**SA WG2 Meeting #163 S2-2406260**

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**Title: KI#1: conclusions**

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**Agenda Item: FS\_VMR\_Ph2/19.6**

*Abstract: this paper provides conclusions on KI#1 on MWAB architecture*

1. Introduction

Based on the outcomes of the moderated email discussion we propose to provide an update to the conclusions for KI#1

2. Text Proposal

It is proposed to capture the following changes vs. TR 23.700-06.

Proposed text

## 8.1 KI#1 Conclusion

It is proposed to proceed normatively based on these principles.

1) The MWAB gNB can provide service for a PLMN of the same country of the PLMN serving the MWAB-UE which may be the same or different from the PLMN serving the MWAB UE.

2) The MWAB gNB can provide service for a SNPN which may be the same or a different SNPN serving the MWAB-UE.

3) The MWAB gNB can provide service for a SNPN while the MWAB-UE is providing BH-PDU sessions by means of a PLMN

4) The MWAB UE provides BH-PDU session(s) which is(are) providing connectivity to an OAM server, to AMF(s) of the SNPN or PLMN the MWAB-gNB provides access to (i.e. N2 Connections to the AMFs serving the UEs camping at the MWAB-gNB) and to UPF(s) serving the UEs camping at the MWAB-gNB (N3 Connections).

5) The MWAB connection to OAM can use the default (S-NSSAI, DNN) for the MWAB-UE. It is established by the MWAB-UE upon request from the MWAB-gNB when the MWAB-gNB intends to provide service. The OAM Server Address is configured in the MWAB-gNB.

6) The OAM configures the MWAB-gNB with the S-NSSAI and DNN to be used to establish PDU sessions for the N2, N3 connections (they maybe be the same or different PDU sessions). The IP address(es) the MWAB-UE obtains via this(these) PDU session(s) is used by the MWAB-gNB to establish the N2, N3 connections. The MWAB-gNB OAM PDU session may be the same or different from the one used for N2 and N3 connections.

7) The OAM configures the IP address of the AMFs that the MWAB-gNB needs to connect to.

8) The MWAB-gNB indicates to the AMFs it is a MWAB when it establishes the N2 connection to the AMFs.

NOTE 1: This requires RAN3 to define this indication.

9) If QoS optimization of the N3 connection is required, then the MWAB-gNB is configured by OAM with the mapping of the 5QIs to the DSCP field for TNL used by the UPFs/gNBs in the PLMN/SNPN serving the UE via the MWAB-gNB. This is the used to establish SDFs at the BH-PDU session used for N3 connection(s).

10) Improved Network slice support for UEs served by a MWAB-gNB can be achieved by establishing >1 BH-PDU sessions using different S-NSSAIs in the BH-PLMN for N3, each supporting a set of network slices used in the PLMN/SNPN serving the UEs. OAM provides the mapping of the S-NSSAIs used in the PLMN/SNPN to the S-NSSAI(s) used in the BH PLMN/SNPN.

11) The Xn support can be configured by OAM for a MWAB-gNB. The PDU session used for Xn is configurable (e.g. Xn-c may use the same PDU session as N2 and Xn-u same PDU session as N3).

NOTE 2: this is pending RAN3 agreement on supporting Xn for MWAB

12) MOCN RAN sharing may be supported subject to suitable configuration enabling remaining within the limits of the maximum number of BH PDU sessions (15) the MWAB UE can support. (in principle a MWAB-gNB can support up to 12 PLMNs).

13) MWAB multi-hop prevention can be enforced at the AMF, which can prevent serving a MWAB-UE based on awareness that the the gNB that would be serving it is a MWAB-gNB. This can apply at registration time, or also during N2 HO preparation, or (if Xn will be supported) at path switch.

NOTE 3: the Xn related aspect is pending RAN3 agreement on supporting Xn for MWAB.

End of proposed text