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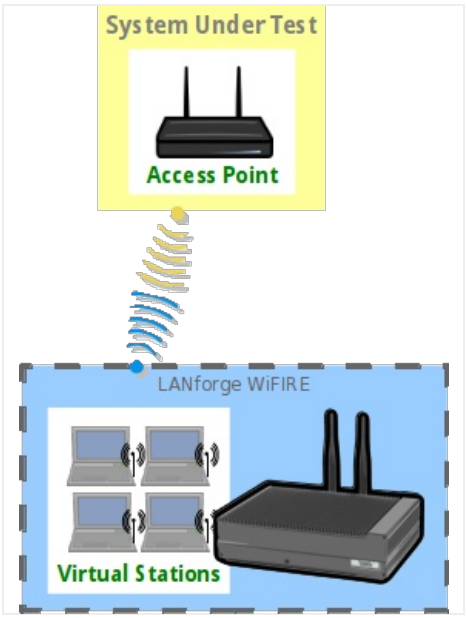
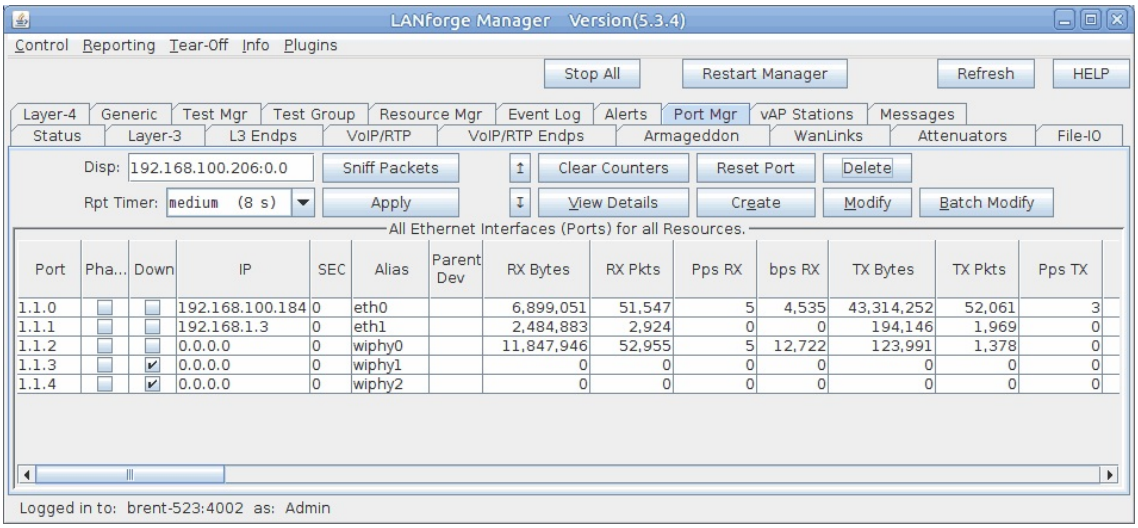
WPS Association

Goal: Associate a station to an AP with the WPS Push and PIN methods.

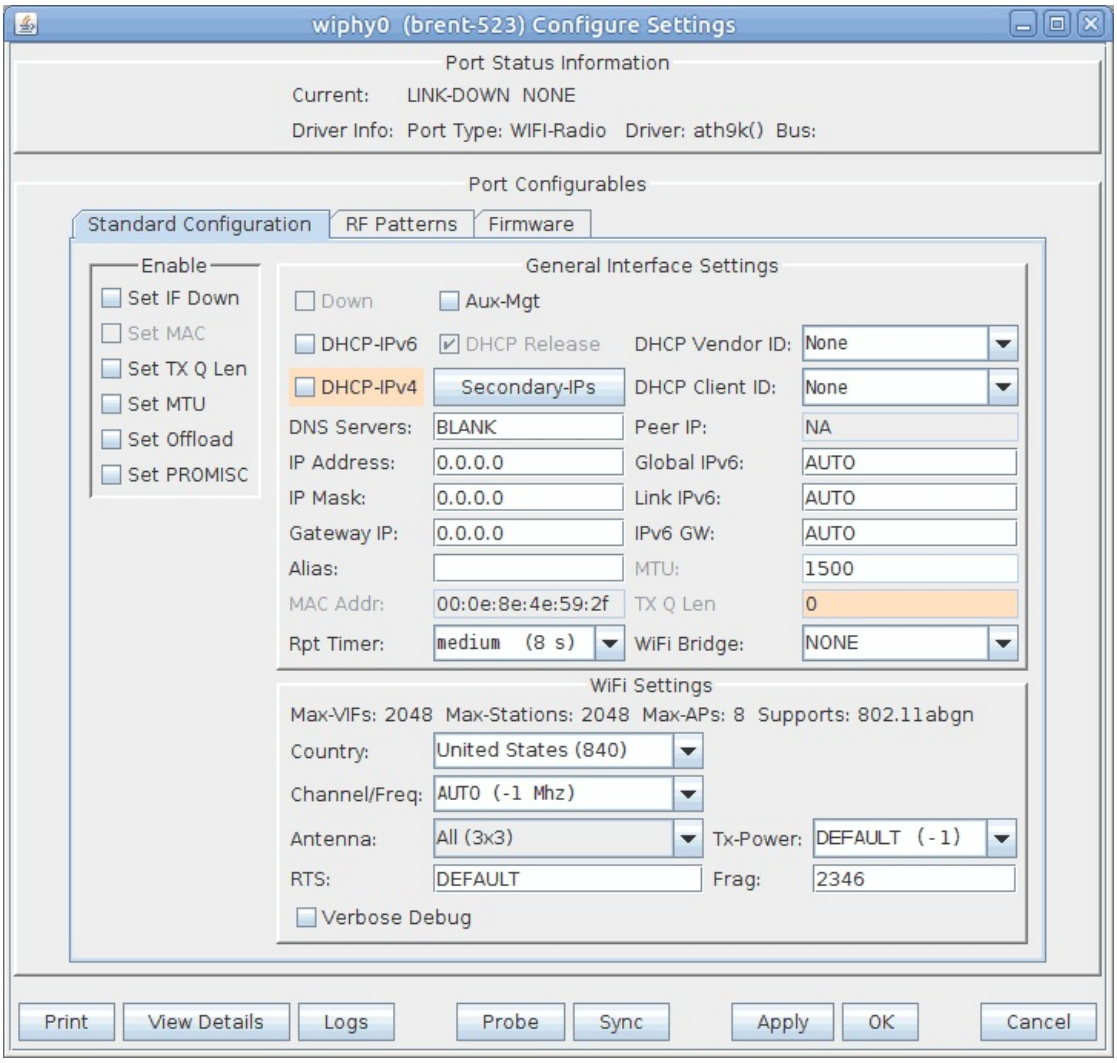
In this test scenario, a LANforge CT523 is used to simulate a station connecting to a commercial AP with WPS Push mode and also with WPS PIN mode. Currently this test requires the use of a terminal on the LANforge system to run some WPS commands.



1. Create a virtual wireless station.
   A. Go to the **Port Mgr** tab.



B. Check wiphy0 settings by selecting wiphy0 and click **Modify**.

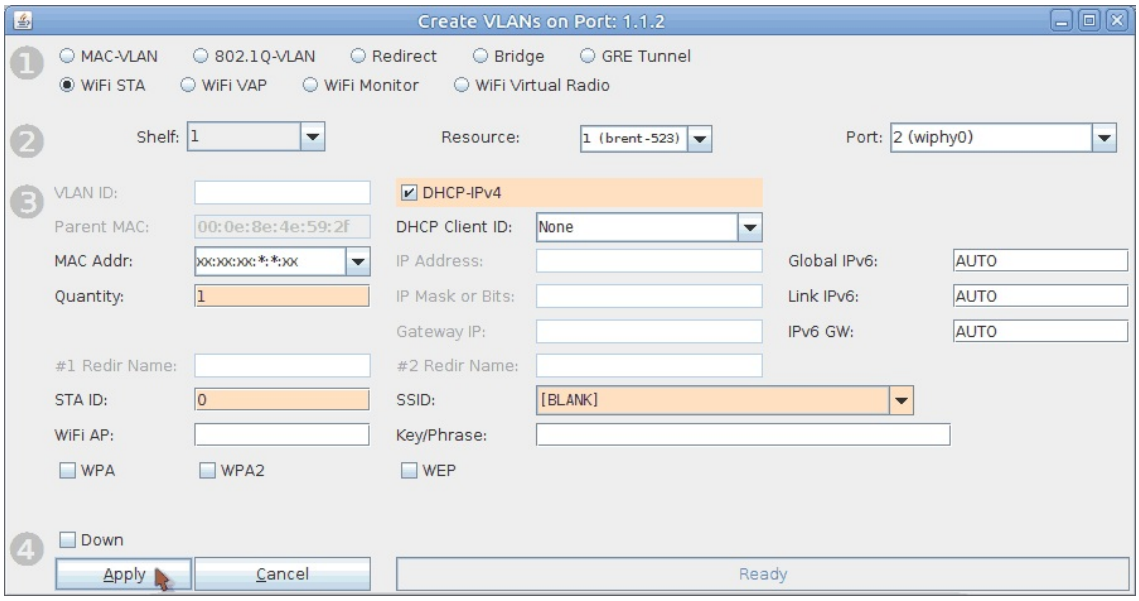


A. If the **Down** checkbox is selected, Click **Set IF Down** on the left, then uncheck the **Down** checkbox.

B. Make sure **Channel/Freq** is set to **AUTO**.

C. Click **OK**.

C. Back in the **Port Mgr** tab, select port wiphy0 and click **Create**.



A. Select **WiFi STA**.

B. Select **DHCP-IPv4**.

C. Set **Quantity** to **1**.

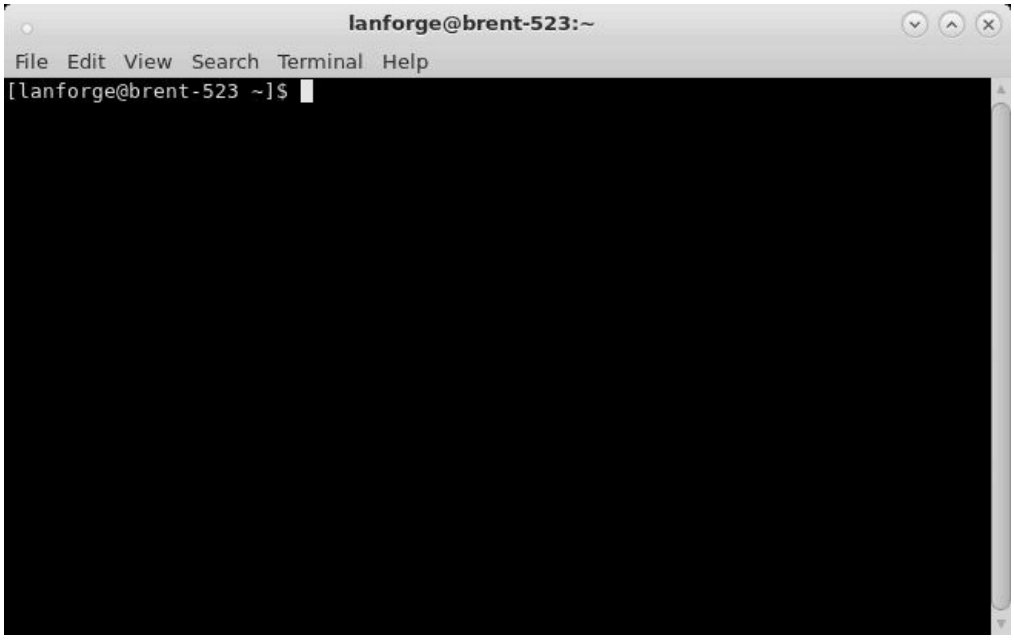
D. Set **STA ID** to **0**.

E. Set **SSID** to **[BLANK]**. Don't forget to add the brackets.

F. Click **Apply**.

2. Create a wpa_supplicant.conf file.

A. Open a terminal on the LANforge system.

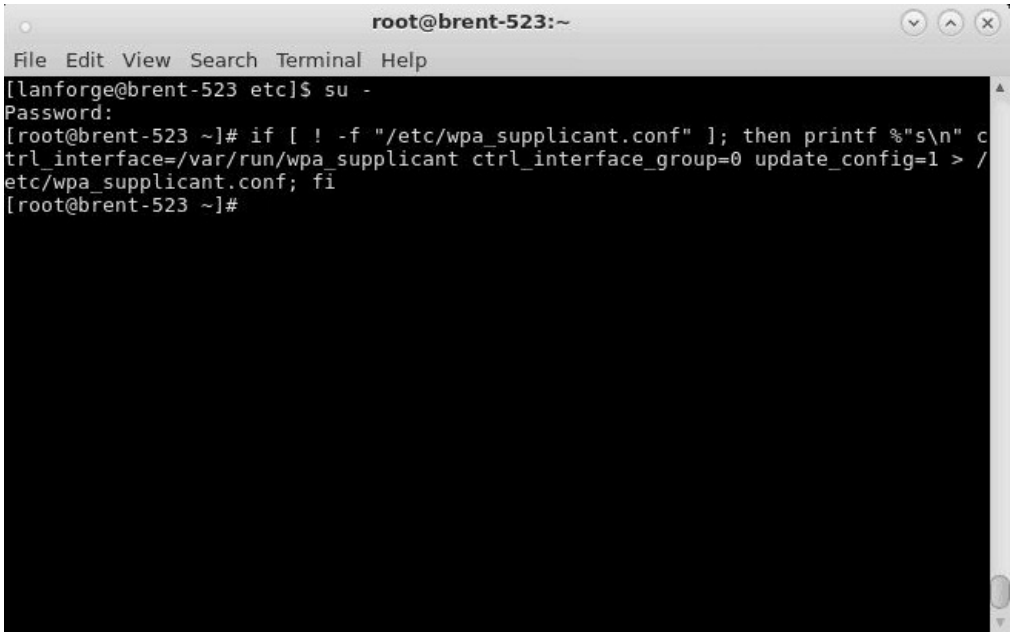


B. Create the file wpa_supplicant.conf in /etc that contains the below text. Alternatively, the command in the next step can be used to create the file.

```
ctrl_interface=/var/run/wpa_supplicant
ctrl_interface_group=0
update_config=1
```

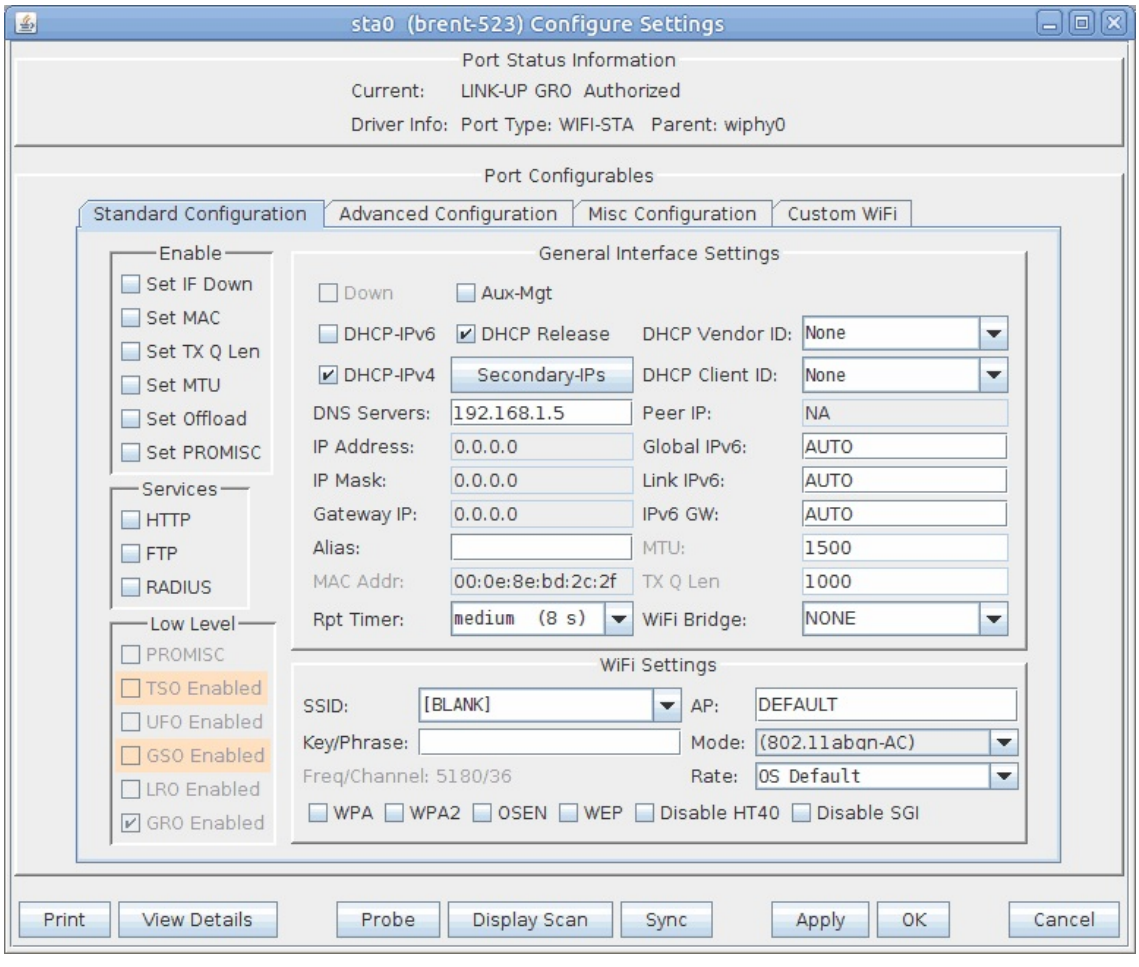
C. In the open terminal run the below command to create the wpa_supplicant.conf file.
NOTE: Please make sure wpa_supplicant.conf doesn't already exist in the **/etc** directory.

First become root: `su -`
Then run:
```
if [ ! -f '/etc/wpa_supplicant.conf' ]; then printf %'s\n' ctrl_interface=/var/run/wpa_supplicant
ctrl_interface_group=0 update_config=1 > /etc/wpa_supplicant.conf; fi
```

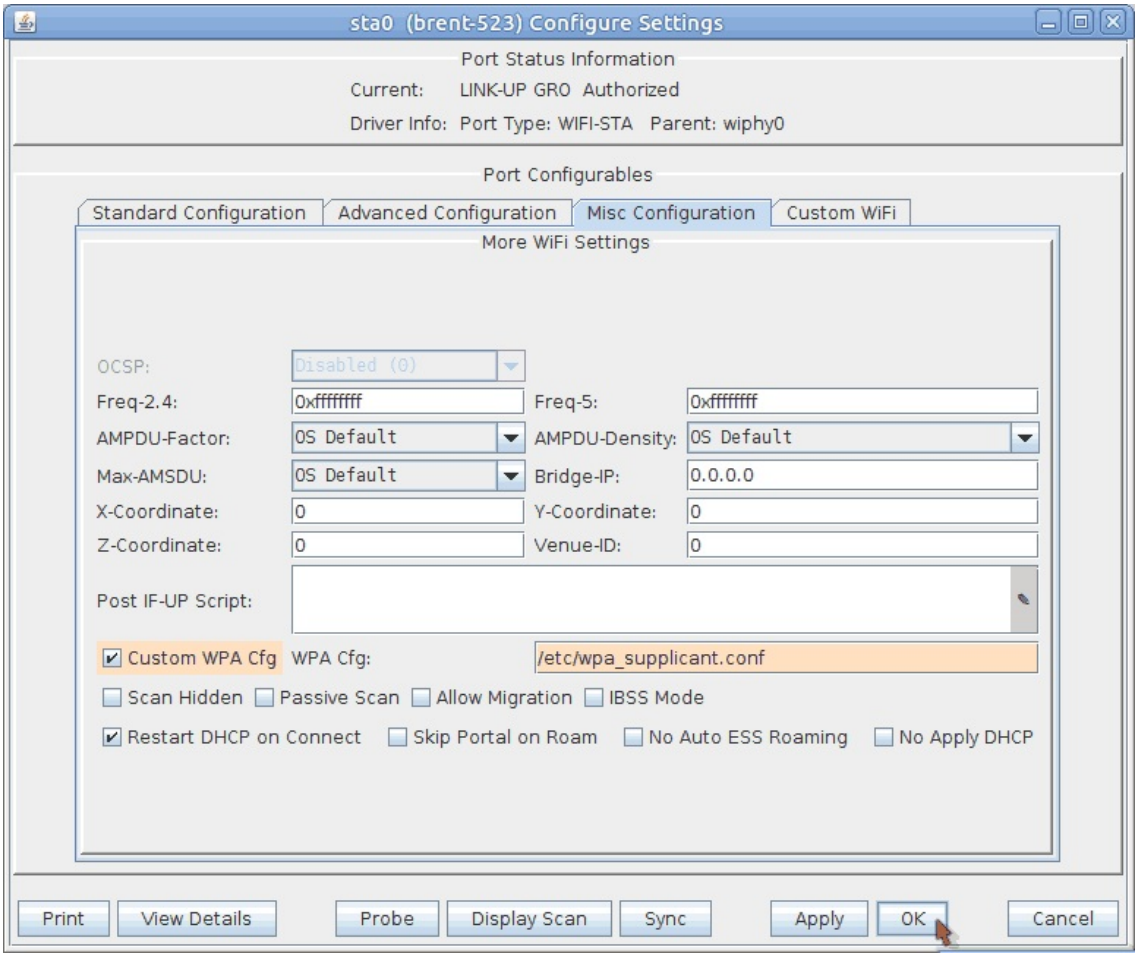


D. Keep in mind the wpa_supplicant.conf file will save AP information for stations. If you want a station to forget the AP information, you'll need to recreate the wpa_supplicant.conf file.

3. Configure sta0 to use a the wpa_supplicant.conf file created in step 2.
   A. Select **sta0** in the **Port mgr** tab and click **Modify**.



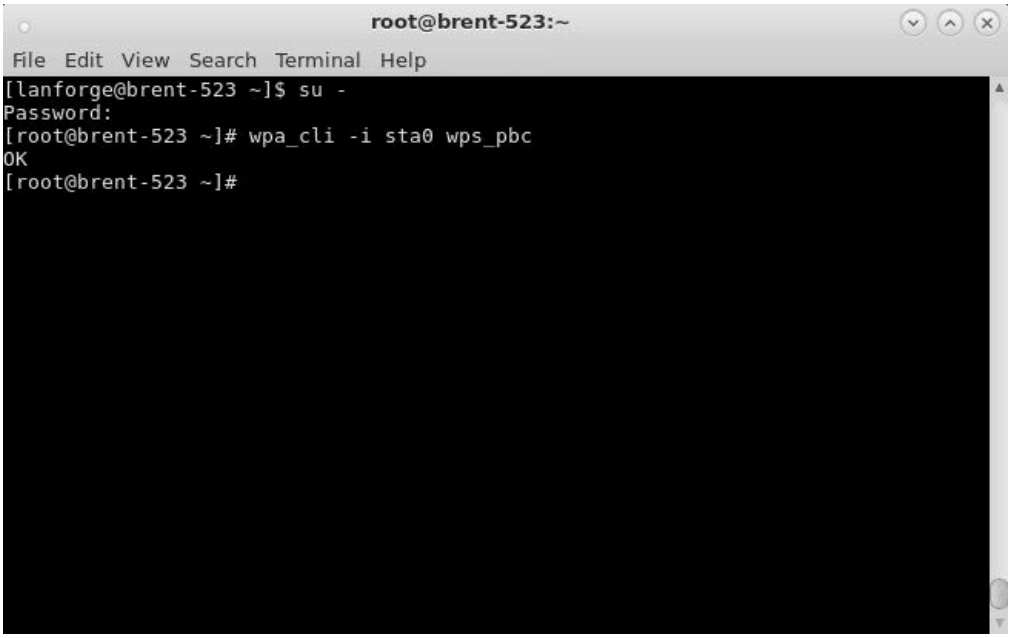
B. In the **Misc Configuration** tab, select **Custom WPA Cfg** then inside the text field for **WPA Cfg**, add the path of the wpa_supplicant.conf file. In this case, we'll be using **/etc/wpa_supplicant.conf**



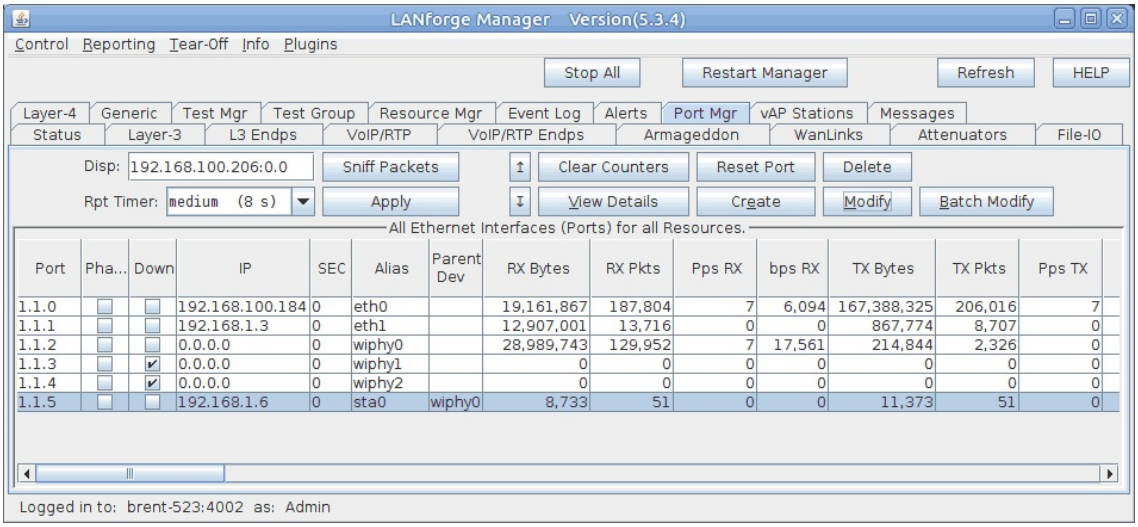
C. Click **OK**.

4. Associate the station using **WPS Push mode**.
   A. In a terminal on the LANforge system, enter in the below command and then push your AP's WPS button. If you aren't root, use `su -`

```
wpa_cli -i sta0 wps_pbc
```

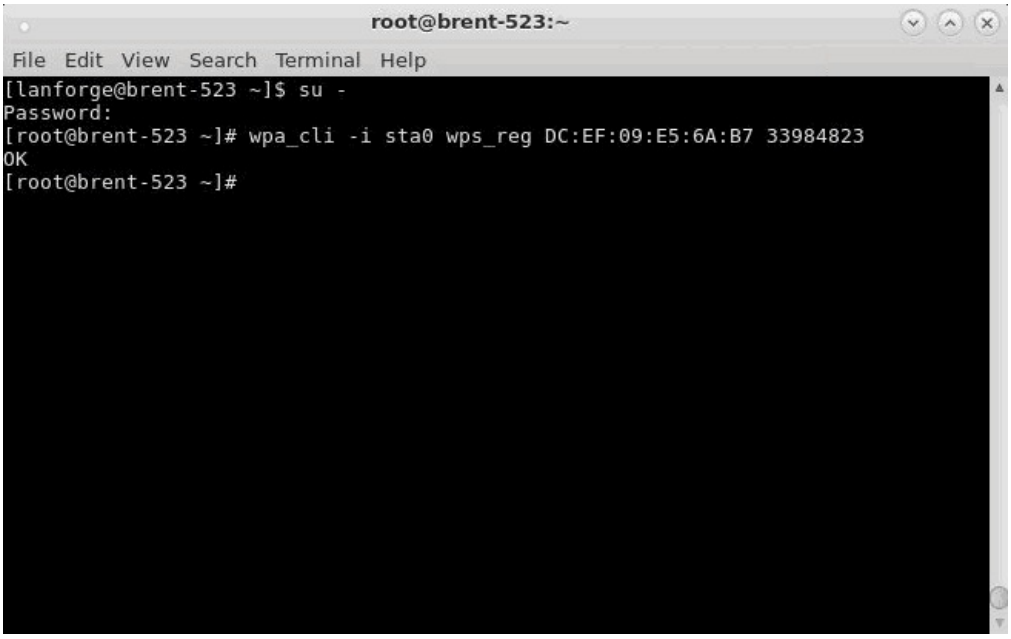


B. Your station should now associate and get an IP.
Note: The SSID field in the sta0 Modify window will remain as [BLANK]. You also may see a different SSID in the View Details window, this is a bug and can be ignored for now as long as the BSSID is correct.



5. Associate the station using **WPS PIN mode**.
   A. Obtain your AP's BSSID and WPS PIN. This information can usually be found on the AP label or in the AP's software.

   B. In a terminal on the LANforge system, enter in the below command. Replace the x's with the BSSID and numbers with the PIN. If you aren't root, use `su -`
   `wpa_cli -i sta0 wps_reg xx:xx:xx:xx:xx:xx 12345678`



C. Your station should now associate and get an IP.
Note: The SSID field in the sta0 Modify window will remain as [BLANK]. You also may see a different SSID in the View Details window, this is a bug and can be ignored for now as long as the BSSID is correct.