3GPP TSG-RAN3 Meeting #129bis R3-25xxxx

Prague, CZ, 13-17 October, 2025

Agenda Item: 12.2.1

Source: ZTE Corporation

Title: (TP to TR 38.745) Consideration on Multiple-hop UE trajectory

Document for: Text Proposal

# Text Proposal

<<<<<<<<<<<<<<<<<<<< First Changes >>>>>>>>>>>>>>>>>>>>

# 1 Scope

The present document provides the description and investigation of new AI/ML based use cases, i.e., multiple-hop UE trajectory, AI/ML assisted intra-CU LTM, and other handover enhancements.

<<<<<<<<<<<<<<<<<<<< Next Change >>>>>>>>>>>>>>>>>>>>

4.1 Multiple-hop UE trajectory

4.1.1 Use case description

*Editor’s Note: Capture the description of use case*

In Rel-18, the cell-based UE trajectory prediction is limited to the first-hop target NG-RAN node.

Multi-hop predicted UE trajectory across gNBs consists of a list of cells belonging to one or more gNBs where the UE is expected to connect and these cells are listed in chronological order.

For the measured multi-hop UE trajectory across gNBs, the collected measurement results should be forwarded to the initial gNB. This allows the initial gNB to evaluate and analyze the end-to-end performance of the trajectory prediction and mobility optimization.

### 4.1.2 Solutions and standard impacts

*Editor’s Note: Capture the solutions for the use case, including potential standard impacts on existing Nodes, functions, and interfaces*

#### 4.1.2.1 Locations for AI/ML Model Training and AI/ML Model Inference

The following solutions are considered for supporting multi-hop UE trajectory:

 - 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.

In case of CU-DU split architecture, the following solutions are possible:

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

 - AI/ML Model Training and Model Inference are both located in the gNB-CU.<<<<<<<<<<<<<<<<<<<< End of Changes >>>>>>>>>>>>>>>>>>>>