectedNormal* in *SidelinkPreconfigNR* for the concerned frequency.  RAN2#125 meeting(main session) has agreed that “=> rely on SL-PreconfigurationNR only and not define SL-PosPreconfigurationNR”. Therefore, SL-PRS dedicated resource pool should also be included in *SidelinkPreconfigNR.*  Rapporteur: Thanks for the comment, SL-PosPreconfigurationNR has been removed and SL-PRS dedicated resource pool are included in SidelinkPreconfigNR in the new version RRC. |
| vivo006 | 5.8.3.3  5> set the *sl-PosQoS-InfoList* to include the SL-PRS transmission QoS profile configured by the upper layer;  There is no such agreement on positioning QoS report to gNB in SUI. In our view, gNB is of no advantage to obtain the positioning QoS from UE. Prefer to remove it.  Rapporteur: we have changed the IE name to sl-PRS-QoS-Infolist and SL-PRS-QoS-Info, to clearly indicate this is the QoS for SL-PRS transmission, and not for SL positioning QoS. |
| vivo007 | 5.8.18.3 NR sidelink positioning transmission RAN2#125 meeting has agreed that “Configure the SL-PRS shared resource pool under SIB12 and the SL-PRS dedicated resource pool under SIB23.” In this sense, a UE capable of NR sidelink positioning that is configured by upper layers to transmit SL-PRS shall listen to the frequency used for NR sidelink positioning configured in RRC dedicated msg and SIB12/23, in order to obtain information for both shared/dedicated SL-PRS resource pool.  In summary, the description of UE performing SL-PRS transmission using *sl-TxPoolSelectedNormal* (i.e. shared resource pool) should also be included in this clause.  Rapporteur: 5.8.18.3 has been updated to include *sl-TxPoolSelectedNormal*. |
| vivo008 | – *SidelinkUEInformationNR* SL-PosTxResourceReq-r18 ::= SEQUENCE {  sl-PosDestinationIdentity-r18 SL-DestinationIdentity-r16,  sl-PosCastType-r18 ENUMERATED {broadcast, groupcast, unicast, spare1},  sl-PosTxInterestedFreqList-r18 SL-TxInterestedFreqList-r16 OPTIONAL,  sl-PosTypeTxSyncList-r18 SEQUENCE (SIZE (1..maxNrofFreqSL-r16)) OF SL-TypeTxSync-r16 OPTIONAL,  sl-PosQoS-InfoList-r18 SEQUENCE (SIZE (1..maxNrofSL-PRS-PerDest-r18)) OF SL-PosQoS-Info-r18 OPTIONAL,  sl-PosCapabilityInformationSidelink-r18 OCTET STRING OPTIONAL,  ...  }  Same comment as vivo006. We see no enhancement for gNB to get information of positioning QoS and positioning capability via SUI, since these parameters are transferred and exploited between UE and LMF.  Apart from that, seeing the exact content of *sl-PosQoS-InfoList*, it contains priority and delay budget of SL-PRS, which has been agreed to contain in UAI for request SL grant for SL-PRS. It is redundant to repeatedly included in SUI.  Prefer to remove the highlight part.  Rapporteur: we have removed'Pos', and use sl-CapabilityInformationSidelink-r18, which is not used for indicating SL positioning capability, while it is already part of legacy which includes UE RRC capability and can be reused. |
| vivo009 | ***sl-PRS-BW***  Indicates the desired bandwidth of the requested SL-PRS resources in the unit of MHz.  Should keep the name of IE aligned as *sl-PRS-Bandwidth* in ASN.1.  Rapporteur: we have updated the IE name. |

## 2.3 Bandwidth Aggregation

Please provide your comments on the bandwidth aggregation changes.

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## 2.4 REDCAP CR

Please provide your comments on the RedCap changes

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## 2.5 Any other comments

Please provide any other comments below.

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# Conclusion

In the previous sections we made the following observations:

Based on the discussion in the previous sections we propose the following:

# References