**3GPP TSG-RAN WG3 #122 R3-23xxxx**

**Chicago, USA, 13th – 17th Nov, 2023**

Agenda Item: 12.2.2.2

Source: CATT

Title: TP to BLCR for TS 38.423 on AI/ML based mobility optimization

Document for: Approval

# Introduction

According to the discussion in R3-237798, we provide TP to BLCR for TS 38.423.

# TP to 38.423

### 8.4.AA Data Collection Reporting Initiation

#### 8.4.AA.1 General

This procedure is used by an NG-RAN node to request the reporting of information to another NG-RAN node to support, e.g., AI/ML in NG-RAN.

The procedure uses non UE-associated signalling.

Editor’s Note: FFS other information that can be requested using this procedure.

Editor’s Note: FFS content of AL/ML related information.

#### 8.4.AA.2 Successful Operation



Figure 8.4.AA.2-1: Data Collection Reporting Initiation, successful operation

NG-RAN node1 initiates the procedure by sending the DATA COLLECTION REQUEST message to NG-RAN node2 to start information reporting or to stop information reporting. Upon receipt, NG-RAN node2:

- shall initiate the requested information reporting according to the parameters given in the request in case the *Registration Request* IE is set to “start”; or

- shall stop all measurements and predictions and terminate the reporting in case the *Registration Request* IE is set to “stop”; or

- FFS

If the *Registration Request* IE is set to “start” in the DATA COLLECTION REQUEST message and the *Report Characteristics* IE indicates cell-specific information reporting, the *Cell To Report List* IE shall be included.

If NG-RAN node2 is capable of providing all of the requested information, it shall initiate the information reporting as requested by NG-RAN node1 and respond with the DATA COLLECTION RESPONSE message.

If NG-RAN node2 is capable of providing some but not all of the requested information, it shall initiate the information reporting for the admitted requested information and include the *Node* *Measurement Initiation Result List* IE or the *Per Cell* *Measurement Initiation Result List* IE or both in the DATA COLLECTION RESPONSE message.

If the *Reporting Periodicity* IE in the DATA COLLECTION REQUEST is present, this indicates the periodicity for the reporting ofconfigured measurement objects. The NG-RAN node2 shall report only once, unless otherwise requested within the *Reporting Periodicity* IE.

If the *Requested Prediction Time* IE in the DATA COLLECTION REQUEST message is present, it indicates the specific point in time to which the prediction of the requested information applies. The NG-RAN node2 shall take it into account when generating the requested predicted information.

If the *UE Trajectory Collection Configurtion* IE is presentin the DATA COLLECTION REQUEST message, the NG-RAN node2 take it into account for the configuration of UE trajectory collection and reporting. NG-RAN node2 shall report the UE trajectory only one time.NG-RAN node2 shall terminate the collection when at least one of the following conditions is fulfilled:

* the time since UE was successfully handed over to NG-RAN node2 is equal to the value of the *Collection Time Duration* IE.
* the number of visited cells within NG-RAN node2 is equal to the value of the *Number of Visited Cells* IE, if included.
* UE moves to RRC\_INACTIVE or RRC\_IDLE state.
* UE is handed over to a cell belonging to an NG-RAN node different from NG-RAN node2,

The result of the UE trajectory collection is reported at the next available DATA COLLECTION UPDATE message.

If the *UE Performance Configuration* IE in the DATA COLLECTION REQUEST message is present, it indicates the configuration for the collection of UE performance. The NG-RAN node2 shall take it into account when collecting the UE performance.

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#### 9.2.3.Z Predicted Trajectory Cell Information

The *Predicted Trajectory Cell Information* IE contains the cell ID of the predicted NG-RAN cell for cell based UE trajectory prediction.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| CHOICE *Predicted Trajectory Cell Information* | M |  |  |  |
| >*NG-RAN Cell* |  |  |  |  |
| >>Global NG-RAN Cell Identity | M |  | 9.2.2.27 |  |
| >>Predicted Time UE Stays in Cell | O |  | INTEGER (0..4095) | The duration of time the UE is expected to stay in the cell, or set of NG-RAN cells, in seconds. If the duration is more than 4095s, this IE is set to 4095. |

///////////////////////////////////////////////////////////////////////skip unrelated///////////////////////////////////////////////////////////////////////

#### 9.2.3.P UE Trajectory Collection Configuration

ThisIE contains additional conditions triggering the target node to collect UE Trajectory after successful handover.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
| Collection Time Duration | M |  | INTEGER (1..4096) ( | The maximum time duration, in seconds, starting from successful handover execution. |
| Number of Visited Cells | O |  | INTEGER (1..16) | Maximum number of intra-node visited cells |

///////////////////////////////////////////////////////////////////////////skip unrelated///////////////////////////////////////////////////////////////////////////

### 9.3.5 Information Element definitions

<<<<<<<<<<<<<<<<<<<< Unmodified Text Omitted >>>>>>>>>>>>>>>>>>>>

-- A

AdditionalListofPDUSessionResourceChangeConfirmInfo-SNterminated ::= SEQUENCE (SIZE(1..maxnoofTargetSNsMinusOne)) OF AdditionalListofPDUSessionResourceChangeConfirmInfo-SNterminated-Item

AdditionalListofPDUSessionResourceChangeConfirmInfo-SNterminated-Item ::= SEQUENCE {

pDUSessionResourceChangeConfirmInfo-SNterminated PDUSessionResourceChangeConfirmInfo-SNterminated,

iE-Extensions ProtocolExtensionContainer { { AdditionalListofPDUSessionResourceChangeConfirmInfo-SNterminated-Item-ExtIEs} } OPTIONAL,

...

}

AdditionalListofPDUSessionResourceChangeConfirmInfo-SNterminated-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

AdditionalUETrajectoryReportConditions ::= SEQUENCE {

collectTimeDuration INTEGER (1..4096) OPTIONAL,

-- The IE is FFS --

numberOfHandovers INTEGER (1..16) OPTIONAL,

-- The IE is FFS --

iE-Extensions ProtocolExtensionContainer { { AdditionalUETrajectoryReportConditions-ExtIEs} } OPTIONAL,

...

}

AdditionalUETrajectoryReportConditions-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

...

}

<<<<<<<<<<<<<<<<<<<< End of Changes >>>>>>>>>>>>>>>>>>>>