3GPP TSG-RAN WG3 #123bis R3-24xxxxx

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Agenda Item: 12.2

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Title: TP for WAB general requirements and architecture

Document for: Agreement

# Introduction

This document provides a TP for WAB general requirements and architecture.

# Discussion

Proposal1: RAN3 to agree the TP for WAB general requirements and architecture in ANNEX.

# ANNEX (WAB TP for TR 38.799)

**Start of Change**

# X Wireless Access and Backhaul (WAB)

## X.1 General

* The study is based on the following requirements: The WAB-node includes a gNB component (WAB-gNB) and an MT component (WAB-MT).
* The WAB-gNB is based on the gNB functionality specified in TS 38.300 [x] and TS 38.401 [y].
	+ CU-DU split for WAB-gNB is not considered in this study.
* The WAB-MT support a subset of UE functionality.
* NR Uu is used for the radio link between an WAB-gNB and served UEs.
	+ The NR Uu radio link between the WAB-gNB and served UE does not use NTN.
* In-band scenario for access and backhaul is not precluded to be studied.
	+ The study precludes the scenario where the access and the backhaul are in-band and the backhaul uses NTN.
* The study focuses on the use of WAB-MT’s PDU session via NR Uu for the backhaul of WAB-gNB. Other non-NR Uu (including non-3GPP radio technology) for the backhaul by implementation is not precluded but not be part of the study.
* The WAB only supports single hop backhauling, which means that a WAB-gNB does not serve WAB-MTs.
* The study includes a scenario where the WAB-gNB and the WAB-MT connect to the 5GC of the same PLMN or different PLMNs.
* The WAB-MT may connect to 5GC of a PLMN or an SNPN.
* The WAB-gNB may connect to 5GC of a PLMN or an SNPN.

- Legacy UEs can connect to the WAB-gNB, and there are no WAB-specific enhancements to Rel-19 UEs.

## X.2 WAB Architecture

Figure X.Y-1 shows an example of WAB architecture for 5GS:

Figure X.Y-1: Example for WAB architecture for 5GS

Figure X.Y-3 shows protocol stack examples of control plane and user plane transport for a UE connected to the network via a WAB-node.



Figure X.Y-3: Protocol stack examples of control plane and user plane transport for UEs connected via WAB-node

**End of Change**