**3GPP TSG-RAN WG2 Meeting #121bis-e R2-230xxxx**

**e-Meeting, 17th April – 26th April 2023**

**Agenda item:** 7.2.1

**Source:** Intel Corporation

**Title:** [AT121bis-e][422][POS] SLPP specification baseline (Intel)

**Document for:**  Discussion and decision

# Introduction

This is the report of following at meeting offline discussion:

* [AT121bis-e][422][POS] SLPP specification baseline (Intel)

Scope: Collect comments on R2-2302738 and R2-2302739 and attempt to converge to a baseline, taking into account also related contributions on SLPP structure.

Intended outcome: Report and endorseable skeleton

Deadline: Monday 2023-04-24 2359 UTC

# Contact Information

Respondents to the email discussion are kindly asked to fill in the following table.

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| Company | Contact: Name (E-mail) |
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# Discussion

### 3.1 TS Skeleton

As discussed in R2-2302738:

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| In summary, we captured following agreements in [8].  Regarding the structure of SLPP, e.g. general part, procedure part , Information Element Abstract Syntax Definition, the structure of LPP (TS 37.355) can be used as baseline for further discussion.  Regarding the ASN.1 part of SLPP, follow NR RRC approach, e.g.  Define ASN.1 elements for common UE capabilities in a dedicated section (i.e. “UE capability information elements”);  - Common section for constraints    **Proposal 1: Endorse the TS Skeleton in R2-230xxxx as baseline for further updates.** |

Rapporteur would like to check companies’ view .

**Question 1: Do companies agree to endorse the TS skeleton in R2-2302739.**

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| **Company** | **Yes/No** | **Remark** |
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### 3.2 Open issues for the TS38.355

### 3.2.1 Need code and delta signalling

R2-2302738 discussed the open issues “FFS on Need code (e.g. how to support no UL/DL)”:

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| To our understanding, the principle used for PC5 RRC is to follow legacy RRC, i.e. Need code is applied if the PC5 RRC message is defined as downlink in legacy RRC, e.g. Need code is applied for *RRCReconfigurationSidelink* message, but not applied for *RRCReconfigurationCompleteSidelink* message. We can follow the same principle for SLPP message, i.e. Need code is applied for the messages which are provided from anchor/server to a target UE.  **Proposal 2: Need code is applied for SLPP messages transmitted from the anchor/server node/UE.** |

Rapporteur would like to check companies’ view .

**Question 2: Do companies agree the proposal 2 in R2-2302738 , i.e.**

**Need code is applied for SLPP messages transmitted from the anchor/server node/UE.**

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| **Company** | **Yes/No** | **Remark** |
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R2-2302885 discussed open issue FFS support of delta signalling for unicast transmission

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| **Proposal 1:** Delta signaling is applied for the unicast transmission of the SLPP ProvideAssistanceData message. |

**Question 3: Do companies agree the proposal 1 in R2-2302885 , i.e.**

**Delta signaling is applied for the unicast transmission of the SLPP ProvideAssistanceData message..**

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| **Company** | **Yes/No** | **Remark** |
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R2-2302885 also discussed open issue FFS support of delta signalling for groupcast/broadcast transmission

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| **Proposal 2:** Delta signaling may be applied for the groupcast transmission of the SLPP ProvideAssistanceData message when protection of groupcast transmission of SL positioning assistance data information can be ensured.  **Proposal 3:** No delta signaling is applied for the broadcast transmission of the SLPP ProvideAssistanceData message if supported. |

**Question 4: Do companies agree the proposal 2 in R2-2302885 , i.e.**

**Delta signaling may be applied for the groupcast transmission of the SLPP ProvideAssistanceData message when protection of groupcast transmission of SL positioning assistance data information can be ensured.**

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| **Company** | **Yes/No** | **Remark** |
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**Question 5: Do companies agree the proposal 3 in R2-2302885 , i.e.**

**No delta signaling is applied for the broadcast transmission of the SLPP ProvideAssistanceData message if supported..**

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| **Company** | **Yes/No** | **Remark** |
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If proposal 1, 2 and 3 in R2-2302885 are agreeable, R2-2302885 also proposed to introduce full configuration as what we have in RRC.

**Question 6: Do companies agree the proposal 4 in R2-2302885 , i.e.**

**Consider full configuration signaling for the unicast/groupcast transmission of the SLPP ProvideAssistanceData message.**

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| **Company** | **Yes/No** | **Remark** |
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### 3.2.2 Import IEs from LPP

R2-2302738 also discussed whether import IE definition from LPP as

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| Similar to PC5 RRC, if some IE definitions from LPP can be reused for SLPP, we may simply import them from LPP specification, as  IMPORTS  Xxx  FROM LPP-PDU-Definitions;  **Proposal 3: We may import some IE definitions from LPP specification if needed.** |

R2-2302885 also discussed to import IE definition from LPP as

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| **Proposal 6:** Create SLPP ASN.1 as separate module and use IMPORT function for importing useful IEs, constants and LPP messages from the LPP module if deemed necessary. |

Rapporteur would like to check companies’ view .

**Question 7: Do companies agree that we may import some IE definitions from LPP specification if needed.**

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| **Company** | **Yes/No** | **Remark** |
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### 3.2.3 Too early to discuss

Following issues are valid, but Rapporteur think these issues should be discussed when the details are more clear, therefore no proposal on this.

Issue 1: Setup/release or release (R2-2302885 );

* Proposal 5: Discuss and agree on the basic release mechanisms to support for session-based SLPP.

Issue 2: Message mode indication (R2-2303591)

* Proposal 14: SLPP should indicate the transaction (communication) mode to be used for each SLPP message, i.e. whether broadcast mode, groupcast mode or unicast mode is to be used (e.g., in a common SLPP message header). At least the following common transaction modes shall be supported:
* • Unicast transaction
* • Group Transaction with Group Replies
* • Group Transaction with Unicast Replies
* • Broadcast Transaction.

# Summary

Based on the input from companies, we have the following proposals:

# Reference

[1] R2-2302738 Further considerations on SLPP specification Intel Corporation

[2] R2-2302739 TS 38.355 skeleton Intel Corporation

[3] R2-2302885 Discussion on further SLPP aspects Lenovo discussion

[4] R2-2303591 Sidelink Positioning Protocol (SLPP) Signaling and Procedures Qualcomm Incorporated