**3GPP TSG-RAN WG3 Meeting #114bis electronic R3-221057**

**Online, Jan 17-26 2022**

**Agenda Item: 18.1**

**Source: CMCC (moderator)**

**Title: Summary of CB: # AIRAN1\_General**

**Document for: Discussion and Decision**

# 1 Introduction

**CB: # AIRAN1\_General**

**- Check LS from SA5**

**- Check work plan in** [**R3-220881**](file:///C%3A%5CUsers%5Cyanru.wang%5CDocuments%5CASRT%5CNSL%5C1.%20RAN3%20meeting%5CRAN3%20114e-bis%5Coffline%20discussion%5CCB%20%23%20AIRAN1_General%5CInbox%5CR3-220881.zip)**, revision if needed**

**- Endorse the updated TR if agreeable**

**- Focus on the discussion on the standard impacts on each use cases in the last two e-meetings in R17**

(CMCC - moderator)

Summary of offline disc [R3-221057](file:///C%3A%5CUsers%5Cyanru.wang%5CDocuments%5CASRT%5CNSL%5C1.%20RAN3%20meeting%5CRAN3%20114e-bis%5Coffline%20discussion%5CCB%20%23%20AIRAN1_General%5CInbox%5CR3-221057.zip)

The deadline for the first phase of the email discussion is 23:59UTC, Wednesday, January 19.

# 2 For the Chairman’s Notes

**Proposal 1: Endorse draft TR as BL and note the work plan.**

**Proposal 2: Focus on the discussion on the standard impacts on each use case in the last two e-meetings in R17.**

# 3 Discussion

As per the guidance from the chair, the first round of the CB will be structed as follows:

* Check work plan in [R3-220881](file:///C%3A%5CUsers%5Cyanru.wang%5CDocuments%5CASRT%5CNSL%5C1.%20RAN3%20meeting%5CRAN3%20114e-bis%5Coffline%20discussion%5CCB%20%23%20AIRAN1_General%5CInbox%5CR3-220881.zip), revision if needed; Endorse the updated TR if agreeable
* Check LS from SA5
* Discuss the way forwards from R3-220833:
* Focus on the discussion on the standard impacts on each use cases in the last two e-meetings in R17
* Focus on the standard impacts of trajectory prediction and resource status prediction for reducing duplicated normative work in Rel18 WI.

## 3.1 Work plan and draft TR

Moderator think we can endorse draft TR as BL and note the work plan. In case companies have any comments, please indicate in following table:

|  |  |  |
| --- | --- | --- |
| **Company** | **Yes/No** | **Reasons/Comments/Suggestions** |
| NEC | Yes | Agree to endorse draft TR as BL and note the work plan. |
| Lenovo, Motorola Mobility | Yes |  |
| Samsung | Yes |  |
| CMCC | Yes |  |
| Nokia | Yes |  |

**Moderator’s summary**

All companies agree to endorse draft TR as BL and note the work plan.

**Proposal 1: Endorse draft TR as BL and note the work plan.**

## 3.2 LS from SA5

Following is the LS reply on model deployment and update from OAM to NG-RAN:

*SA5 understands the RAN3 requirements for OAM to deploy and update the AI/ML model to NG-RAN to support RAN intelligence. SA5 would like to inform RAN3 about the following relevant work in SA5:*

*- The ML model training is being defined as part of on-going Rel-17 work;*

*- SA5 will also study other AI/ML management capabilities (including model validation, testing, deployment, etc) for supporting the AI-enabled functions (including RAN intelligence) in Rel-18. In the study, SA5 plans to make it a first priority to address the AI/ML model management capabilities to support AI/ML in NG-RAN for the scenario where the AI/ML model training is in the OAM and inference is in NG-RAN. The corresponding Rel-18 SID has been agreed at SA5#140e.*

In case companies have any comments on the LS, please indicate in following table:

|  |  |  |
| --- | --- | --- |
| **Company** | **Yes/No** | **Reasons/Comments/Suggestions** |
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**Moderator’s summary**

No comment received for the LS.

## 3.3 Way forwards from R3-220833

In R3-220833 [2], it is suggested to focus on the discussion on the standard impacts on each use cases in the next 2 meetings. Whether to introduce new signaling or reuse existing procedure to carry these AI/ML related information should be considered for subsequent R18 WI.

**Q1: Companies are invited to provide views on whether to focus on the discussion on the standard impacts on each use cases in the next 2 meetings?**

|  |  |  |
| --- | --- | --- |
| **Company** | **Yes/No** | **Reasons/Comments/Suggestions** |
| NEC |  | We definitely support timely finalization of this study item. However, current discussion is already quite focused on finalizing of standard impacts on three identified use cases. Not sure additional limitation of discussion topics is needed. |
| ZTE | Yes | In the TR, we can see that the solution on each use cases are separated into user description, solution, input information, output information, and feedback information. The input information would be collected from UE, RAN node and neighbouring RAN nodes, so it is sure that standard impacts involve Xn interface, Uu interface, and even F1 interface taking CU-DU split architecture into account. Whether to introduce new signaling or reuse existing procedure to carry these AI/ML related information should be considered for subsequent R18 WI. Therefore, we suggest to focus on the discussion on the standard impacts on each use cases in the next 2 meetings. |
| Lenovo, Motorola Mobility | Yes |  |
| Samsung | Yes |  |
| CMCC | Yes |  |
| Nokia | Yes |  |
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**Moderator’s summary**

All companies agree to focus on the discussion on the standard impacts on each use cases in the last two e-meetings in R17.

**Proposal 2: Focus on the discussion on the standard impacts on each use case in the last two e-meetings in R17.**

Furthermore, it is observed in [2] that three prioritized use cases all involve the predicted UE mobility/trajectory and predicted resource status. And, it seems that UE mobility/trajectory prediction and resource status prediction could be regarded as the common AI/ML cases. Therefore, it is proposed that RAN3 to focus on discussion on the standard impacts of trajectory prediction and resource status prediction for reducing duplicated normative work in Rel18 WI.

**Q2: Companies are invited to provide views on whether to focus on the standard impacts of trajectory prediction and resource status prediction for reducing duplicated normative work in Rel18 WI?**

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| --- | --- | --- |
| **Company** | **Yes/No** | **Reasons/Comments/Suggestions** |
| NEC |  | Three use cases have been prioritized and agreed. UE mobility/trajectory and resource status are rather potential inputs for the prioritized use cases, not separate use cases. |
| ZTE | Yes | In current discussion phase, we can see that each prioritized use case involve UE trajectory prediction and resource status prediction. We recommend to conclude the standard impacts for these two prediction after the standard impacts for each uses is mature for reducing duplicated normative work. |
| Lenovo, Motorola Mobility | Yes |  |
| Samsung |  | Same view as NEC. Trajectory prediction and resource status prediction are the input for three use case instead of standalone use case. To avoid duplicated work, it is better to do the coordination among three prioritized use cases. |
| Nokia | Not sure | The question is a bit confusing but in our view trajectory prediction and resource status prediction are enablers for the prioritized use cases and not use cases. So if the question is avoiding duplicated normative work in Rel.18 WI, this could be achieved if coordination is done on a per use case basis. |
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**Moderator’s summary**

It is observed that no consensus could be achieved on whether to focus on the standard impacts of trajectory prediction and resource status prediction.

# 4 Conclusion, Recommendations

**Proposal 1: Endorse draft TR as BL and note the work plan.**

**Proposal 2: Focus on the discussion on the standard impacts on each use case in the last two e-meetings in R17.**

# 5 Reference

1. R3-220133 LS Reply on model deployment and update from OAM to NG-RAN (SA5)
2. R3-220833 Consideration on AIML RAN in R17 SI (ZTE Corporation, Lenovo, Motorola Mobility, China Unicom)
3. R3-220881 Work plan for Study on enhancement for data collection for NR and EN-DC (CMCC)
4. R3-221014 TR37.817 v1.1.0 (CMCC)