3GPP TSG-RAN WG3 #124 R3-24xxxx

Fukuoka, Japan, 20th – 24th May, 2024

Agenda Item: 11.2

Source: CATT

Title: TP to TR 38.743 on support of AI/ML enabled slicing

Document for: Discussion

# Introduction

The contribution provides TP toward TR 38.473 based on the following conclusion made during offline discussion:

**Agree to improve the granularity of UE performance feedback in Rel-19 for slicing.**

# TP for TR38.743

4.1.2.4 Input data of AI/ML based Network Slicing:

To predict the optimized network slicing decisions, a gNB may need the following information as input data for AI/ML-based network slicing:

From local node:

- Measured/Predicted radio resource status per slice

- Measured/Predicted slice available capacity

- Legacy predicted UE trajectory

From neighbouring gNBs:

- Measured/Predicted radio resource status per slice

- Measured/Predicted slice available capacity

From the UE:

- UE measurement report (e.g., UE RSRP, RSRQ, SINR measurement, etc), including cell level and beam level UE measurements

4.1.2.5 Output data of AI/ML based Network Slicing:

AI/ML-based network slicing model in a gNB can generate following information as output:

* Predicted radio resource status per slice
* Predicted slice available capacity
* Resource management decisions for resources within RRM policies (used by gNB internally)
* Slice aware mobility decisions (used by gNB internally)

4.1.2.6 Feedback of AI/ML based Network Slicing:

To optimize the performance of AI/ML-based network slicing model, following feedback can be considered to be collected from gNBs:

* Measured Radio resource status per slice
* Measured Slice available capacity
* Finer granularity UE performance feedback for those UEs handed over from the source gNB.FFS on the exact granularity of UE performance feedback.

4.1.2.7 Potential standard impacts:

Following standard impacts is listed for subsequent Rel-19 normative work compared with what was specified during Rel-18.

Xn interface:

* Enhanced existing procedure to collect predicted information between gNBs:
  + Predicted radio resource status per slice
  + Predicted slice available capacity
  + Finer granularity UE performance feedback. FFS on the exact granularity of UE performance feedback.