3GPP TSG-RAN WG3 Meeting #128 R3-253797

Malta, MT, 19th – 23th May 2025

**Title:** (TP to TS 38.410 BL CR) New Release procedures and other aspects

**Source:** ZTE Corporation, China Telecom

Agenda item: 16.2

**Document for:** Discussion and Decision

# Introduction

The TPs are based on the following proposals.

* Remove the EN in section 4.3
* Remove the EN in section 4.4
* Update the last change in Section 4.4
* Take all submitted TPs into account, if applicable
* A-IoT Release function and procedure

# TP to TS38.410

<<<<<<<<<<<<<<<<<<<< First Change >>>>>>>>>>>>>>>>>>>>

## 3.1 Definitions

For the purposes of the present document, the terms and definitions given in TR 21.905 [1] and the following apply.   
A term defined in the present document takes precedence over the definition of the same term, if any, in TR 21.905 [1].

**AIOTF:** as defined in TS 23.xxx [xx].

**A-IoT CN node:** as defined in TS 38.300 [7].

**gNB**: as defined in TS 38.300 [7].

**NB-IoT:** as defined in TS36.300 [11].

**ng-eNB**: as defined in TS 38.300 [7].

**NG-RAN node**: as defined in TS 38.300 [7].

**UPF**: as defined in TS 23.501 [8].

## 3.2 Abbreviations

For the purposes of the present document, the terms and definitions given in TR 21.905 [1] and the following apply.   
A term defined in the present document takes precedence over the definition of the same term, if any, in TR 21.905 [1].

5GC 5G Core Network

A-IoT Ambient IoT

AIOTF Ambient IoT Function

AMF Access and Mobility Management Function

CIoT Cellular IoT

CN Core Network

DRX Discontinuous Reception

IoT Internet of Things

MBS Multicast/Broadcast Service

MT Mobile Terminated

NB-IoT Narrow Band Internet of Things

NG-U NG User plane interface

PTP Point to Point

PTM Point to Multipoint

QMC QoE Measurement Collection

QoE Quality of Experience

RIM Remote Interference Management

SMF Session Management Function

UP User Plane

UPF User Plane Function

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

## 4.3 NG interface specification objectives

The NG interface specification facilitates the following:

- inter-connection of NG-RAN nodes with AMFs supplied by different manufacturers;

- inter-connection of NG-RAN nodes with A-IoT CN nodes supplied by different manufacturers;

- separation of NG interface Radio Network functionality and Transport Network functionality to facilitate introduction of future technology.

4.4 NG interface capabilities

The NG interface supports:

- procedures to establish, maintain and release NG-RAN part of PDU sessions;

- procedures to perform intra-RAT handover and inter-RAT handover;

- the separation of each UE on the protocol level for user specific signalling management;

- the transfer of NAS signalling messages between UE and AMF;

- mechanisms for resource reservation for packet data streams;

- procedures to establish, maintain and release NG-RAN part of MBS sessions;

- the transfer of A-IoT NAS signalling messages between A-IoT device and AIOTF;

- procedures to establish, maintain and release NG-RAN part of A-IoT services.

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

## 5.31 Timing Synchronisation Status Reporting function

The Timing Synchronisation Status Reporting function enables the AMF to request the NG-RAN node to report the RAN timing synchronisation status information, and for the NG-RAN node to provide the RAN timing synchronisation status information to the AMF.

## 5.xx AIoT Service Management Function

The AIoT Service Management function is responsible for handling AIoT services.

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

## 6.27 Timing Synchronisation Status Reporting procedures

The following procedures are used to report the RAN timing synchronisation status information:

- Timing Synchronization Status;

- Timing Synchronization Status Report.

## 6.xx1 AIoT procedures

The following procedures are used for AIoT services:

- Inventory Request;

- Inventory Report;

- Command Request;

- AIOTF Initiated A-IoT Session Release;

- gNB initiated A-IoT Session Release Required.

<<<<<<<<<<<<<<<<<<<< Last Change >>>>>>>>>>>>>>>>>>>>

## 8.3 NG-RAN NG interface: NG application protocol (NGAP) (TS 38.413)

TS 38.413 [4] specifies the radio network layer signalling procedures of the control plane between the NG-RAN node and the AMF, or between the NG-RAN node and the A-IoT CN node.

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