Synchronization of RDKB (WebUI) changes(update of SSID name) in Plume NOC using RDK Mesh Agent - RDKB - User Manual - 2020 - M3

1.1. **Introduction**

Integration of Mesh-agent component in Turris Omnia Gateway for Sync between RDKB WEBUI and Plume NOC. Mesh-agent notifies the Plume NOC , when there is a change of SSID in RDKB WebUI and vice versa.

Mesh-agent uses sysevent to notify between NOC and WebUI.

NOC - Graphical UI for Opensync Extender Devices

1.2. **Environment Setup**

The following Components are involved in the Synchronization process

1. Opensync
2. CcspWifiAgent
3. MeshAgent

• 1.2.1. Set-up Considerations

Opensync has to be manually triggered , and respective certificate has to be copied into the image

Execute the below script , for linking the back-haul interfaces

Back haul and DNS Script

```
root@TurrisOmnia-GW:# sh start_hostapd.sh

#!/bin/bash

killall dnsmasq
dnsmasq -u root -a 10.0.0.1 -i brlan0 -F 10.0.0.2,10.0.0.20 --dhcp-option=3,10.0.0.1 --dhcp-option=6,10.0.0.1 \
-a 169.254.2.1 -i wifi2 -F 169.254.2.2,169.254.2.10 \
-a 169.254.3.1 -i wifi3 -F 169.254.3.2,169.254.3.10 \
-C /dev/null -z --except-interface=lo -l /nvram/dnsmasq.leases --dhcp-script=/nvram/scripts/restart_mesh.sh \
--log-facility=/tmp/dnsmasq.log --log-dhcp

#touch /tmp/hostapd-acl0
#touch /tmp/hostapd-acl1
touch /tmp/hostapd-acl2
touch /tmp/hostapd-acl3

#hostapd_cli -i global raw ADD bss_config=wlan0:/nvram/hostapd0.conf
#hostapd_cli -i global raw ADD bss_config=wlan1:/nvram/hostapd1.conf
hostapd_cli -i global raw ADD bss_config=wlan2:/nvram/hostapd2.conf
hostapd_cli -i global raw ADD bss_config=wlan3:/nvram/hostapd3.conf
```

Execute the below script for running the opensync Managers

Open Sync Manager Script

```
root@TurrisOmnia-GW:/# sh start_plume.sh
#temporary fix
iptables -P INPUT ACCEPT

brctl addbr br-home

#ln -s /nvram/dnsmasq.leases /tmp/dnsmasq.leases

if [ ! -f /usr/plume/etc/certs/ca.pem ];
then
cp /nvram/certs/c* /usr/plume/etc/certs/
fi

killall meshAgent
cd /usr/ccsp/mesh
meshAgent &
cd /usr/plume/etc/
/usr/plume/scripts/managers.init stop
/usr/plume/scripts/managers.init start
```

Copy the Certificates in /usr/plume/etc/certs/*

Note: Cert files are provided by Opensync for Licencees

Opensync mangers and NOC status can verified by querying OVSDB table

1) **root@TurrisOmnia-GW:# /usr/plume/tools/ovsh s Manager**

```
------------------------------------------------------------------------
_uuid | cdff~a085 |
_version | b6e7~58ac |
connection_mode | ["set",[]] |
external_ids | ["map",[]] |
inactivity_probe | 30000 |
is_connected | true |
max_backoff | ["set",[]] |
other_config | ["map",[]] |
status | ["map",[["sec_since_connect","31"],["state","ACTIVE"]]] |
target | ssl:54.200.0.59:443 |
------------------------------------------------------------------------
```

- **1.2.2. User Access Considerations**

1) Log on to plume NOC, with the following URL https://piranha-osacademy.dev.us-west-2.aws.plume.tech/noc/login

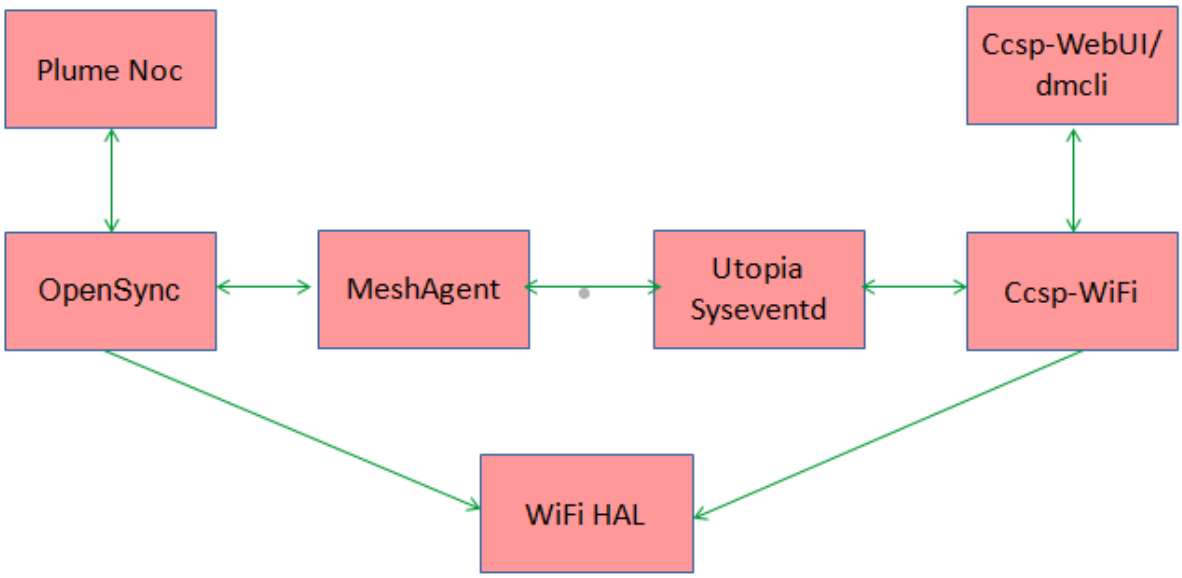
   UserName and Password are provided for Opensync Licencees

2) Access RDKB-WebUI , in the browser <erouter0-ip>:8080

   UserName: admin

   Password: password - (default password)

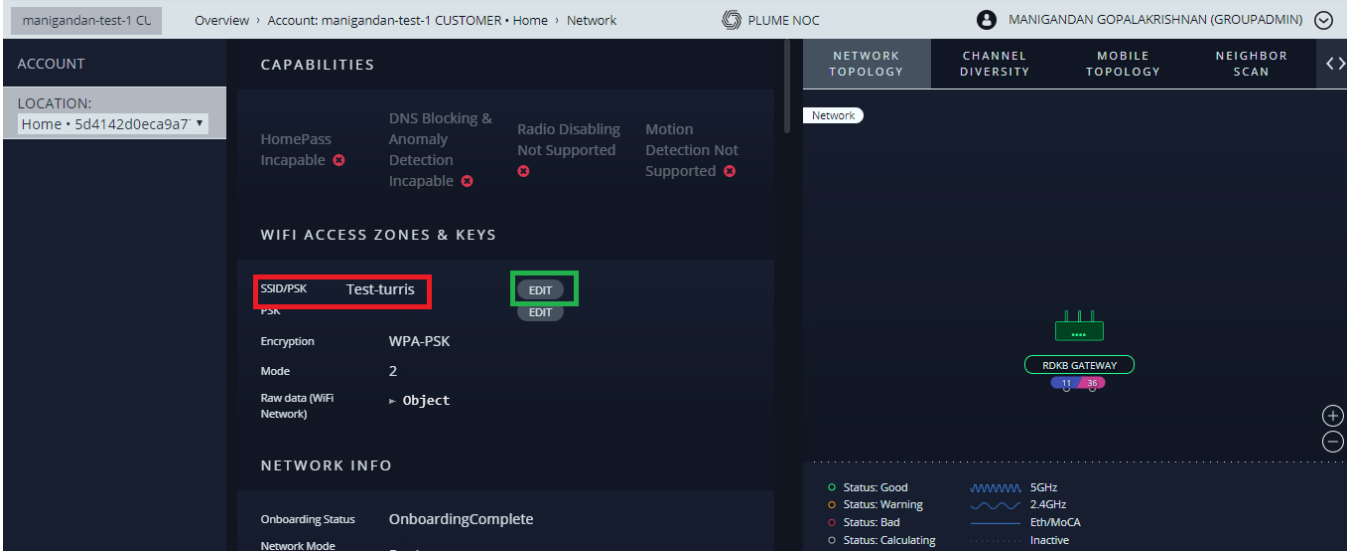
- **1.2.3. System Work Flow**



1.3. **Executing System**

Use Case 1:

Changing the SSID in Plume NOC



Click on EDIT button and change the SSID

Changed SSID is updated in RDKB WebUI

Can be verified with following dmcli Command

root@TurrisOmnia-GW:# **dmcli eRT getv Device.WiFi.SSID.1.SSID**

CR component name is: eRT.com.cisco.spvtg.ccsp.CR
subsystem_prefix eRT.
getv from/to component(eRT.com.cisco.spvtg.ccsp.wifi): Device.WiFi.SSID.1.SSID
Execution succeed.
Parameter 1 name: Device.WiFi.SSID.1.SSID
type: string, value: **Test-turris**

Use Case 2:

Changing the SSID in WebUI or via dmcli

Execute the below command, to change the SSID via dmcli

root@TurrisOmnia-GW:# **dmcli eRT setv Device.WiFi.SSID.1.SSID string Test-turris1**

CR component name is: eRT.com.cisco.spvtg.ccsp.CR
subsystem_prefix eRT.
setv from/to component(eRT.com.cisco.spvtg.ccsp.wifi): Device.WiFi.SSID.1.SSID
Execution succeed.

Log on to plume NOC and verify the Changed SSID is updated from dmcli

1.4. **Limitations**

- RDKB WebUI is not coming up, with recent changes in gateway image.
- ccspwifiagent is not coming up during bootup (systemctl restart ccspwifiagent)

1.5. **Troubleshooting**

- ### 1.5.1. Error Messages

  If unable to change SSID via dmcli command, restart ccspwifiagent.service

  $ systemctl restart ccspwifiagent

- ### 1.5.2. Special Considerations

  To see the updated SSID in NOC refresh the page in browser