**3GPP TSG RAN WG1 #106-e R1-210XXXX**

**e-Meeting, August 16th – 27th, 2021**

**Source: RAN1 Chair**

**Title: RAN1#105-e preparation phase on LSs**

**Document for:** **Discussion and Decision**

# Introduction

This document summarizes the contributions submitted to Agenda Item 5 (Incoming Liaison Statements) in RAN1#106-e and identifies a set of LS that needs to be addressed in the email discussion phase of RAN1#106-e.

# Summary

## Incoming LSs “To RAN1”

### R1-2106405, Reply LS to RAN1 on physical layer aspects of small data transmission, RAN2 (vivo)

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| --- | --- |
| **Initial assessment** | Email discussion under agenda item 5.2. |
| **Relevant tdocs (if any)** | R1-2106924 (CATT) |
| **Company** | **Views (if any)** |
| Nokia | A reply LS seems to be needed. To be taken in AI 5.2 |
| Samsung | Agree with chair’s initial assessment. |
| vivo | Agree with the initial assessment. |

### R1-2106406, LS on resource reselection trigger sl-reselectAfter, RAN2 (Apple)

|  |  |
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| **Initial assessment** | Email discussion under agenda item 7.2.4. |
| **Relevant tdocs (if any)** | R1-2106849 (Samsung), R1-2106995 (CATT, GOHIGH), R1-2107222 (OPPO), R1-2107305 (Qualcomm), R1-2107530 (LG Electronics), R1-2107565 (Intel), R1-2107699 (Apple), R1-2107702 (Apple), R1-2107955 (vivo), R1-2108077 (ZTE, Sanechips), R1-2108127 (Ericsson), R1-2108132 (Ericsson), R1-2108180 (Nokia, Nokia Shanghai Bell), R1-2108183 (Huawei, HiSilicon) |
| **Company** | **Views (if any)** |
| Nokia | A reply LS seems to be needed. To be taken in AI 7.2.4 |
| Samsung | Agree with chair’s initial assessment. |
| vivo | Agree with the initial assessment. |
| OPPO | Agree with the initial assessment |

### R1-2106407, LS response on two PUCCH capability, RAN2 (OPPO)

|  |  |
| --- | --- |
| **Initial assessment** | Noted. No subsequent email discussion needed. |
| **Company** | **Views (if any)** |
| Nokia | Agree with the initial assessment |
| Samsung | Agree with chair’s initial assessment. |
| vivo | Agree with the initial assessment. |

### R1-2106408, Reply LS on G-RNTI and G-CS-RNTI for MBS, RAN2 (CMCC)

|  |  |
| --- | --- |
| **Initial assessment** | Noted. No subsequent email discussion needed. |
| **Company** | **Views (if any)** |
| Nokia | Agree with the initial assessment |
| Samsung | Agree with chair’s initial assessment. |
| vivo | Agree with the initial assessment. The RAN2 agreement will be taken into consideration in the MBS session. |
| Futurewei | Agree |

### R1-2106409, Reply LS on overlapped data and SR with equal L1 priority, RAN2 (Samsung)

|  |  |
| --- | --- |
| **Initial assessment** | Noted. No subsequent email discussion needed. |
| **Company** | **Views (if any)** |
| Nokia | No reply LS needed. To be taken into account in Rel-16 URLLC PUSCH skipping discussions in AI 6.2.5 |
| Samsung | Agree with chair’s initial assessment and same understanding with Nokia (but AI 7.2.5). |
| vivo | Agree with the initial assessment. The RAN2 agreement will be taken into consideration in Rel-16 URLLC session. |

### R1-2106410, LS on update for MCCH design, RAN2 (Huawei)

|  |  |
| --- | --- |
| **Initial assessment** | Email discussion under agenda item 8.12. |
| **Relevant tdocs (if any)** | R1-2107387 (CMCC), R1-2107513 (MediaTek), R1-2108066 (Huawei, HiSilicon), R1-2108067 (Huawei, HiSilicon) |
| **Company** | **Views (if any)** |
| Nokia | To be taken into account in AI 8.12. A need for reply LS depends on the outcome of those discussions. |
| Samsung | No immediate RAN1 response is required. |
| vivo | Agree with Nokia’s view. |
| OPPO | Agree with the initial assessment |
| Futurewei | The relevant feature lead for 8.12 should take the agreements into considerations on impact to RAN1. |

### R1-2106411, LS to RAN1 on UL positioning in RRC\_INACTIVE, RAN2 (Intel)

|  |  |
| --- | --- |
| **Initial assessment** | Email discussion under agenda item 8.5. |
| **Relevant tdocs (if any)** | R1-2107177 (ZTE), R1-2108191 (Huawei, HiSilicon) |
| **Company** | **Views (if any)** |
| Nokia | No LS response needed. To be taken into account in AI 8.5. May not require a separate email thread. |
| Samsung | No immediate RAN1 response is required. |
| vivo | Agree with Nokia’s view. |
| OPPO | It seems no RAN1 action is needed for this LS since it only tells the current status of RAN2 discussion. Thus, no email discussion is needed for it.  For the SRS transmission of a UE with inactive state, it is in the scope of AI 8.5. If RAN1 makes some agreement to send an LS to RAN2, then a new RAN1 LS can be sent out, but it is not directly related to this LS. |
| Futurewei | This is important for RAN1 to proceed with UL positioning in Inactive state. RAN1 has been waiting for this decision. |

### R1-2106412, LS to RAN1 on parameters for on-demand PRS, RAN2 (Intel)

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| --- | --- |
| **Initial assessment** | Email discussion under agenda item 8.5. |
| **Relevant tdocs (if any)** | R1-2106780 (ZTE), R1-2107219 (OPPO), R1-2108192 (Huawei, HiSilicon) |
| **Company** | **Views (if any)** |
| Nokia | A reply LS is needed. To be taken in AI 8.5 |
| Samsung | Agree with chair’s initial assessment. |
| vivo | Agree with the initial assessment. Vivo’s contribution on this issue was submitted to AI 8.5.6 “Discussion on inactive state positioning and on-demand PRS” |
| OPPO | Agree with the initial assessment |
| Futurewei | Agree with Chair’s recommendation. |

### R1-2106413, LS on time gap information in SCI, RAN2 (OPPO)

|  |  |
| --- | --- |
| **Initial assessment** | Email discussion under agenda item 8.11. |
| **Relevant tdocs (if any)** | R1-2106850 (Samsung), R1-2106923 (CATT, GOHIGH), R1-2107226 (OPPO), R1-2107227 (OPPO), R1-2107304 (Qualcomm), R1-2107532 (LG Electronics), R1-2107700 (Apple), R1-2107703 (Apple), R1-2107891 (Xiaomi), R1-2107957 (vivo), R1-2108130 (Ericsson), R1-2108135 (Ericsson), R1-2108181 (Nokia, Nokia Shanghai Bell), R1-2108185 (Huawei, HiSilicon) |
| **Company** | **Views (if any)** |
| Nokia | A reply LS is needed. To be taken in AI 8.11 |
| Samsung | Agree with chair’s initial assessment. |
| vivo | Agree with the initial assessment. |
| OPPO | Agree with the initial assessment |
| Futurewei | Agree |

### R1-2106414, LS Reply on TCI State Update for L1/L2-Centric Inter-Cell Mobility, RAN2 (Samsung)

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| --- | --- |
| **Initial assessment** | Email discussion under agenda item 8.1. |
| **Relevant tdocs (if any)** | R1-2106777 (ZTE), R1-2106852 (Samsung), R1-2107070 (Lenovo, Motorola), R1-2107283 (OPPO), R1-2107696 (Apple), R1-2107813 (LG Electronics), R1-2107963 (vivo), R1-2108063 (Huawei, HiSilicon) |
| **Company** | **Views (if any)** |
| Nokia | Email discussion thread needed, a potential reply LS depends on the outcome of the discussion. To be taken in AI8.1 |
| Samsung | Agree with chair’s initial assessment. |
| vivo | Agree with the initial assessment. |
| OPPO | Agree with the initial assessment |
| Futurewei | Agree with the initial assessment. Whether a reply LS is needed depends on the outcome of the discussion in AI8.1. |

### R1-2106418, Reply LS to RAN1 LS on TCI State Update for L1/L2-Centric Inter-Cell Mobility, RAN3 (Samsung)

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| --- | --- |
| **Initial assessment** | Email discussion under agenda item 8.1. |
| **Relevant tdocs (if any)** | R1-2106778 (ZTE), R1-2106853 (Samsung), R1-2107071 (Lenovo, Motorola), R1-2107284 (OPPO), R1-2107697 (Apple) , R1-2107963 (vivo), R1-2107964 (vivo), R1-2108064 (Huawei, HiSilicon) |
| **Company** | **Views (if any)** |
| Nokia | Email discussion thread needed, a potential reply LS depends on the outcome of the discussion. To be taken in AI8.1 |
| Samsung | Agree with chair’s initial assessment. |
| vivo | Agree with the initial assessment. |
| OPPO | Agree with the initial assessment |
| Futurewei | Agree with the initial assessment. Whether a reply LS is needed depends on the outcome of the discussion in AI8.1. |

### R1-2106419, LS on IAB resource multiplexing, RAN3 (Huawei)

|  |  |
| --- | --- |
| **Initial assessment** | Email discussion under agenda item 8.10. |
| **Relevant tdocs (if any)** | R1-2107968 (vivo), R1-2108110 (Ericsson), R1-2108111 (Ericsson) |
| **Company** | **Views (if any)** |
| Nokia | Email discussion thread needed and a reply LS needed. To be taken in AI8.10.1 |
| Samsung | Agree with chair’s initial assessment. |
| vivo | Agree with the initial assessment. |

### R1-2106420, LS on Inter-donor migration, RAN3 (Samsung)

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| --- | --- |
| **Initial assessment** | Email discussion under agenda item 8.10. |
| **Relevant tdocs (if any)** | R1-2107827 (ZTE, Sanechips), R1-2107969 (vivo), R1-2108062 (Huawei, HiSilicon), R1-2108069 (Huawei, HiSilicon) |
| **Company** | **Views (if any)** |
| Nokia | Email discussion thread needed, a reply LS needed. To be taken in AI8.10.1 |
| Samsung | Agree with chair’s initial assessment. |
| vivo | Agree with the initial assessment. |

### R1-2106422, Reply LS on Rel-17 uplink Tx switching, RAN4 (China Telecom)

|  |  |
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| **Initial assessment** | Noted. No subsequent email discussion needed. |
| **Company** | **Views (if any)** |
| Nokia | Agree with the initial assessment. |
| Samsung | Agree with chair’s initial assessment. |
| Nokia | Agree with the initial assessment. |
| OPPO | Agree with the initial assessment |

### R1-2106423, Reply LS on PUCCH and PUSCH repetition, RAN4 (Qualcomm)

|  |  |
| --- | --- |
| **Initial assessment** | Email discussion under agenda item 8.8. |
| **Relevant tdocs (if any)** | R1-2106786 (ZTE), R1-2107547 (LG Electronics), R1-2107959 (vivo), R1-2108177 (Ericsson), R1-2108193 (Huawei, HiSilicon) |
| **Company** | **Views (if any)** |
| Nokia | To be discussed in AI 8.8.1.3. |
| Samsung | Need an email discussion under AI 8.8.1.3. |
| vivo | Agree with the initial assessment. |

### R1-2106424, LS on maximum UE EIRP and conducted power, RAN4 (Intel)

|  |  |
| --- | --- |
| **Initial assessment** | Noted. No subsequent email discussion needed. |
| **Company** | **Views (if any)** |
| Nokia | Agree with the initial assessment. |
| Samsung | Agree with chair’s initial assessment. |
| vivo | Agree with the initial assessment. |
| OPPO | This is a response LS from RAN4, RAN1 should take RAN4 responses into account in the discussion for AI 8.2.3 in this meeting. |

### R1-2106425, LS on 60 GHz Time-related issues RAN4 (Apple)

|  |  |
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| **Initial assessment** | Noted. No subsequent email discussion needed. |
| **Company** | **Views (if any)** |
| Nokia | Agree with the initial assessment. |
| Samsung | Agree with chair’s initial assessment. |
| vivo | Agree with the initial assessment. |
| OPPO | This is a response LS from RAN4, RAN1 should take RAN4 responses into account in the discussion for AI 8.2 in this meeting. |

### R1-2106426, Reply LS on L1/L2 centric inter-cell mobility RAN4 (Samsung)

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| **Initial assessment** | Email discussion under agenda item 8.1. |
| **Relevant tdocs** | R1-2106854 (Samsung), R1-2107072 (Lenovo, Motorola), R1-2107285 (OPPO), R1-2107698 (Apple), R1-2107965 (vivo) R1-2108065 (Huawei, HiSilicon) |
| **Company** | **Views (if any)** |
| Nokia | Agree with the initial assessment. |
| Samsung | Agree with chair’s initial assessment. |
| vivo | Agree with the initial assessment. |
| OPPO | Agree with the initial assessment |
| Futurewei | Agree with the initial assessment. |

### R1-2106427, Reply LS on temporary RS for efficient SCell activation in NR CA, RAN4 (Huawei)

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| --- | --- |
| **Initial assessment** | Noted. No subsequent email discussion needed. |
| **Company** | **Views (if any)** |
| Nokia | Agree with the initial assessment. |
| Samsung | Agree with chair’s initial assessment. |
| vivo | Agree with the initial assessment. |
| Futurewei | Agree with the initial assessment. |

### R1-2106428, Response LS on NTN UL frequency synchronization requirements, RAN4 (CATT)

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| **Initial assessment** | Noted. No subsequent email discussion needed. |
| **Company** | **Views (if any)** |
| Nokia | Agree with the initial assessment. |
| Samsung | Agree with chair’s initial assessment. |
| vivo | Agree with the initial assessment. |
| OPPO | This is a response LS from RAN4, RAN1 should take RAN4 responses into account in the discussion for AI 8.4.2 in this meeting. |

### R1-2106429, Reply LS on timing assumption for inter-cell DL measurement, RAN4 (Samsung)

|  |  |
| --- | --- |
| **Initial assessment** | Noted. No subsequent email discussion needed. |
| **Company** | **Views (if any)** |
| Nokia | Agree with the initial assessment. |
| Samsung | Agree with chair’s initial assessment. |
| vivo | Agree with the initial assessment. |
| Futurewei | Agree with the initial assessment. |

### R1-2106430, LS on synchronous operation between Uu and SL in TDD band n79, RAN4 (CATT)

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| **Initial assessment** | Email discussion under agenda item 8.11. |
| **Relevant tdocs (if any)** | R1-2106851 (Samsung), R1-2107306 (Qualcomm), R1-2107531 (LG Electronics), R1-2107701 (Apple), R1-2107704 (Apple), R1-2107892 (Xiaomi), R1-2107956 (vivo), R1-2108059 (OPPO), R1-2107228 (OPPO), R1-2108075 (ZTE, Sanechips), R1-2108125 (Nokia, Nokia Shanghai Bell), R1-2108127 (Ericsson), R1-2108134 (Ericsson), R1-2108187 (Huawei, HiSilicon) |
| **Company** | **Views (if any)** |
| Nokia | Agree with the initial assessment. |
| Samsung | Agree with chair’s initial assessment. |
| vivo | Agree with the initial assessment. |
| OPPO | Agree with the initial assessment |

### R1-2106431, LS on UL MIMO coherence for Tx switching between two carriers, RAN4 (China Telecom)

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| --- | --- |
| **Initial assessment** | Email discussion under agenda item 7.2.6. |
| **Relevant tdocs (if any)** | R1-2106786 (ZTE), R1-2107307 (Qualcomm), R1-2107960 (vivo), R1-2107961 (vivo) R1-2107962 (vivo) |
| **Company** | **Views (if any)** |
| Nokia | This doesn’t seem to be a Rel-16 MIMO LS, but related to Tx switching done in NR\_RF\_FR1-Core. Should be addressed in AI 7.2.12. |
| Samsung | Email discussion is needed under AI 7.2.12. |
| vivo | Agree with Nokia that AI 7.2.12 may be more appropriate. |
| OPPO | It should be discussed in Section 7.2.12 Others |

### R1-2106435, LS on determination of location estimates in local co-ordinates, SA2 (Ericsson)

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| --- | --- |
| **Initial assessment** | Email discussion under agenda item 8.5. |
| **Relevant tdocs (if any)** | R1- 2107966 (vivo), R1-2108068 (Huawei, HiSilicon) |
| **Company** | **Views (if any)** |
| Nokia | Email discussion thread needed, a potential reply LS depends on the outcome of the discussion. To be taken in AI8.5. |
| Samsung | Agree with chair’s initial assessment. |
| vivo | Agree with the initial assessment. |

### R1-2106437, LS on 5 GHz channel access mechanism, ETSI TC BRAN

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| --- | --- |
| **Initial assessment** | Noted. No subsequent email discussion needed. |
| **Company** | **Views (if any)** |
| Nokia | Agree with the initial assessment. |
| Samsung | Agree with chair’s initial assessment. |
| vivo | Agree with the initial assessment. |

## Incoming LSs “CC: RAN1”

All the following LSs are noted. No actions from RAN1 unless explicitly requested.

R1-2106415 Reply LS on PDB for new 5QI RAN2 (Ericsson)

R1-2106416 Reply LS on Time Synchronization assistance parameters RAN2 (Nokia)

R1-2106417 LS on On-demand PRS RAN2, Ericsson

R1-2106421 Response LS on Exchange of information related to SRS-RSRP measurement resource configuration for UE-CLI RAN3 (ZTE)

R1-2106432 LS on RAN4 recommendation for the 52.6 - 71 GHz frequency range designation RAN4 (Huawei)

R1-2106433 LS on Rel-16 updated RAN4 UE features lists for LTE and NR RAN4 (CMCC)

R1-2106434 Reply LS on the intra-band and inter-band (NG)EN-DC or NE-DC Capabilities RAN4 (ZTE Corporation)

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| --- | --- |
| **Initial assessment** | Noted. No subsequent email discussion needed. |
| **Relevant tdocs (if any)** | R1-2106727 (ZTE), R1-2106728 (ZTE), R1-2107967 (vivo) |
| **Company** | **Views (if any)** |
| Nokia | Agree with the initial assessment. |
| Samsung | Agree with chair’s initial assessment. |
| vivo | An related RAN2 LS [R1-2104162](file:///C:\wanshic\OneDrive%20-%20Qualcomm\Documents\Standards\3GPP%20Standards\Meeting%20Documents\TSGR1_105\Docs\R1-2104162.zip) was treated but delayed in RAN#105e due to lack of RAN4 input, therefore we should treat this topic and respond to RAN2. |

R1-2106436 Response LS on Scheduling Location in Advance to reduce Latency SA2 (CATT)

## Others

### R1-2100021 (from RAN1#104-e), LS to RAN1 on SL DRX design, RAN2 (ZTE)

|  |  |
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| **Initial assessment** | Email discussion under agenda item 8.11. |
| **Relevant tdocs (if any)** | R1-2106922 (CATT, GOHIGH), R1-2107705 (Apple), R1-2107958 (vivo), R1-2108078 (ZTE, Sanechips), R1-2108079 (ZTE, Sanechips), R1-2108128 (Ericsson), R1-2108133 (Ericsson), R1-2108178 (Nokia, Nokia Shanghai Bell), R1-2108179 (Nokia, Nokia Shanghai Bell), R1-2108186 (Huawei, HiSilicon) |
| **Company** | **Views (if any)** |
| Nokia | A reply LS needed and related discussion needed. To be taken in AI 8.11. |
| Samsung | Agree with chair’s initial assessment. |
| vivo | Agree with the initial assessment. |
| OPPO | Agree with the initial assessment |
| Futurewei | Agree with the initial assessment. |

# Conclusions

All incoming LSs are noted. The following incoming LSs will be further discussed for possible RAN1 action in RAN1#106-e.

TBD: List of email threads