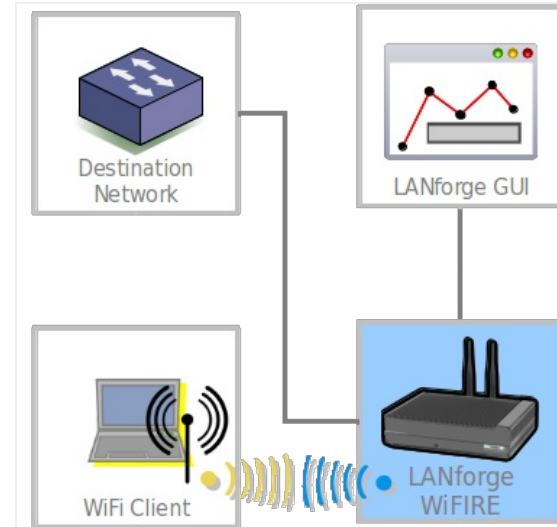
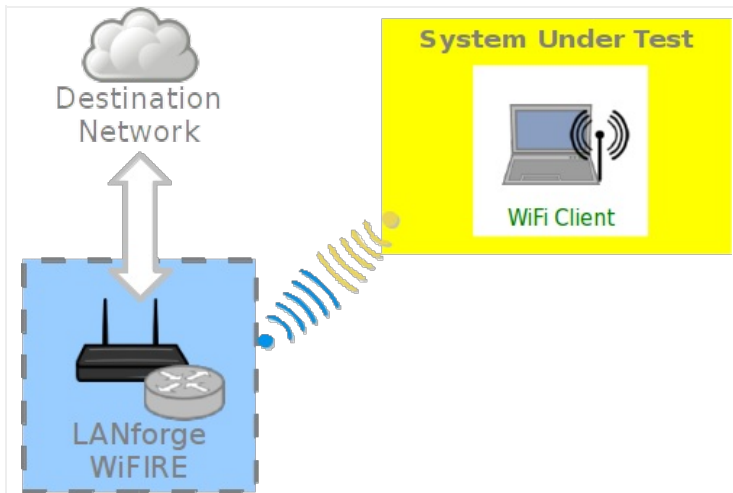


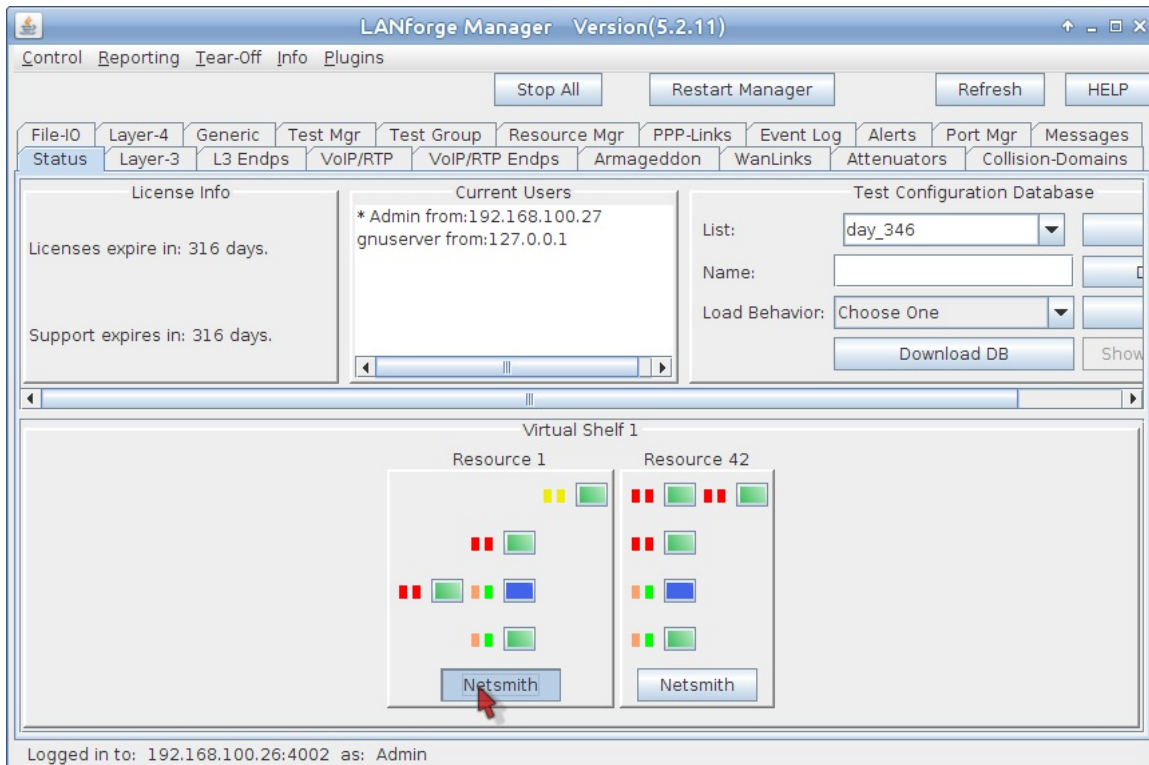
Wifi: Routed Virtual AP with Ethernet Gateway

Goal: Configure LANforge CT523 or similar with as a virtual access point with access to an ethernet network.

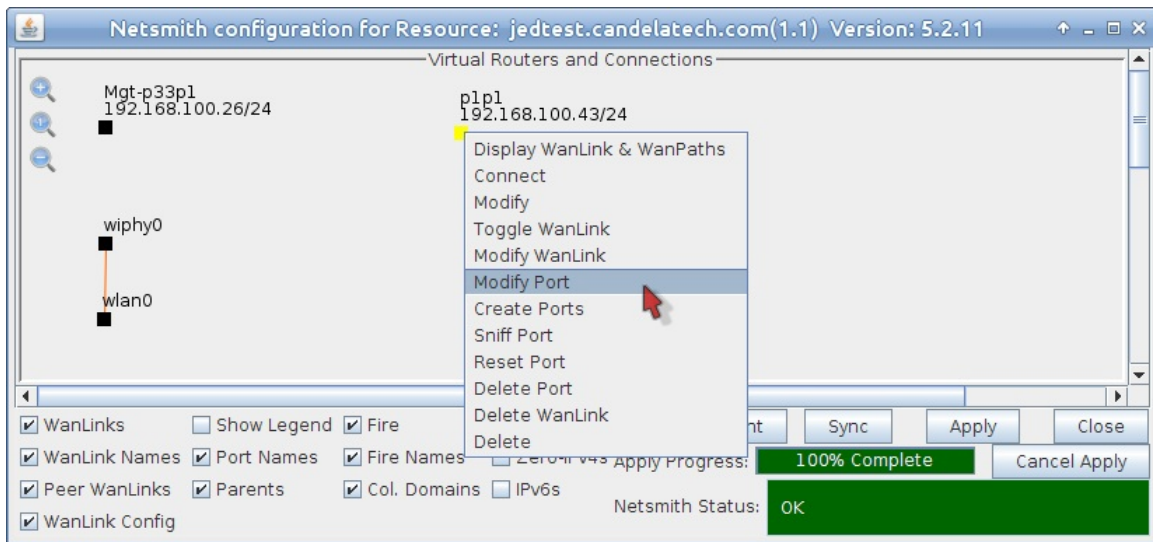
LANforge WiFi systems can be configured as wireless access points that are gateways to wired networks where the wired network is a separate broadcast domain.



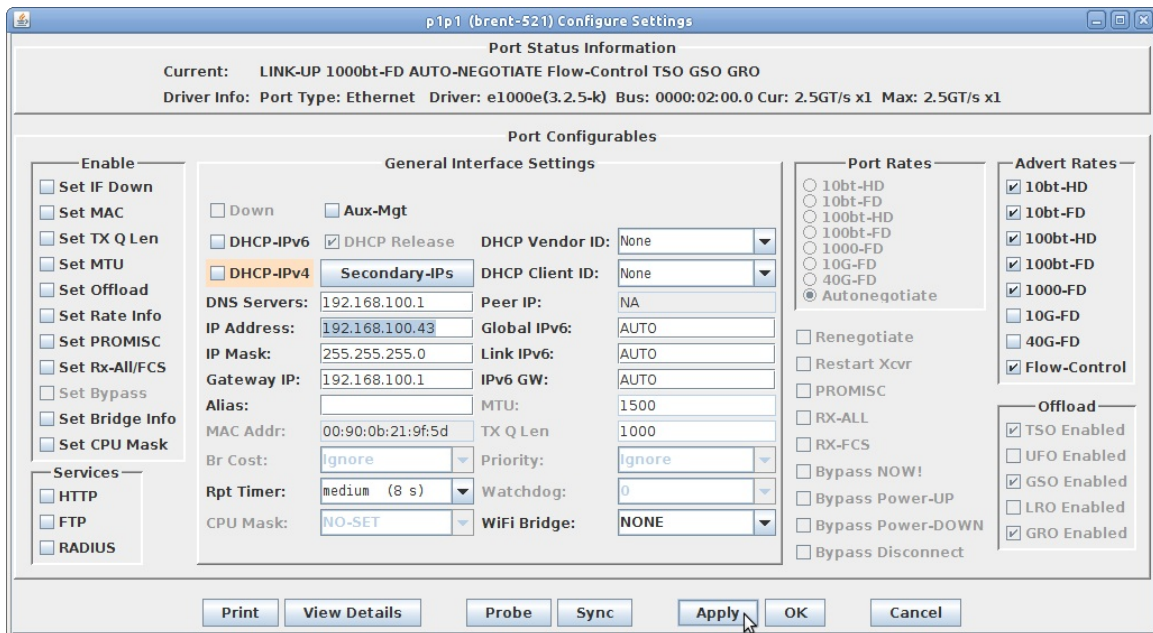
1. Configure the gateway port
2. From the **Status** tab, click **Netsmith**



3. In the **Netsmith** window, right click the ethernet port connected to the destination network and click **Modify Port**



4. Configure the gateway port with these settings:



- A. DNS Servers: 192.168.100.1
- B. IP Address: 192.168.100.43
- C. IP Mask: 255.255.255.0
- D. Gateway IP: 192.168.100.1
- E. Click **OK** to commit changes.

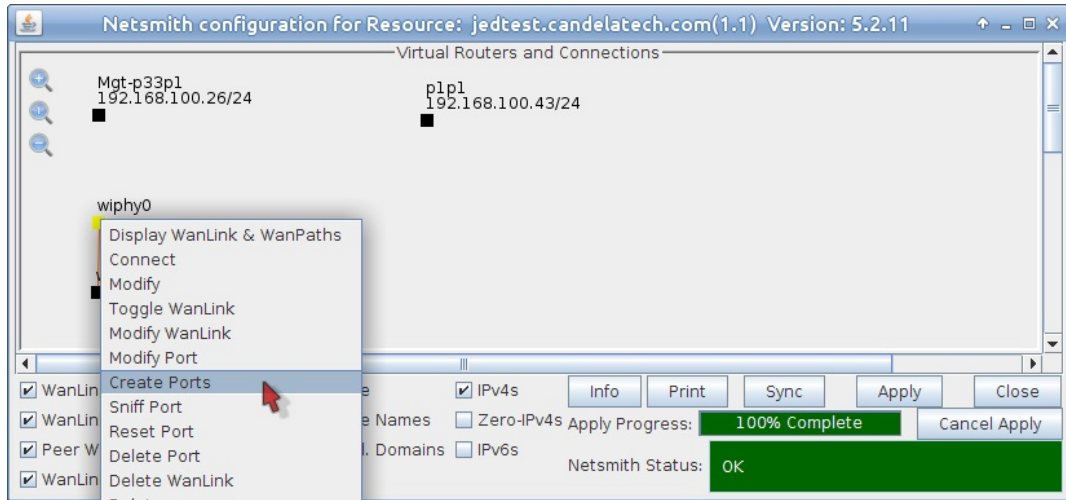
5. In the **Netsmith** window, click **Sync**

6. NOTE: It is also possible to assign NAT to the outbound gateway port.

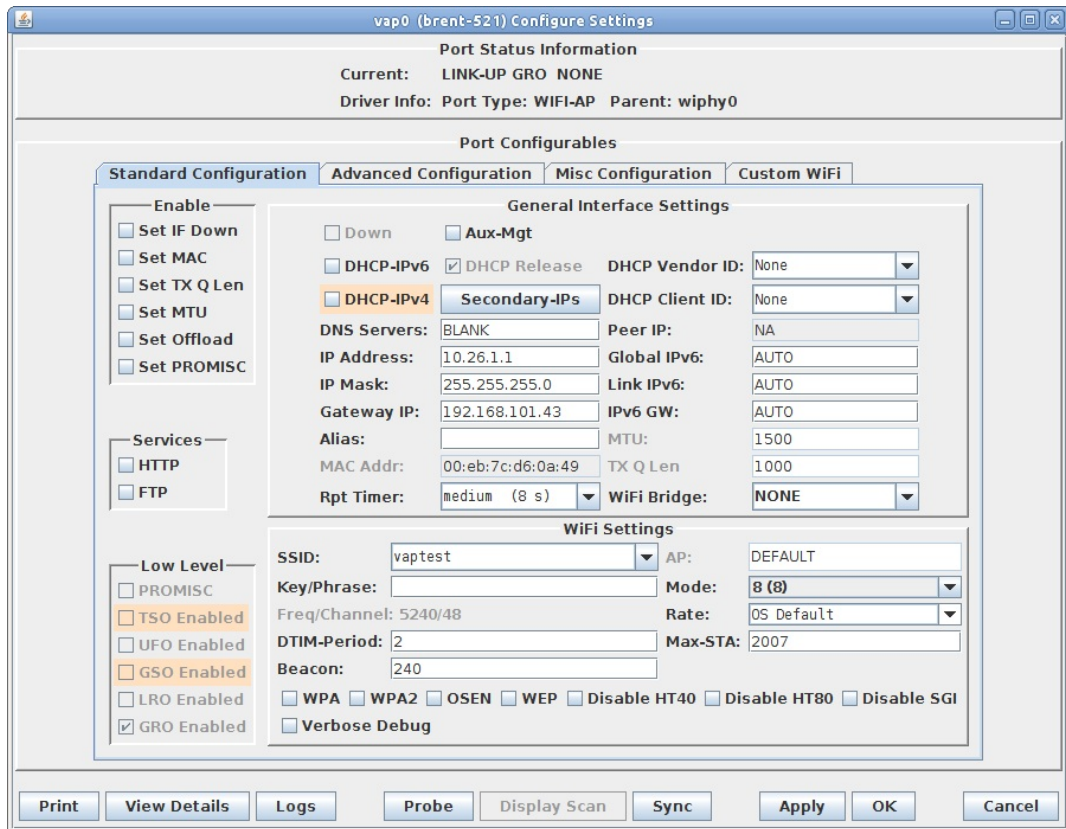
- A. From the **Netsmith** screen, you would right click on p1p1
- B. Choose **Modify**
- C. Select **NAT**
- D. Click **OK**
- E. Click **Apply** in the **Netsmith** window.

7. Create the virtual access point (AP)

- A. Right click the radio `wiphy0` and select **Create Port**:

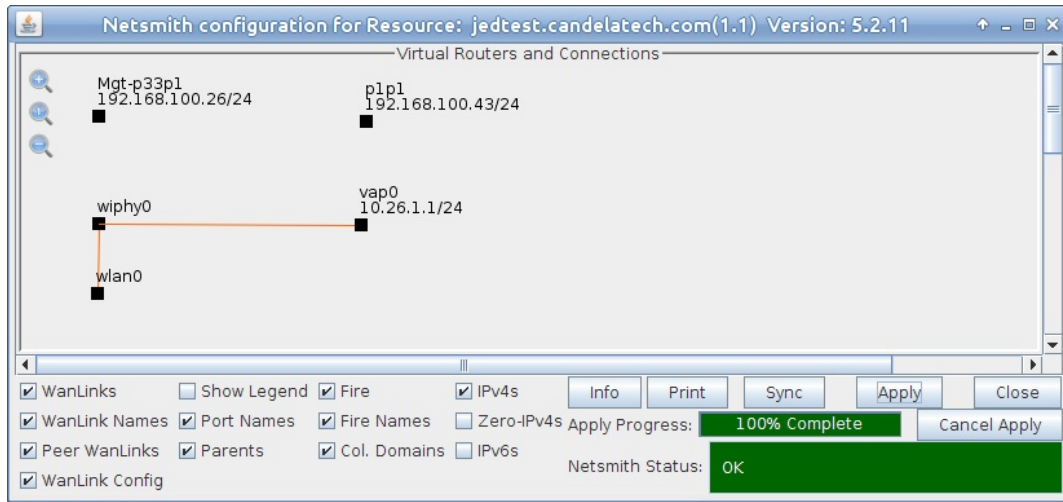


- B. Configure the AP with these settings:

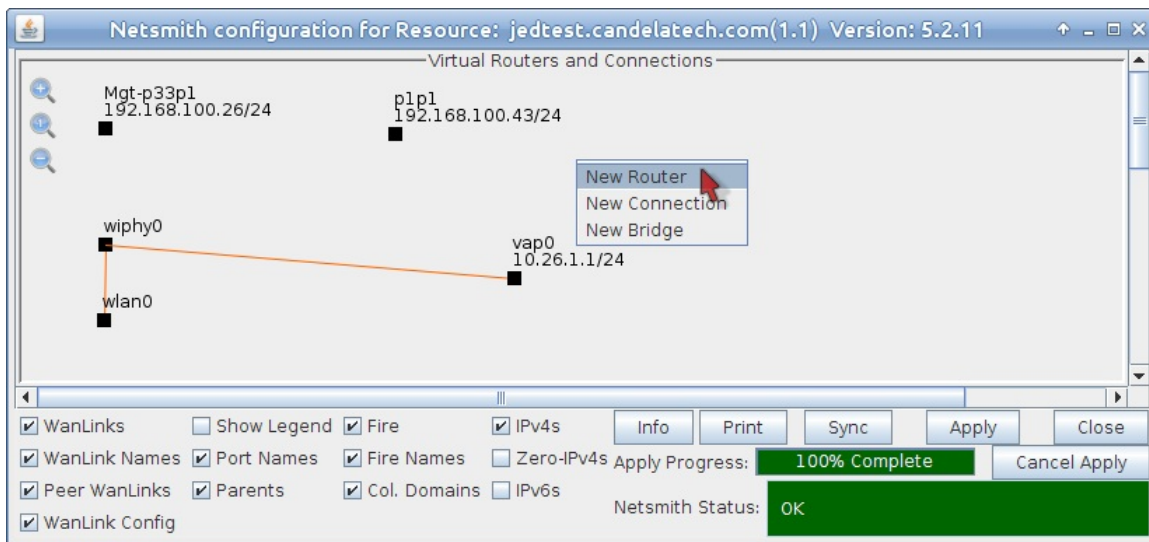


- A. Select **WIFI VAP**
- B. Select a MAC Address: `00:eb:7c:d6:0a:49`
- C. IP Address: `10.26.1.1`
- D. IP Mask: `255.255.255.0`
- E. Gateway IP: `192.168.100.43`
- F. STA ID: `0`
- G. SSID: `vaptest`

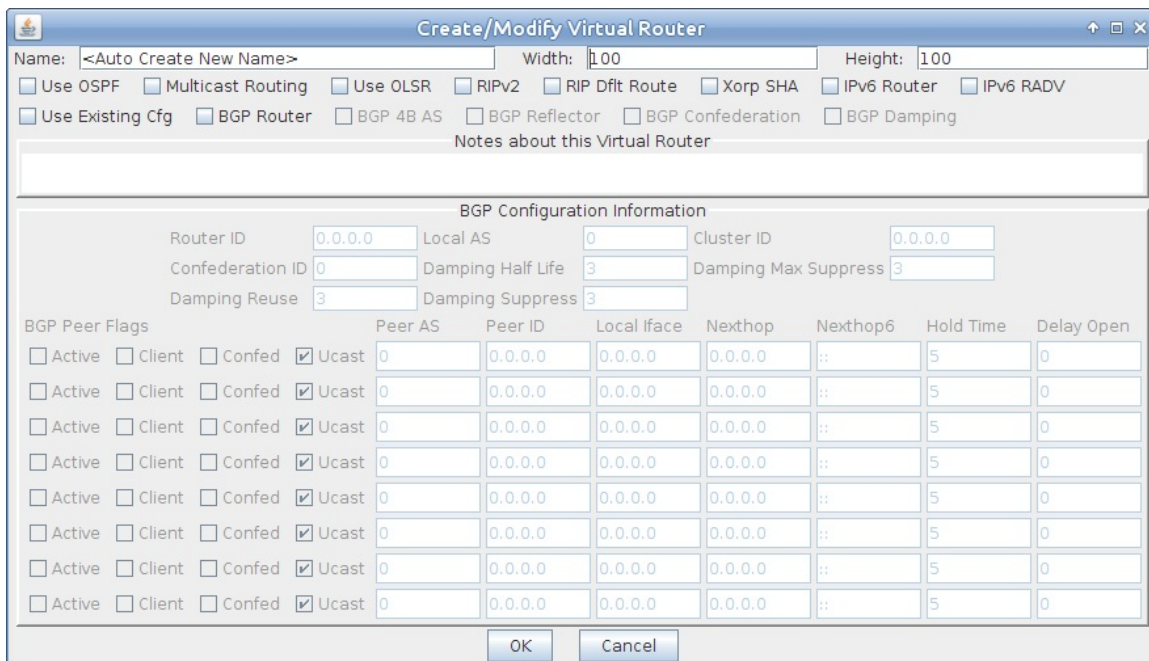
C. In the **NetSmith** window, click **Sync**



8. In the **NetSmith** window, right click and select **New Router**

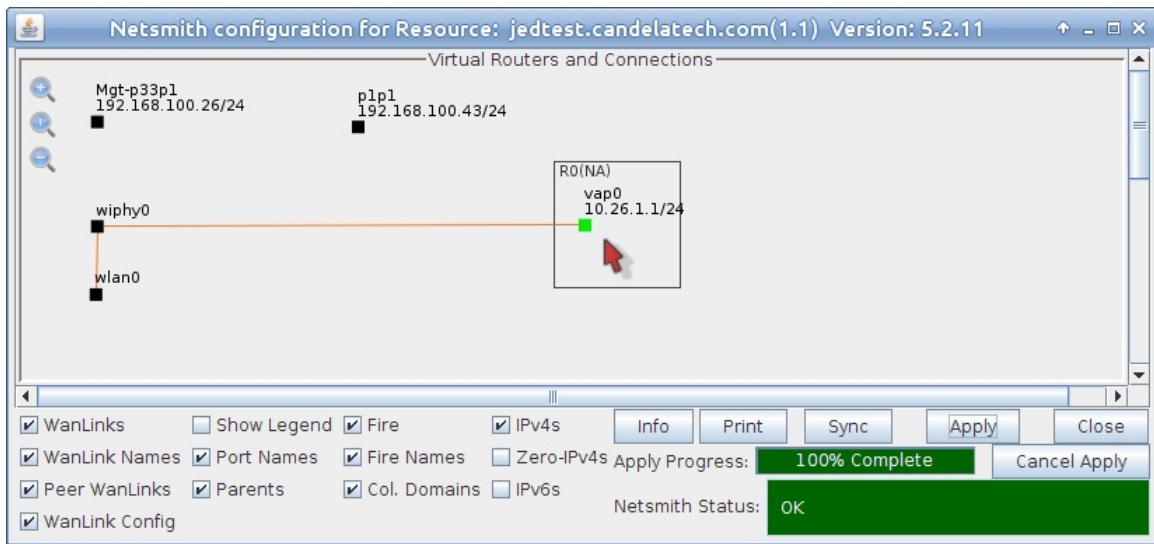


9. Create a router using default settings: click **OK**.



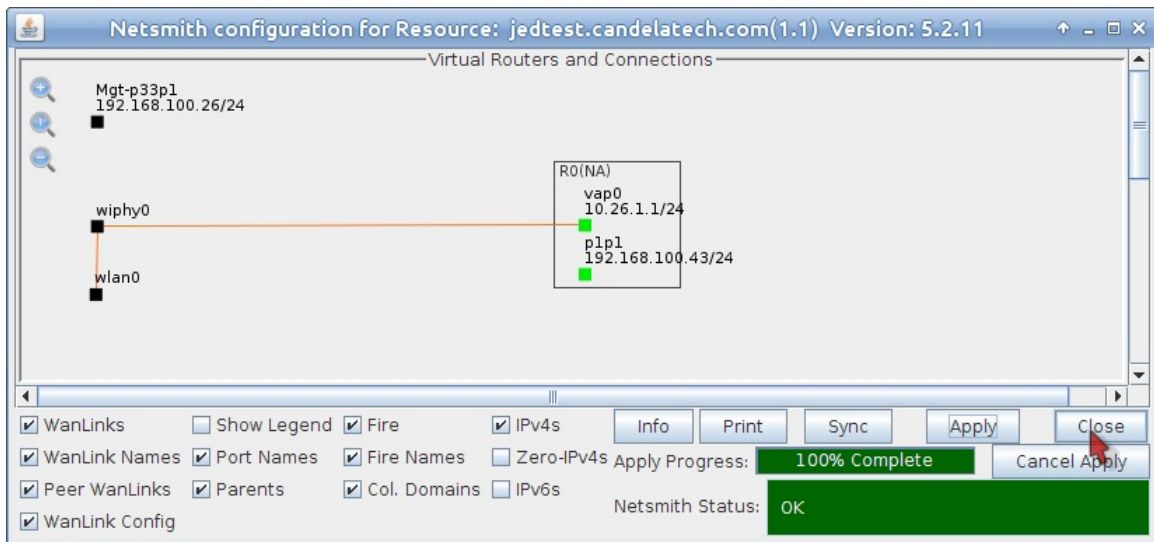
A. In the **NetSmith** window, click **Apply**

10. Drag **vap0** into the virtual router



A. In the **Netsmith** window, click **Apply**

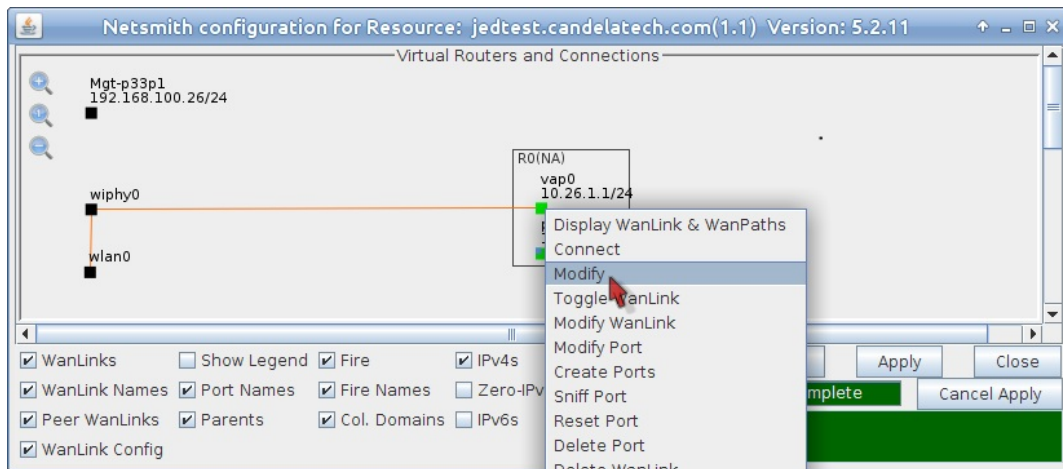
11. Drag **p1p1** into the virtual router



A. In the **Netsmith** window, click **Apply**

12. Assign DHCP to the **vap0** port

A. Right click on **vap0** and select **Modify**



B. Configure DHCP with these settings:

The screenshot shows the 'Create/Modify Connection' dialog box with the following settings:

- Port 1-A: 3 (p1p1)
- Port 1-B: Skip <Auto Create New Port>
- WanLink: Skip <Auto Create New WanLink>
- Port 2-B: Skip <Auto Create New Port>
- Port 2-A: Skip <Auto Create New Port>
- DHCP Lease Time: 43200
- DHCP DNS: 192.168.100.1
- DHCP Range Min: 10.26.1.20
- DHCP Range Max: 10.26.1.50
- DHCP Domain:
- DHCPv6 DNS:
- DHCPv6 Range Min:
- DHCPv6 Range Max:
- DHCPd Config File:
- NAT DHCP DHCPv6 Custom DHCP VRRP Cand-RP

Interface settings on the right include: Interface-Cost: 1, RIP-Metric: 1, OSPF Area: 0.0.0.0, VRRP IP: 0.0.0.0/24, VRRP ID: 1, VRRP Priority: 100, VRRP Interval: 1, Next-Hop: 0.0.0.0. There are also empty fields for Subnets (a.b.c.d/xx) and Next-Hop-IPv6.

- A. DHCP DNS: 192.168.100.1
- B. DHCP Range Min: 10.26.1.20
- C. DHCP Range Max: 10.26.1.50
- D. Select **DHCP**
- E. Click **OK** to commit the settings.

C. In the **NetSmith** window, click **Apply**

13. NOTE: To test this setup, you could use a laptop with WiFi or a desktop system with a USB WiFi dongle to associate with the Virtual AP. If you have a second radio in your LANforge CT523 you could create a virtual station on one of those extra radios, as well.