3GPP TSG-RAN WG3 Meeting #124 R3-243862

**Fukuoka, Japan, 20-24 May, 2024**

Agenda Item: 12.2

Source: ZTE, China Telecom, Huawei, Nokia, Nokia Shanghai Bell, Ericsson

Title: (TP to TR 38.799) on other issues

Document for: other

# 1 Introduction

This contribution is to provide TP to TR 38.799 on miscellaneous issues according to the following CB:

CB: # WAB

* Resolve the FFS captured above
* Converge on the TPs below, where agreements taken above will be captured. If any more agreements are taken, they can be included in the TPs below:
  + TP for Architecture (Nokia)
  + TP for Integration procedure (Huawei)
  + TP for Authorization (CATT)
  + TP for Mobility (Ericsson)
  + TP for miscellaneous issues (ZTE)
    - WAB configuration
    - Etc
* SA2 reply LS (Qualcomm)
* (Moderator – Docomo)

Summary of offline disc in R3-243844

# Annex. TP for TR 38.799 V0.0.1

-------------------------------------------Start of changes-------------------------------------------

## 3.1 Terms

For the purposes of the present document, the terms 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].

BH-RAN-node: The NG-RAN node serving the WAB-MT.

BH-gNB: The gNB serving the WAB-MT.

BH-AMF: The AMF serving the WAB-MT.

BH-5GC: The 5GC serving the WAB-MT.

BH-UPF: The UPF serving the WAB-MT for backhauling.

UE´s 5GC: The 5GC connected to the WAB-gNB and serving the UEs.

UE´s AMF: The AMF connected to the WAB-gNB and serving the UEs.

UE´s UPF: The UPF connected to the WAB-gNB and serving the UEs.

-------------------------------------------Next change-------------------------------------------

## 4.3 Operational aspects

Editor Note:

- Impact of WAB mobility within an existing RAN (e.g., inter-gNB neighbour relations).

- Inter-gNB- and gNB-to-CN signalling to address the support of WAB.

### 4.3.x Configuration of WAB-nodes

Certain configurations of the WAB-node may need to be updated as the node moves, e.g.:

* The parameters that enable the WAB-gNB to select and connect to the AMF(s) to serve the UE(s) .
* The parameters that enable the WAB-gNB to connect to, and communicate with, the OAM system.
* The configuration parameters that the WAB-gNB should broadcast, e.g., the TAC(s), the cell ID(s), the RANAC(s).

A WAB-node may be provisioned with the parameters pertinent to different potential locations of the WAB-node.

Alternatively, the OAM can provision configuration parameters to the WAB-node based on the location of the node. In that case the continuity of OAM connectivity needs to be ensured as the WAB-node moves.

#### 4.3.x.1 IP address configuration for WAB-gNB

A WAB-MT obtains IP address(es) for the PDU sessions in the same manner as a legacy UE.

The WAB-gNB can use the IP address(es) of the WAB-MT for the PDU sessions that backhaul the NG, Xn and OAM traffic. The WAB-gNB supports security protection of NG and Xn via IPsec as defined by TS 33.501.

In case the WAB-gNB uses IPsec tunnel mode to protect the OAM, NG and/or Xn traffic, the allocation of the inner tunnel IP address(es) is outside of 3GPP scope.

It is possible to transport OAM, NG or Xn traffic over other types of tunnel protocols on top of the WAB-MT’s PDU session(s), e.g., such as L2TP. In this case, the WAB-gNB uses different IP address(es) from WAB-MT. Since the support of these tunnel protocols are not defined for NG and/or Xn, such tunnel protocols are out-of-scope of this study.

#### 4.3.x.2 TAC/RANAC (re-)configuration for WAB-gNB’s cell

The TAC/RANAC of WAB-gNB’s cell is configured by the OAM, and it can be reconfigured by the OAM during the mobility of WAB-node. The TAC/RANAC of the WAB-gNB’s cell may be the same as, or different than, the TAC/RANAC of the co-located WAB-MT’s serving cell. The TAC/RANAC broadcast by the WAB-gNB’s cell can be changed in order to reflect the WAB-node’s physical location.

### 4.3.y Resource multiplexing

In scenarios where WAB-node’s access link and backhaul link mutually interfere, resource coordination may be needed to facilitate the resource multiplexing for WAB-node’s access links and backhaul link. For this purpose, the resource coordination mechanism introduced for IAB can be considered as the starting point. For resource coordination between the access link and backhaul link, the BH-gNB may need to discover co-location of the WAB-MT and the WAB-gNB.

-------------------------------------------End of changes-------------------------------------------