**3GPP TSG-RAN WG2 Meeting #124R2-23xxxxx**

**Chicago, USA, Nov 13-17, 2023, 2023**

**Agenda item: 7.2.1**

**Source: Xiaomi**

**Title: [Post123bis][407][POS] Rel-18 positioning capabilities (Xiaomi)**

**Document for: Discussion and Decision**

# Introduction

This is to check and update the Rel-18 positioning CRs to 37.355, and provide an open issue list for next meeting.

* [Post123bis][407][POS] Rel-18 positioning capabilities (Xiaomi)

Scope: Collect open issues on Rel-18 positioning capabilities and draft an initial CR.

Intended outcome: Report and draft CR to next meeting

Deadline: Medium (2 weeks)

# Discussion on the running 38.306 CR

**Question 1: Companies are invited to provide their comments on the running 38.306 CR for SL positioning.**

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| **Company** | **Comments** |
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**Summary: Companies don’t provide the comments on the running 38.306 CR for SL positioning, rapporteur updates the running CR according to the comments on the UE capability for SLPP.**

**Question 2: Companies are invited to provide their comments on the running 38.306 CR for Uu positioning.**

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| **Company** | **Comments** |
| Intel | Change mark is missing for some changes. |
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**Summary: Rapporteur updates the running 38.306 CR for Uu positioning according to the comments on the UE capability for LPP.**

# Discussion on draft TP for RRC capability signalling

**Question 3: Companies are invited to provide their comments on the draft TP for RRC capability signalling for SL positioning**

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| **Company** | **Comments** |
| Intel | 1 ASN.1 issue, e.g. additional comma  ...,  }  2 It cannot be put in the middle of R17 fields;  -- R1 41-3-1: Positioning SRS transmission in RRC\_INACTIVE state in validity area for initial UL BWP  posSRS-Validityarea-RRC-Inactive-InInitialUL-BWP-r18 ::= |
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**Summary: Rapporteur updates the draft TP for RRC capability signalling for SL positioning accordingly.**

**Question 4: Companies are invited to provide their comments on the draft TP for RRC capability signalling for Uu positioning**

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| **Company** | **Comments** |
| Intel | 1 ASN.1 issue, e.g. additional comma  ...,  }  2 It cannot be put in the middle of R17 fields;  -- R1 41-3-1: Positioning SRS transmission in RRC\_INACTIVE state in validity area for initial UL BWP  posSRS-Validityarea-RRC-Inactive-InInitialUL-BWP-r18 ::= |
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**Summary: Rapporteur updates the draft TP for RRC capability signalling for Uu positioning accordingly.**

# Discussion on draft TP for SLPP capability signalling

**Question 5: Companies are invited to provide their comments on the draft TP for SLPP capability signalling.**

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| **Company** | **Comments** |
| Intel | 1 41-1-5, RAN1 did not mention “Need for location server/server UE to know if the feature is supported”, and therefore should not be captured in SLPP.  2 “- Feature indexes are added in the implementation( e.g. feature name) just for easy reference, and will be removed later.”, not quite sure whether it is for the index in the field description or the reference in the ASN.1 part. For ASN.1 part, same as RRC, we should keep for easy reference.  3 ENUMATED-> ENUMERATED  4 comma shall be deleted for “...,”  5 sl-PathlossBased-OLPC-SL-RSRP-Report-> sl-PathlossBasedOLPC-SL-RSRP-Report  6 some ASN.1 issues, e.g. missing comma, redundant comma, etc; |
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**Summary: The comments are accepted and the draft TP for SLPP capability signalling is updated.**

# Discussion on draft TP for LPP capability signalling

**Question 6: Companies are invited to provide their comments on the draft TP for LPP capability signalling for CPP**

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| **Company** | **Comments** |
| Intel | 1 ASN.1 issue, e.g. additional space, missing comma, additional comma  ... ,  [[  dl-RSCPD-MeasRRC-Coneccted-r18 SEQUENCE {  maxNrofdl-FirstPathRSCPD-MeasurmentPerPairOfTRP-r18 INTEGER (1..4) OPTIONAL,  ...  }  dl-RSCPD-MeasRRC-Inactive-r18 ENUMERATED { supported } OPTIONAL,  ]]  }  2 why is the high level field needed if only one childfield exist?  dl-RSCP-MeasRRC-Coneccted-r18 SEQUENCE {  maxNrofdl-FirstPathRSCP-MeasurmentPerPairofTRP-r18 INTEGER (1..4) OPTIONAL,  } |
| Huawei/HiSilicon | Editorial: dl-RSCPD-MeasRRC-Coneccted-r18 |
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**Summary: The comments are accepted and the draft TP for LPP capability signalling for CPP is updated.**

**Question 7: Companies are invited to provide their comments on the draft TP for LPP capability signalling for bandwidth aggregation**

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| **Company** | **Comments** |
| Intel | 1 comma shall be deleted for “...,”, several places  2 comma is missing  ...  [[  3 comma shall be deleted for  supportOfDL-PRS-BA-RRC-Idle-r18 ENUMERATED { supported } OPTIONAL, |
| Huawei/HiSilicon | 1. Editorial in the field description for “***prs-BWA-TwoContiguousIntrabandInMG-RRC-Connected***”: 2. Editorial: remove “and” from “and and”; remove “of” from “MHz of for FR1” (in a couple of places) 3. Add “-“ between PRS and BA for “***prs-durationOfTwoPRSBA-ProcessingSymbolsN***” 4. In the field description for “***prs-BWA-ThreeContiguousIntrabandInMG-RRC-Connected***”, number of PFLs should be 3. That is “aggregated PRS processing of 2 PFLs in intra-band” should be “aggregated PRS processing of 3 PFLs in intra-bad” 5. The field description for “posSRS-BA-RRC-Connected-r18”, “independent” is not correct. |
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**Summary: The comments are accepted and the draft TP for LPP capability signalling for bandwidth aggregation is updated.**

**Question 8: Companies are invited to provide their comments on the draft TP for LPP capability signalling for Redcap UE positioning**

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| **Company** | **Comments** |
| Intel | 1 ASN.1 issue, e.g. additional space, additional comma  PRS-MeasurementWithRxFH-withinMG -r18 |
| Huawei/HiSilicon | 1. Missing “-“ between PRS and Bandwidth in “maxNumOfDL-PRSBandwidthperHops-FR2-r18” 2. The parameters for 41-5-1 from RAN1 are still FFS (marked yellow). Similar should be reflected in the UE capabilities implementation. 3. Editorial: PH should be FH in “***prs-durationOfPRS-RxPH-ProcessingSymbolsT***” |
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**Summary: The comments are accepted and the draft TP for LPP capability signalling for Redcap positioning is updated.**

**Question 9: Companies are invited to provide their comments on the draft TP for LPP capability signalling for LPHAP**

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| **Company** | **Comments** |
| Intel | 1 ASN.1 issue, e.g. additional space, missing comma, additional comma  ... , |
| Huawei/HiSilicon | 41-3-2: does not contain “maxNumberConfiguredcellPerValidityarea” |
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**Summary: The comments are accepted and the draft TP for LPP capability signalling for LPHAP is updated.**

**Question 10: Companies are invited to provide their comments on the draft TP for LPP capability signalling for RAT-dependent positioning integrity**

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| **Company** | **Comments** |
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**Summary: No comments are received, Rapporteur will provide the draft TP for LPP capability signalling for RAT-dependent positioning integrity in the next meeting.**

# Discussion on the open issues of the UE capability

**Question 11: Companies are invited to provide their comments on the open issues list of the UE capability**

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| **Company** | **Comments** |
| Intel | Any suggestion on how to handle the open issue list? Based on company contribution, or Rapporteur will provide proposals? |
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**Summary: For open issue list, Rapporteur will provide proposals and** **companies’ contribution are welcomed as well.**

# Summary

**In this email discussion, 2 companies provide comments on the UE capability and rapporteur updates the draft TP and running CR according to the comments. Regarding to the open issue list, rapporteur will provide the proposals in the next meeting and companies’ contribution on the open issue list are welcomed as well.**

# participants

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| **Company Name** | **Participant name/contact** |
| Intel | Yi.guo@intel.com |
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