**3GPP TSG-RAN WG3 Meeting #119 *R3-231000***

**Athens, Greece, Feb. 27 – Mar. 3, 2023**

**Title:** (TP for AI&ML BLCR for TS38.300) Stage 2 updates on the introduction of RAN AI/ML

**Source:** Huawei

**Agenda item:** 12.2.1

**Document Type:** Discussion and decision

# 1. Introduction

This TP tries to reflect the general agreements reached in this meeting:

**Solutions for AI/ML information exchange over the NG interface are not considered as part of Rel-18.**

**The agreed class 1 procedure (AI/ML INFORMATION REQUEST/RESPONSE, which name is FFS) is used to configure UE performance feedback reporting.**

# 2. Annex - 1: TP to 38.300

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Start of Change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

## X.X AI/ML for NG-RAN

### X.X.1 General

AI/ML for NG-RAN, as a RAN internal function, is achieved by using Artificial Intelligence (AI) and Machine Learning (ML) techniques.

The objective of AI/ML for NG-RAN is to improve network performance and user experience, through analysing the data collected and autonomously processed by the NG-RAN, which can yield further insights, e.g., for Network Energy Saving, Load Balancing, Mobility Optimization.

### X.X.2 Mechanisms and Principles

The AI/ML function requires inputs from neighbour NG-RAN nodes (e.g. predicted information, feedback information, measurements) and/or UEs (e.g. measurement results), in support to AI/ML processes such as AI/ML Model Inference and AI/ML Model Training.

AI/ML algorithms and models are out of 3GPP scope, and the details of model performance feedback are also out of 3GPP scope.

For the deployments of RAN intelligence, following scenarios may be supported:

• AI/ML Model Training is located in the OAM and AI/ML Model Inference is located in the gNB.

• AI/ML Model Training and AI/ML Model Inference are both located in the gNB.

For the scenario where AI/ML model training is located in the OAM, the inputs will be sent to OAM from NG-RAN directly which is in the scope of SA5. For the scenario where the necessary AI/ML related information to be exchanged between RAN nodes, such info, e.g. AI/ML predictions as mentioned above, could be transferred either via use case agnostic AI/ML dedicated procedures or legacy procedures, pending on different use case. The legacy information (e.g. performance measurements) could be transferred via existing legacy procedures, e.g. HO procedure.

UE performance feedback reporting is configured through an AI/ML dedicated request/response procedure.

Solutions for AI/ML information exchange over the NG interface are not considered in this release of the specification.

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