3GPP TSG-RAN WG3 Meeting #128 R3-253825

Saint Julian’s, Malta, 19 – 23 May, 2025

**Agenda item: 11.3**

**Source: Nokia - moderator**

**Title: Summary of discussions on CB: # AIRAN2\_CCO**

**Document for: Approval**

# 1 Introduction

This paper provides summary of discussions at RAN3#125 on:

**CB: # AIRAN2\_CCO**

**- Work on the TPs based on the agreement above**

**- Check the open issues as above**

(moderator - Nok)

# 2 For the Chairman’s Notes

**WA: Specify mechanisms (F1, Xn) to update/cancel a prediction, no new IE is needed to identify the previous prediction (affected cells and beams will identify the previously signalled issue). Addition of new code-point in predicted coverage modification cause (Xn) / predicted CCO issue (F1), with details FFS.**

Agree F1AP TP in 3825 (CATT)

# 3 Discussion

## 3.1 Work on TPs

Agreement to be taken into account for the TPs:

**Adopt Opt2.**

**Stage 3:**

Starting point can use F1AP TP in annex of 3531?

**Stage 2:**

Is stage 2 for this agreement relevant at this meeting? If so is there any starting point?

## 3.2 Open issue: Timing information for predicted CCO issue over Xn

From online discussion:

**Timing information for predicted CCO issue over Xn is not needed?**

HW, Orange, Rakuten, FiberCop, E///, Jio: Yes, it can be used for the target node understand the valid time of CCO issue and for future evaluation

CATT, NEC, Nok, ZTE, SS, LGE: No, future CCO status will be used by the target to deduce the CCO statue. There is no need to transfer two timer information.

Used for:

* **For purpose of determine when to apply the matching coverage state change –** 
  + Create additional flexibility for when to apply changes?
  + Ensure the same flexibility as in legacy CCO
    - Provide an upper boundary?
    - Stage 2 solution is possible?

E///: The point in time of predicted issue constitutes the upper boundary for the

CATT: best effort approach in target to align on timing of change in source? Avoid creating additional issues (coverage or cell edge capacity) linked to delayed application.

Samsung: no need to create upper boundary.

ZTE: if boundary is needed, it would also have been needed in legacy CCO. Legacy CCO is best effort,

NEC: will be up to implementation how to react to this information

HW: need additional information in order to know when to apply

Ofinno: the issue occurs in the source node. The issue itself is less relevant in the target node.

ZTE: possible compromise: single time information

DT: not needed, but include it as optional without specification

* **To determine when to trigger collection of UE performance**

Ofinno: needs further evaluation whether this info is useful for collection of feedback

CATT: the issue doesn’t materialize in the target cell, so not needed. Also in legacy there was no information when the issue occurred (this info is not known).

NEC: don’t see the need

E///: the issue occurs gradually, so emergence of the issue is difficult to detect, hence additional timing info is useful

QC: can we keep this open until next meeting?

Fibercop: add the IE

ZTE: should not specify this for performance collection

Way forward: Include additional timing information. Specify that this information may be used to determine timing for performance feedback collection.

**Outcome of the discussion: No consensus**

## 3.3 Open issue: Potential need for addition of update or cancel of predicted CCO issue and/or future CCO state

Use legacy mechanism:

**Current mechanism enables the update of predicted CCO issue and/or future CCO state.**

**A new detected CCO issue/a new predicted CCO issue for the same affected cells and beams after a predicted CCO issue will cancel the prediction.**

This is a replace mechanism?

Samsung: No need to invalidate a predicted issue. We don’t have

NEC:

Ofinno: replacement mechanism will be specific for CCO, would be useful

CATT:

Lenovo: How to interpret two successive predictions for different times for the same cell/beams?

E///:

Enhanced mechanism:

**Check the scenario whether has the possibility that there will be isolated multiple CCO issues detected for different cells or beams? Specific Cancel towards each CCO issue is needed?**

**WA: Specify mechanisms (F1, Xn) to update/cancel a prediction, no new IE is needed to identify the previous prediction (affected cells and beams will identify the previously signalled issue). Addition of new code-point in predicted coverage modification cause (Xn) / predicted CCO issue (F1), with details FFS.**

# 4 Conclusion, Recommendations [if needed]

If needed

# 5 References

[1] R3-24xxxx, Title, Company