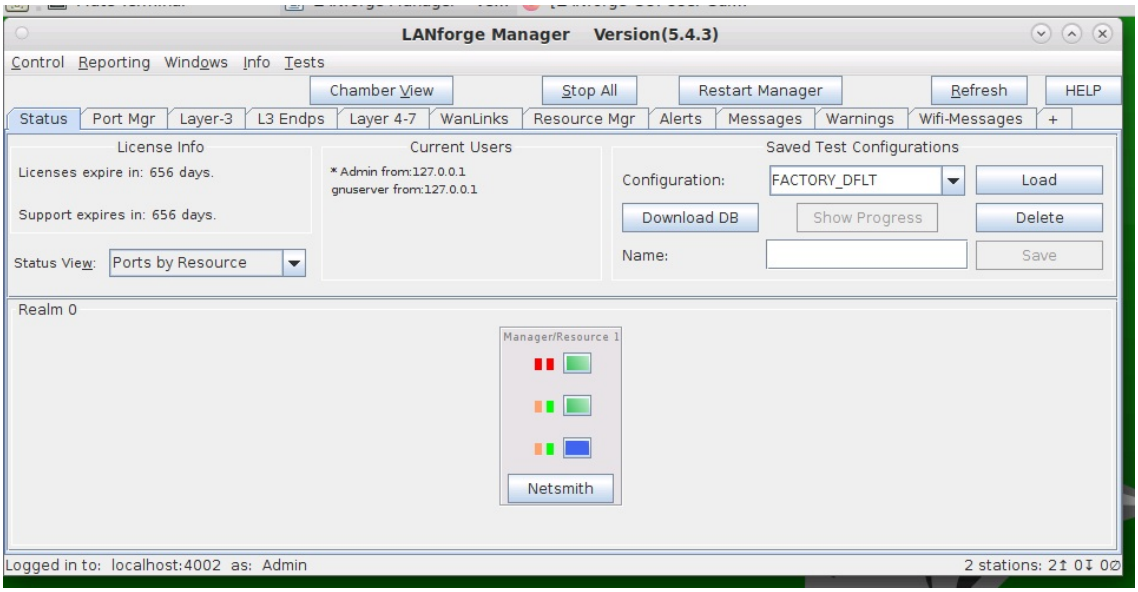
sales@candelatech.com
support@candelatech.com
+1 (360) 380-1618 [PST, GMT -8]

Virtual Router with DHCP Service

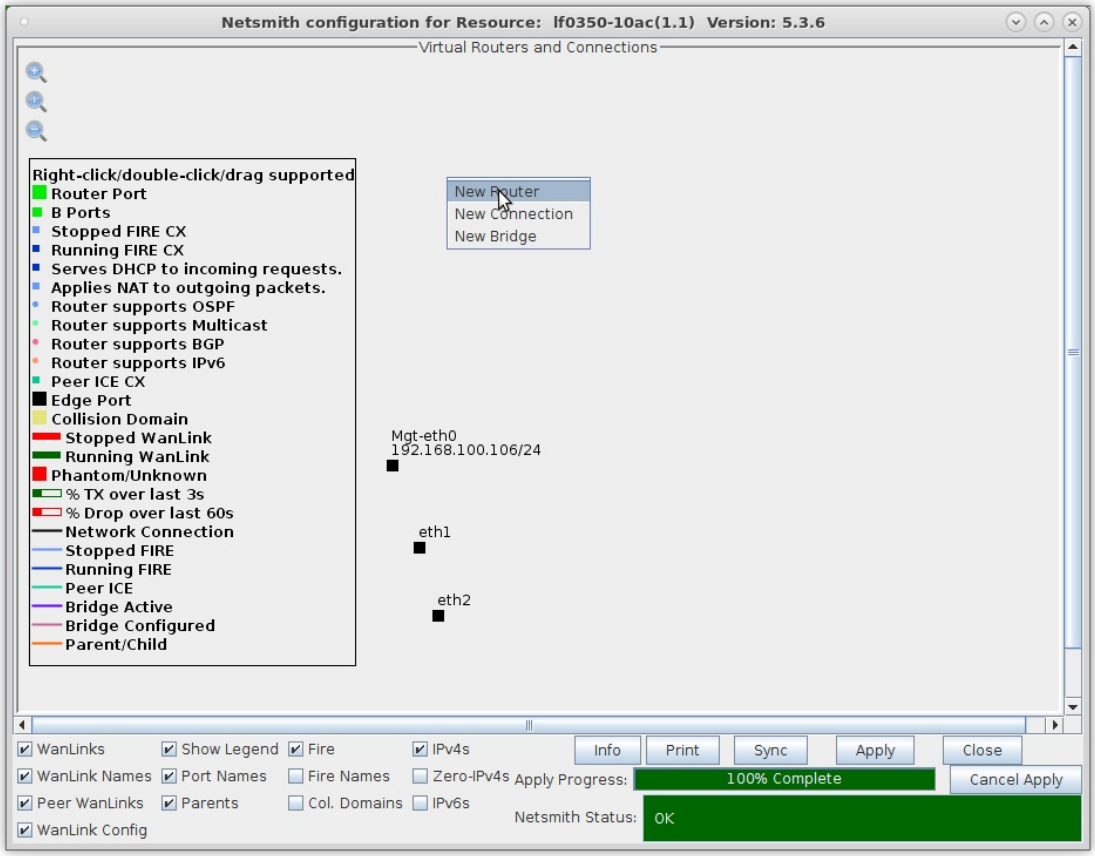
Goal: Setup a Virtual Router with one interface serving DHCP.

In this test scenario, a LANforge Virtual Router is created with one interface setup to serve DHCP to two remote redirect interfaces that are setup to be DHCP clients.

1. Setup a Virtual Router and two Netsmith Connections.
   A. Go to the **Status** tab and click the **Netsmith** button

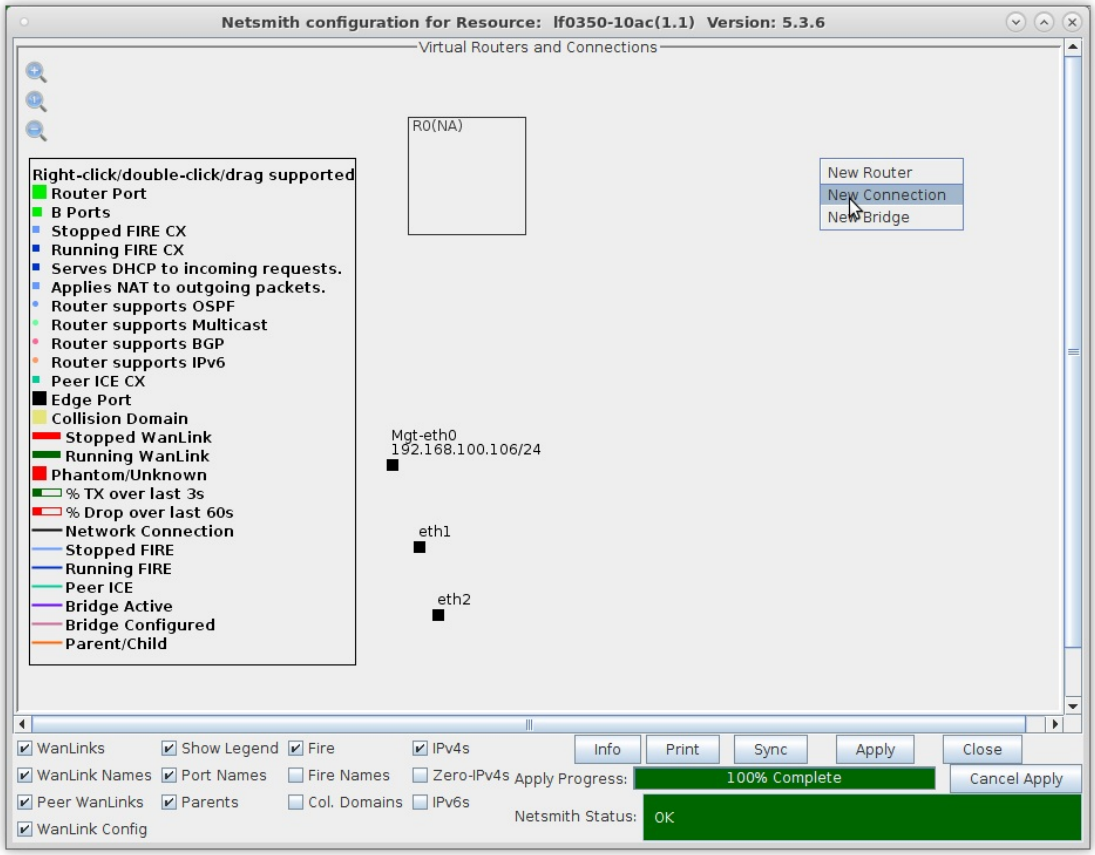


B. Right-click in the Netsmith window and select **New Router**

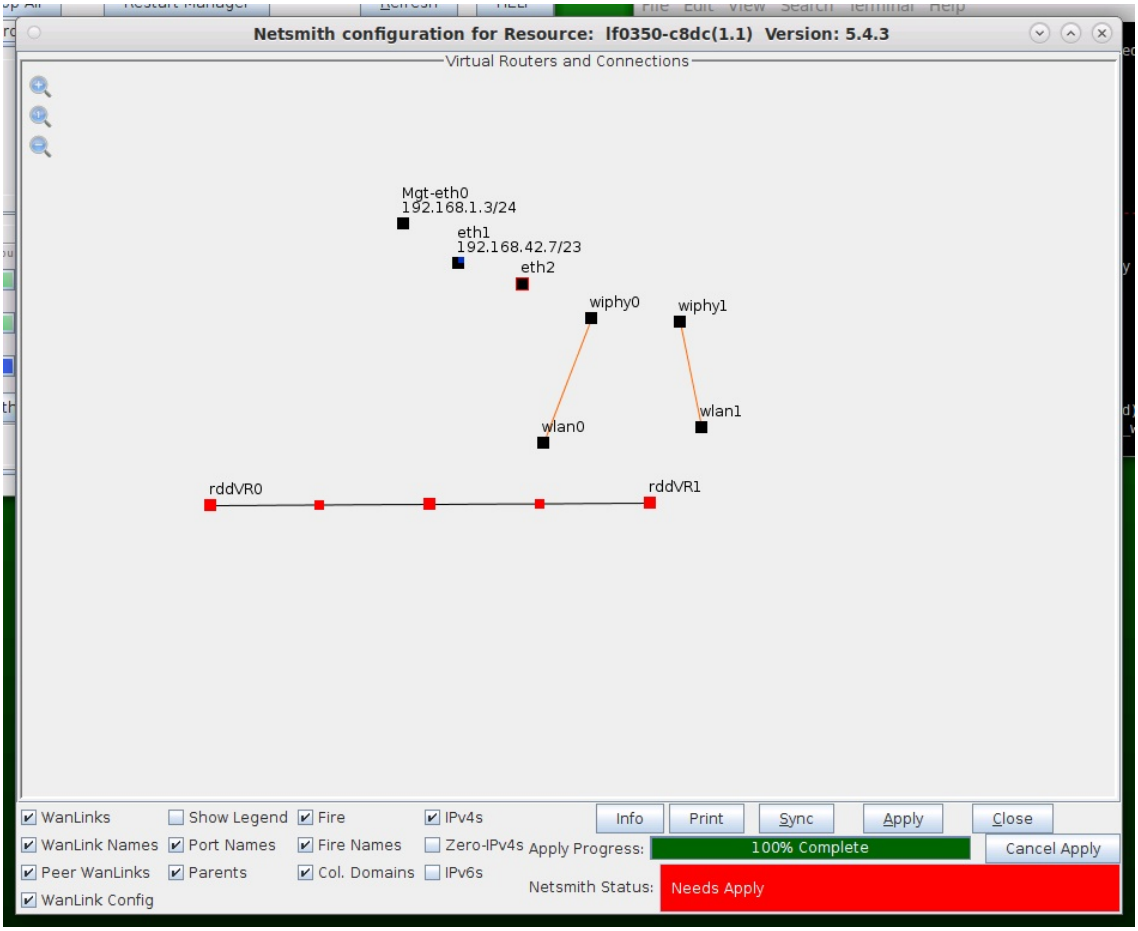


A. Follow steps discussed above for configuring the router

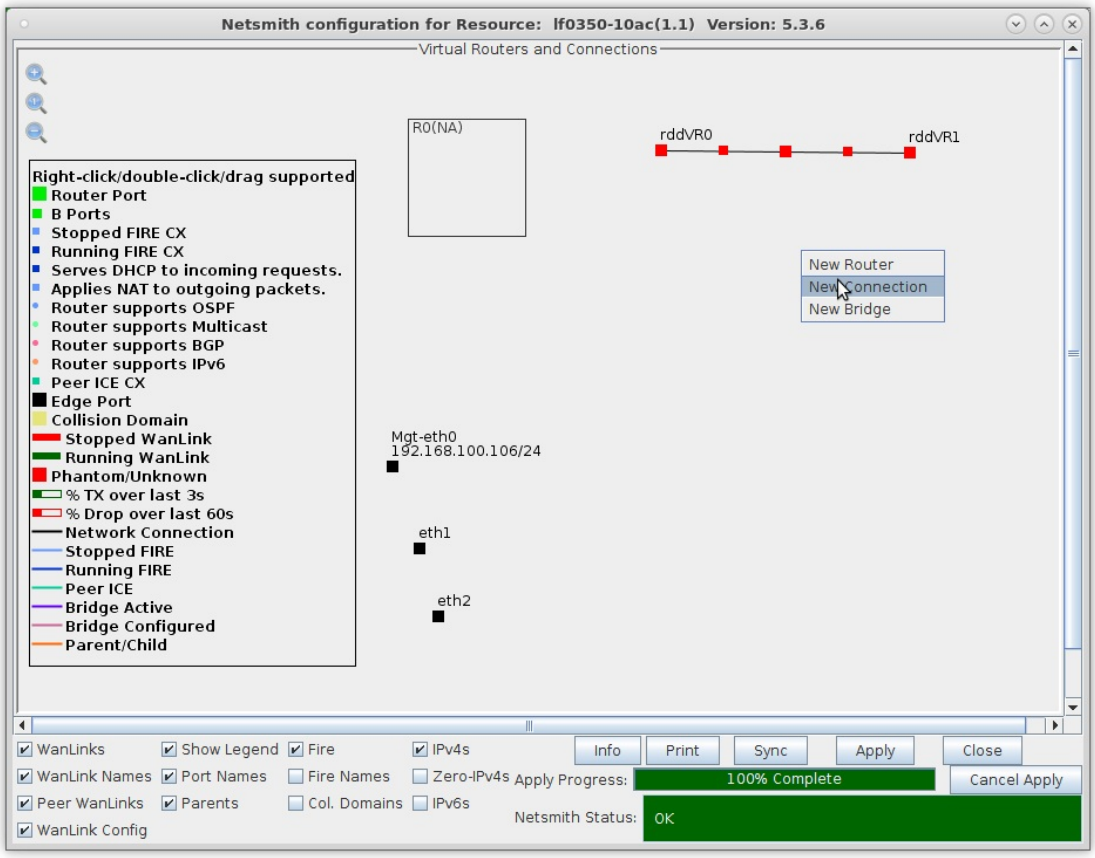
C. Right-click in the Netsmith window and select **New Connection**



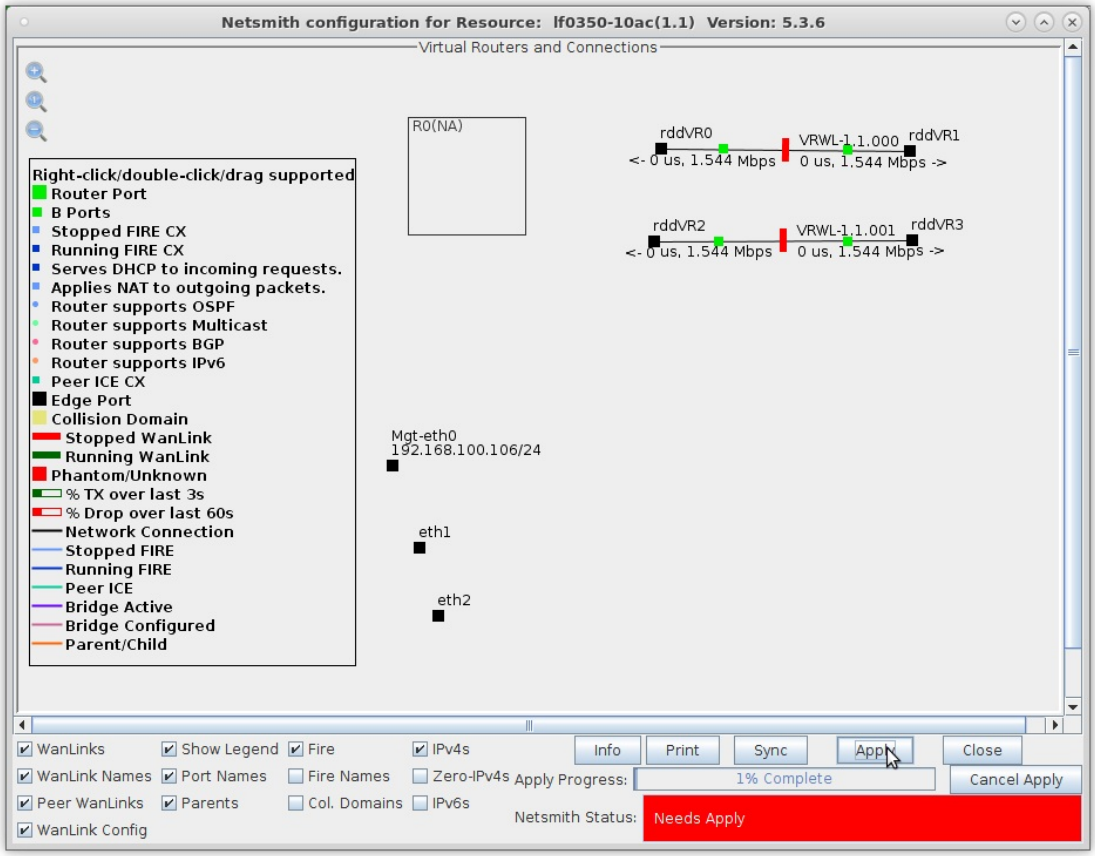
D. Accept defaults, Auto Create everything and click **OK**



E. Repeat and create a second connection.



F. Click the **Apply** button to commit the changes in Netsmith to the LANforge Server.

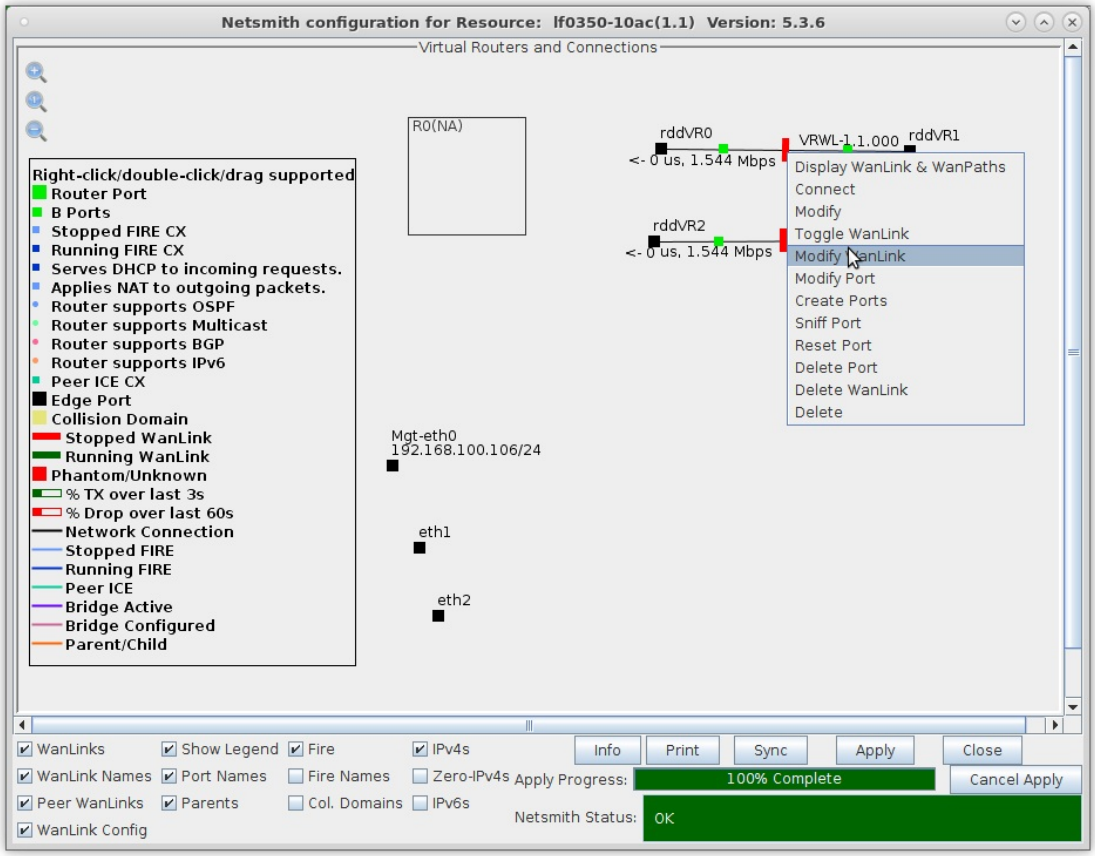


A. **NOTE**: Modifications in Netsmith are only sent to the LANforge-Server after Applying them

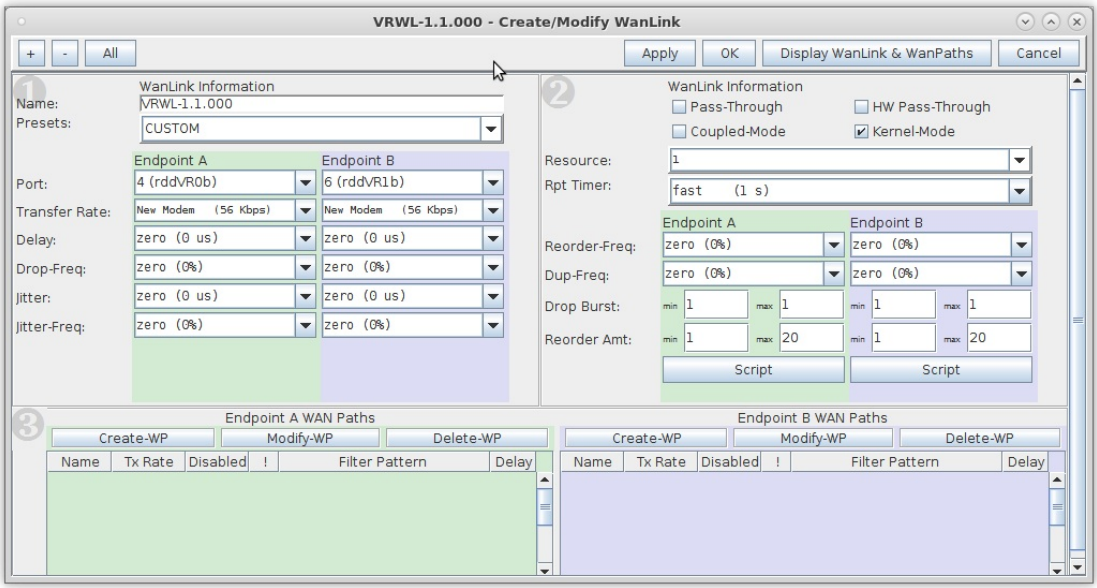
For more information see LANforge-GUI User Guide: Virtual Interfaces

2. Setup the WanLinks.

A. Right-click the first WanLink and select **Modify WanLink**



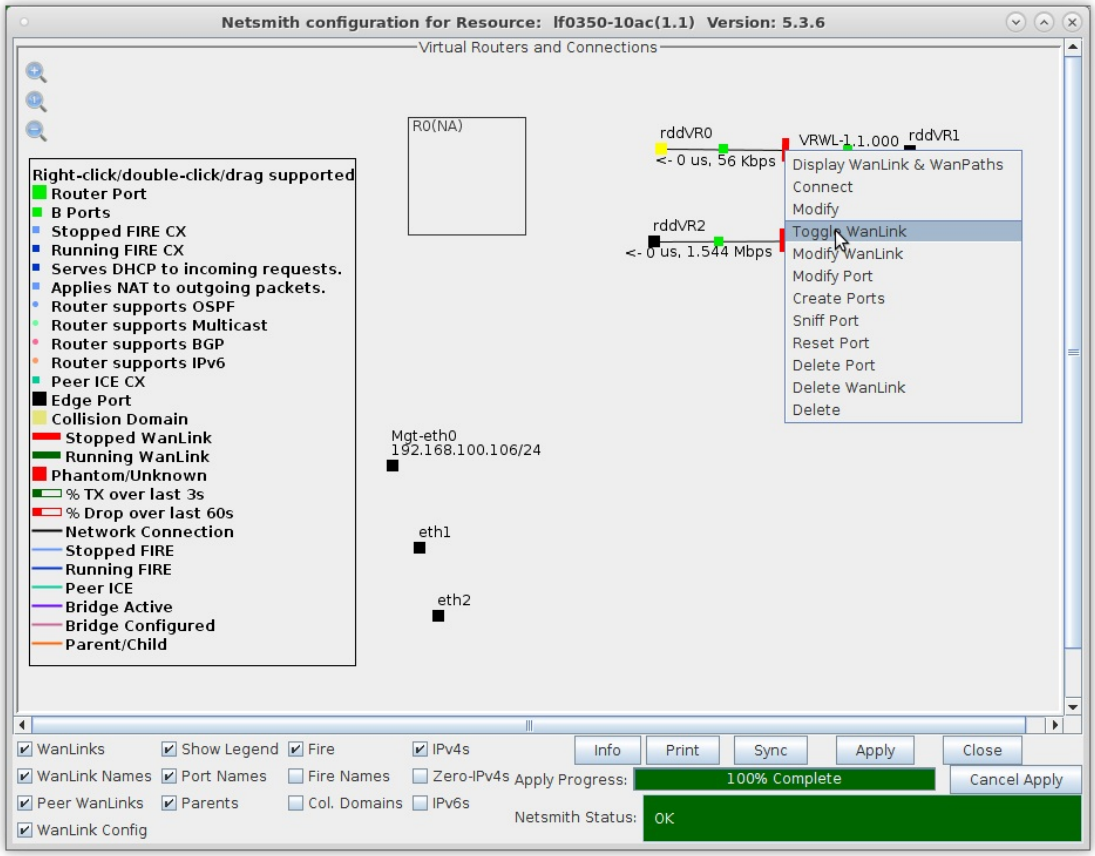
B. Enter values specific to your test and click **OK**



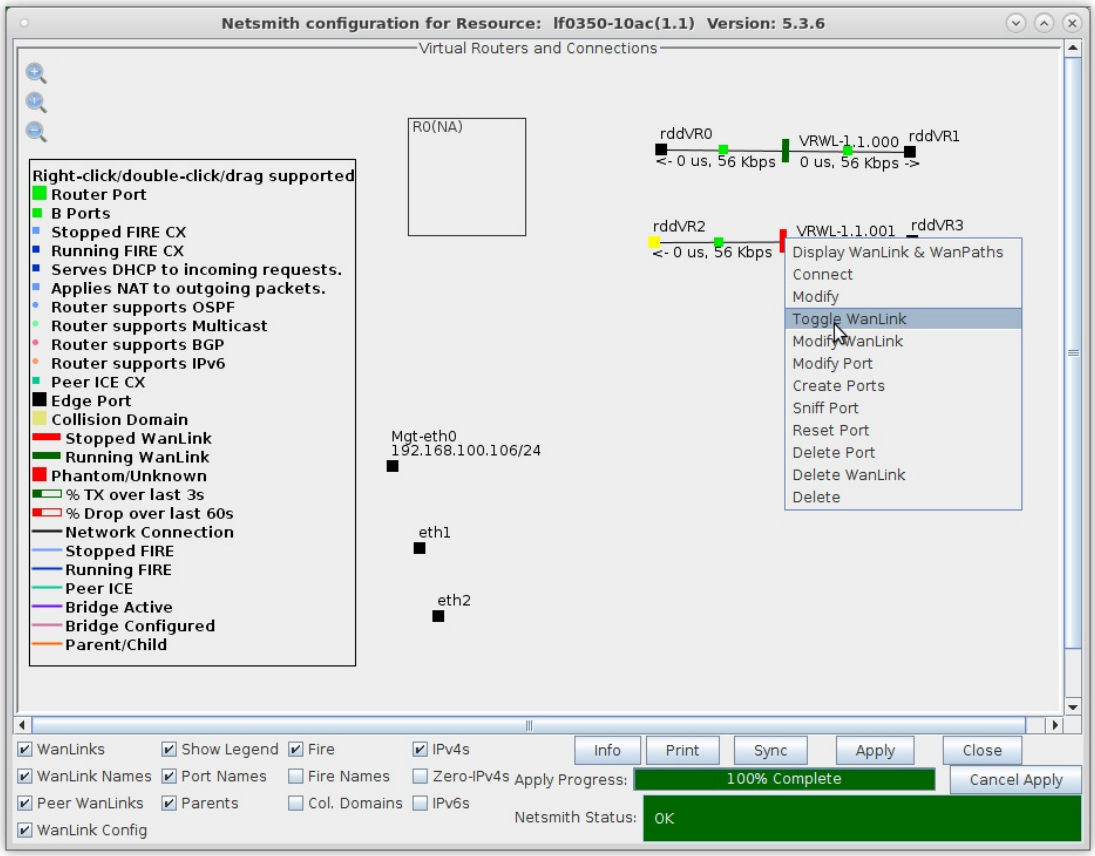
A. **NOTE**: Kernel-Mode allows for much higher emulation speeds and supports all features of the normal WAN emulation mode

B. Kernel-Mode is available for the WAN emulation if you are using a pre-compiled Linux kernel from the Candela downloads page

C. Right-click to toggle the WanLink status to Running (green).

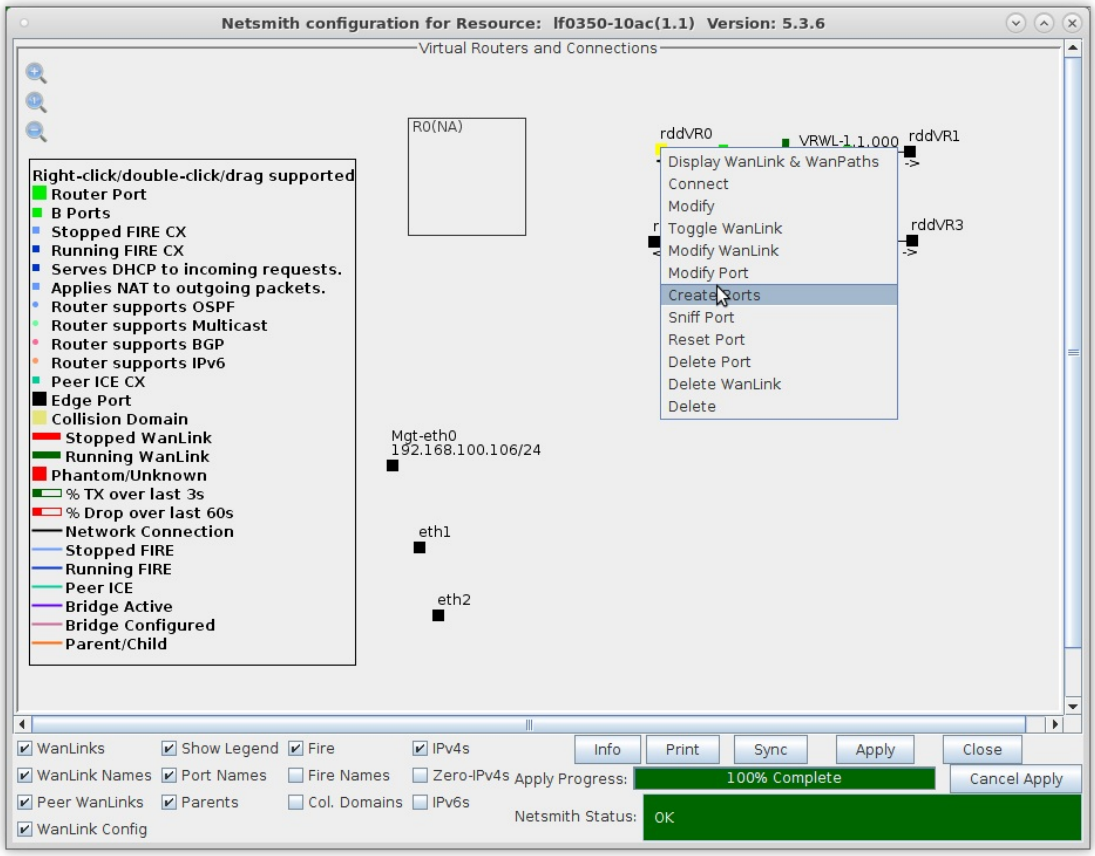


D. Repeat for the second WanLink and set it to Running (green).

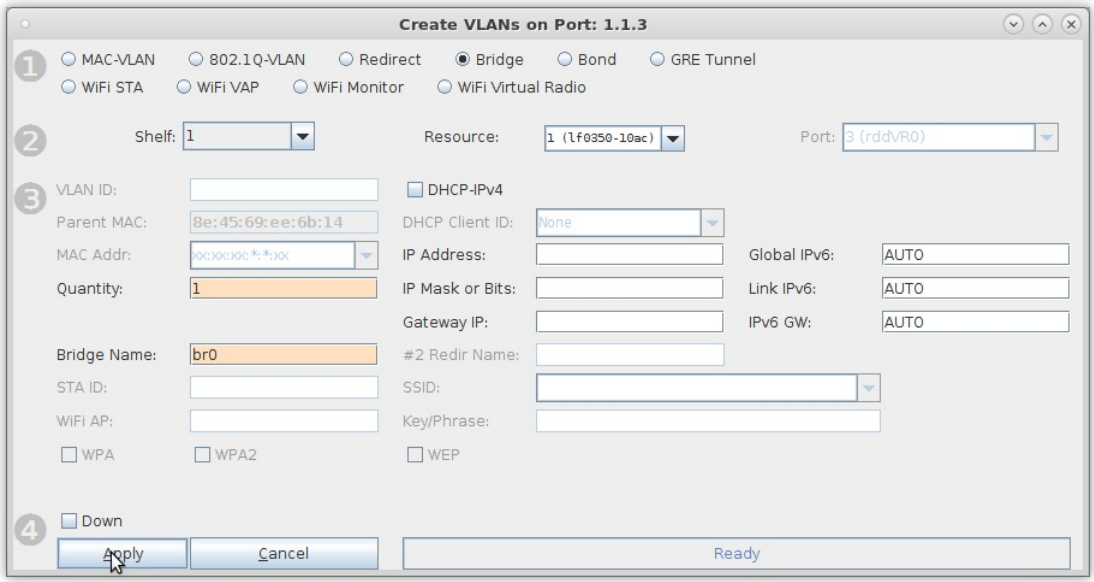


For more information see LANforge-GUI User Guide: WanLinks (ICE)

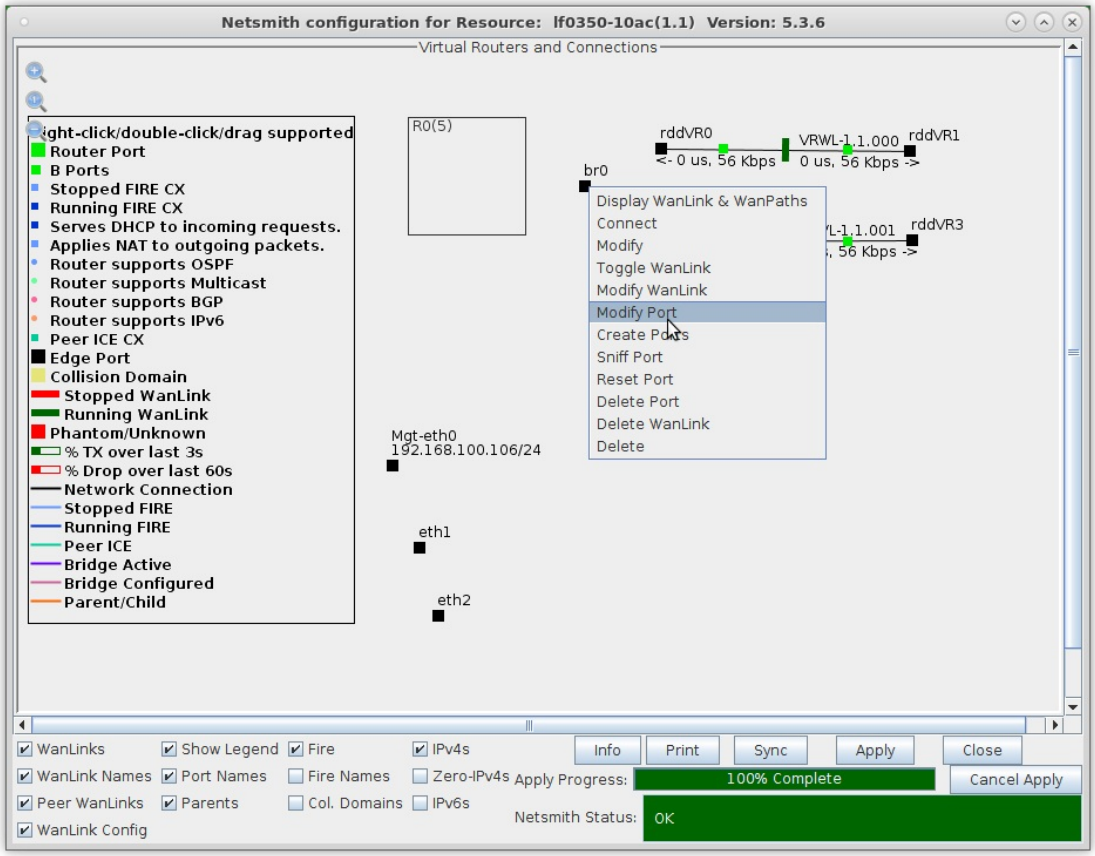
3. Setup the ports.
   A. Right-click port rddVR0 and select **Create Ports**



   B. Select the **Bridge** button from the available connection types, name it, and click **OK**

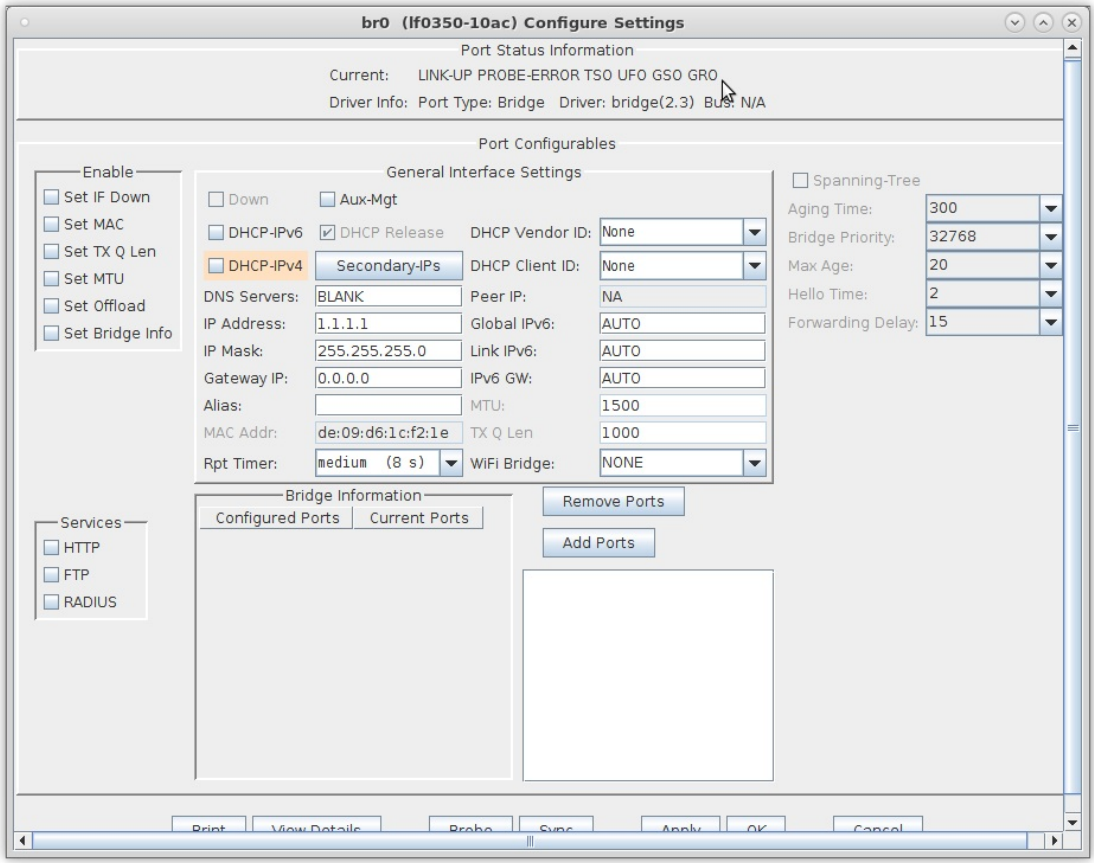


C. Right-click the bridge port and select **Modify Port**

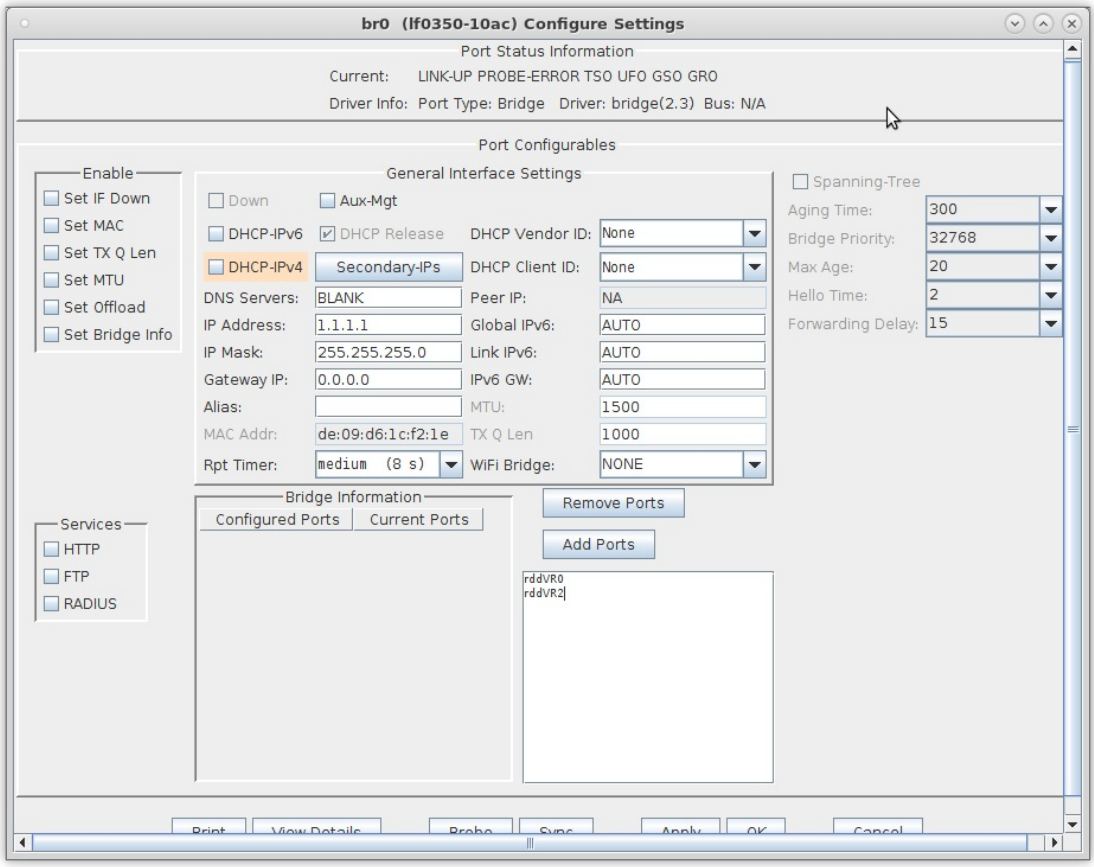


A. **NOTE**: You will have to click the **Sync** button for your newly created bridge port to appear in the Netsmith window.

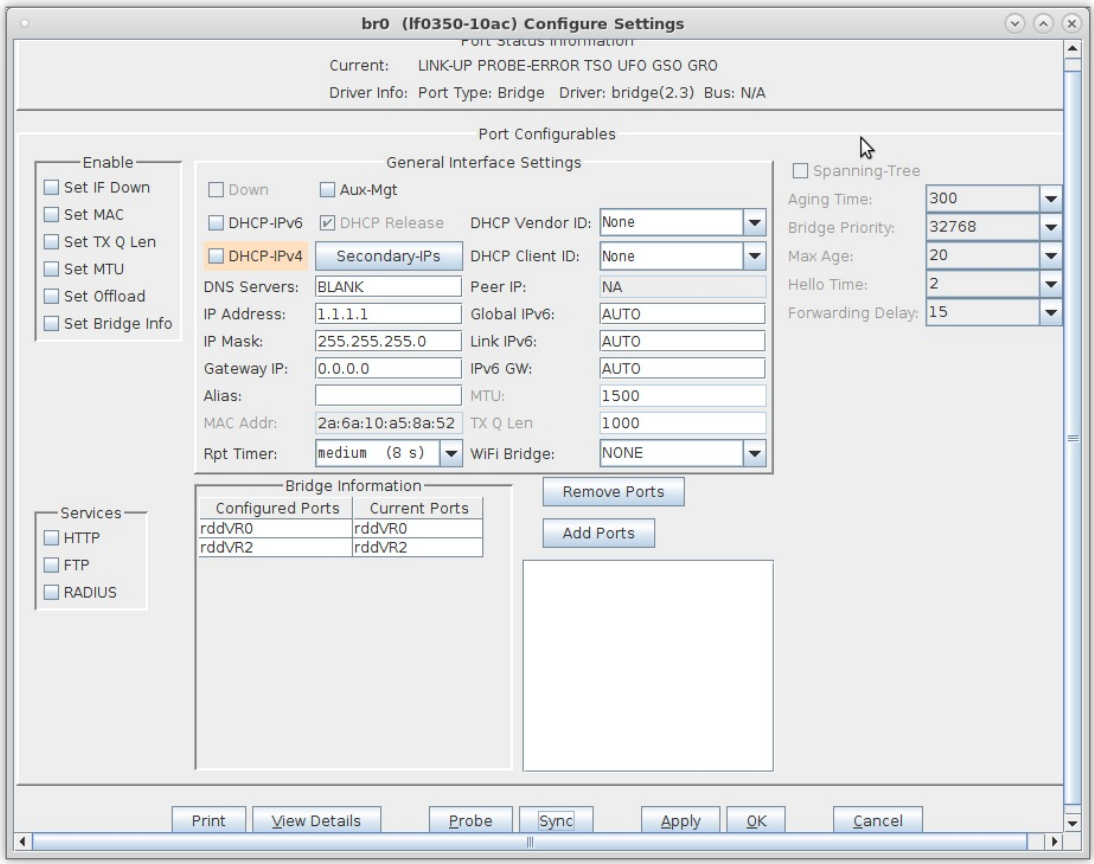
D. Assign an IP address and IP mask, then click **Apply**



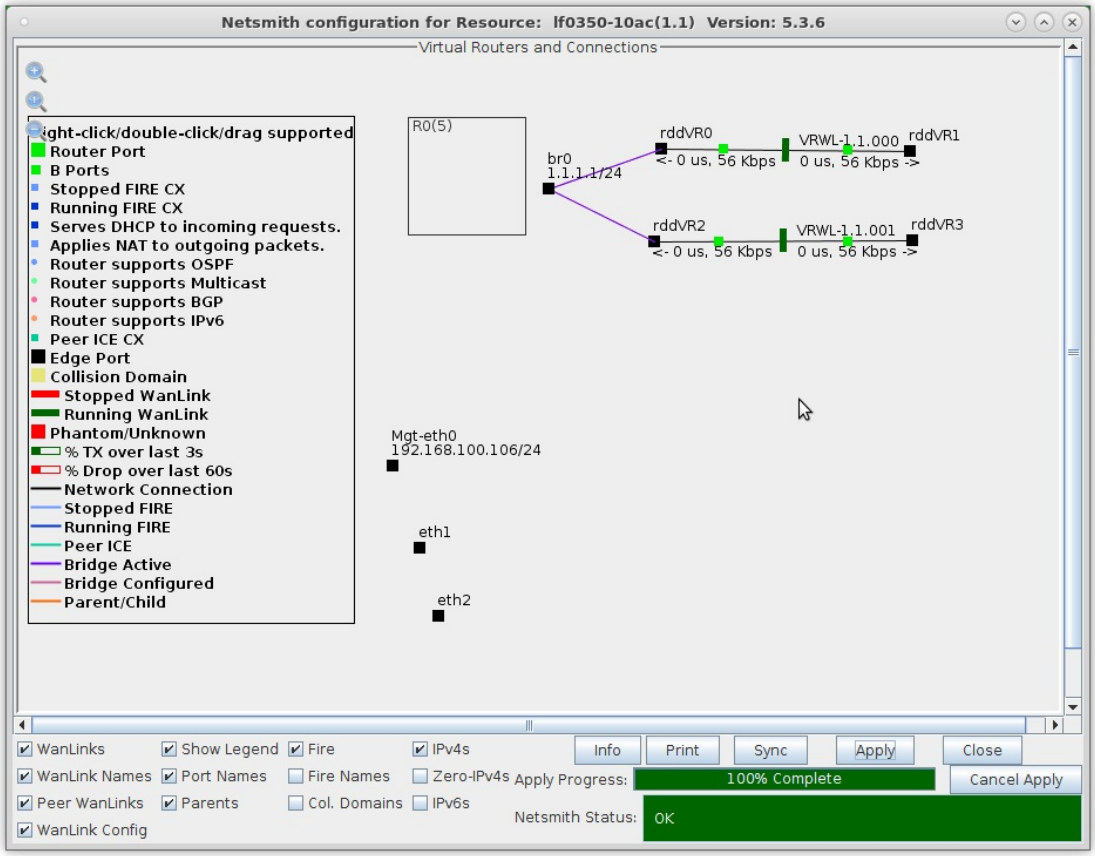
E. Enter interface names rddVR0 and rddVR2 in the whitespace located below the **Add Ports** button so that you can add them as bridge members



F. Click **Add Ports** to add the interfaces as bridge members, then click **OK**

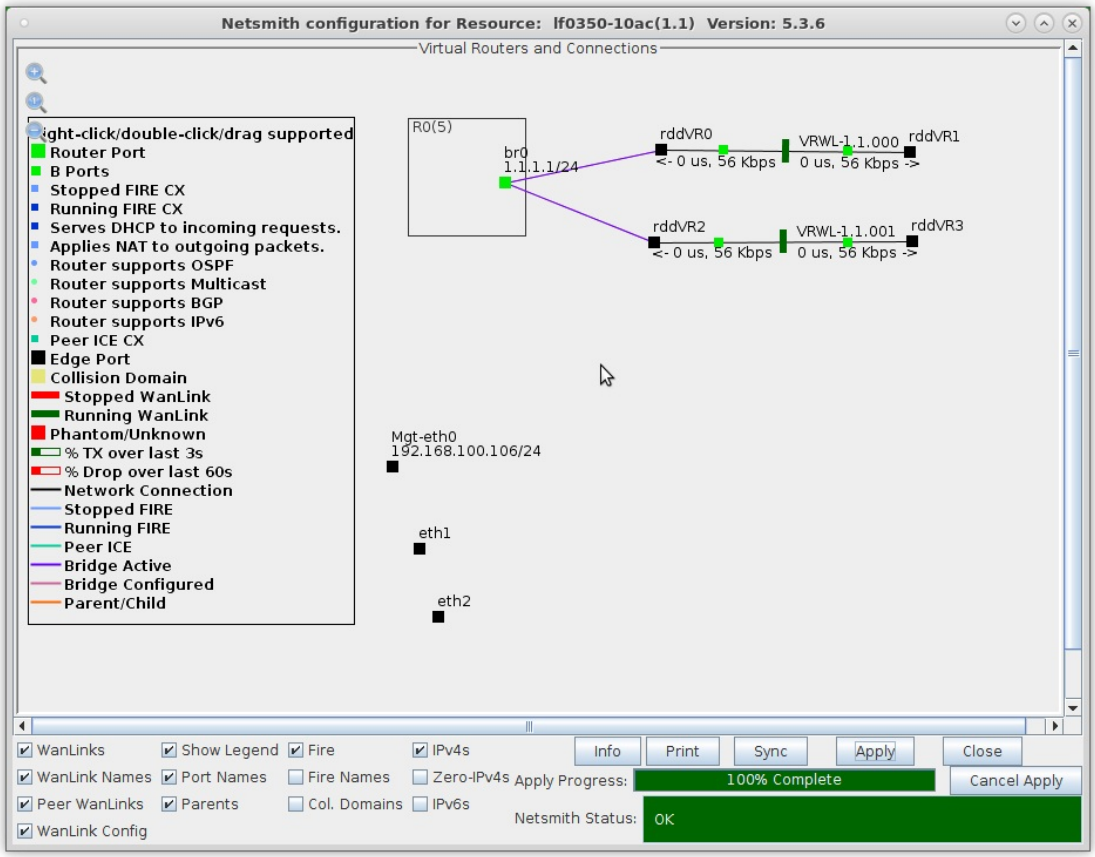


G. The Netsmith window now shows a bridge port with two bridge members

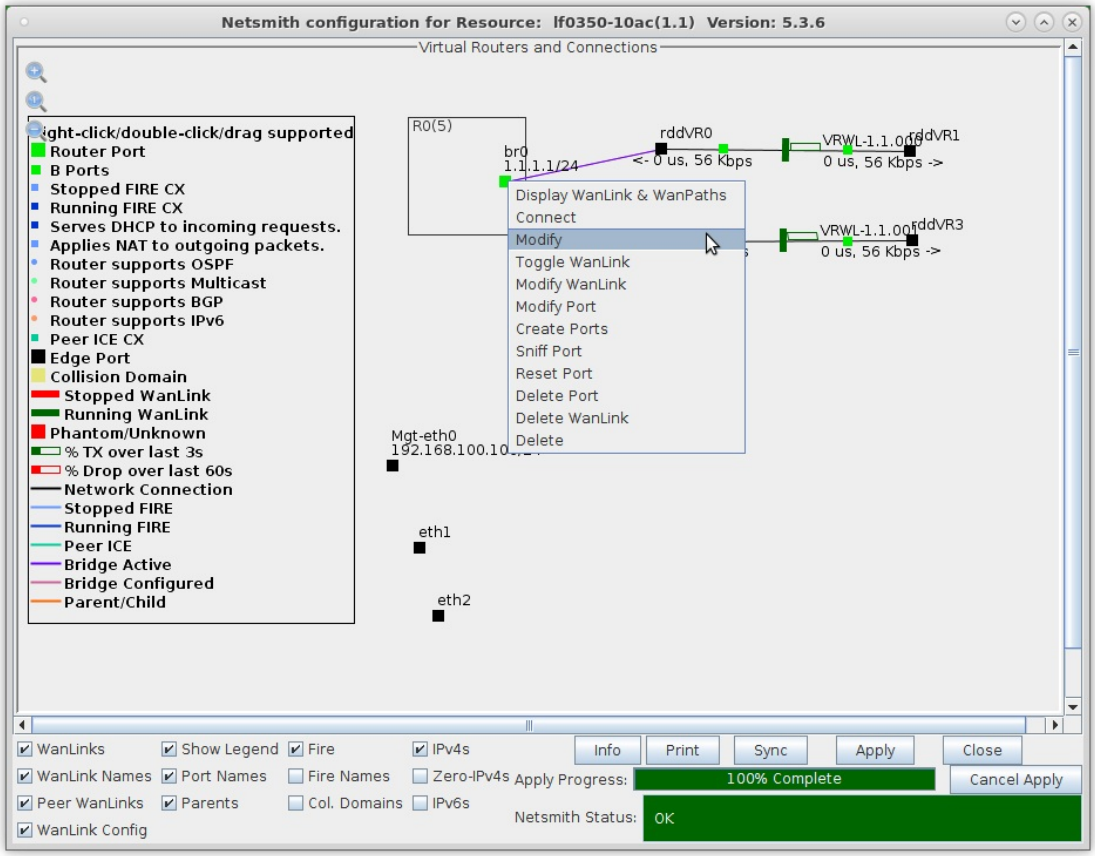


For more information see LANforge-GUI User Guide: Ports (Interfaces)

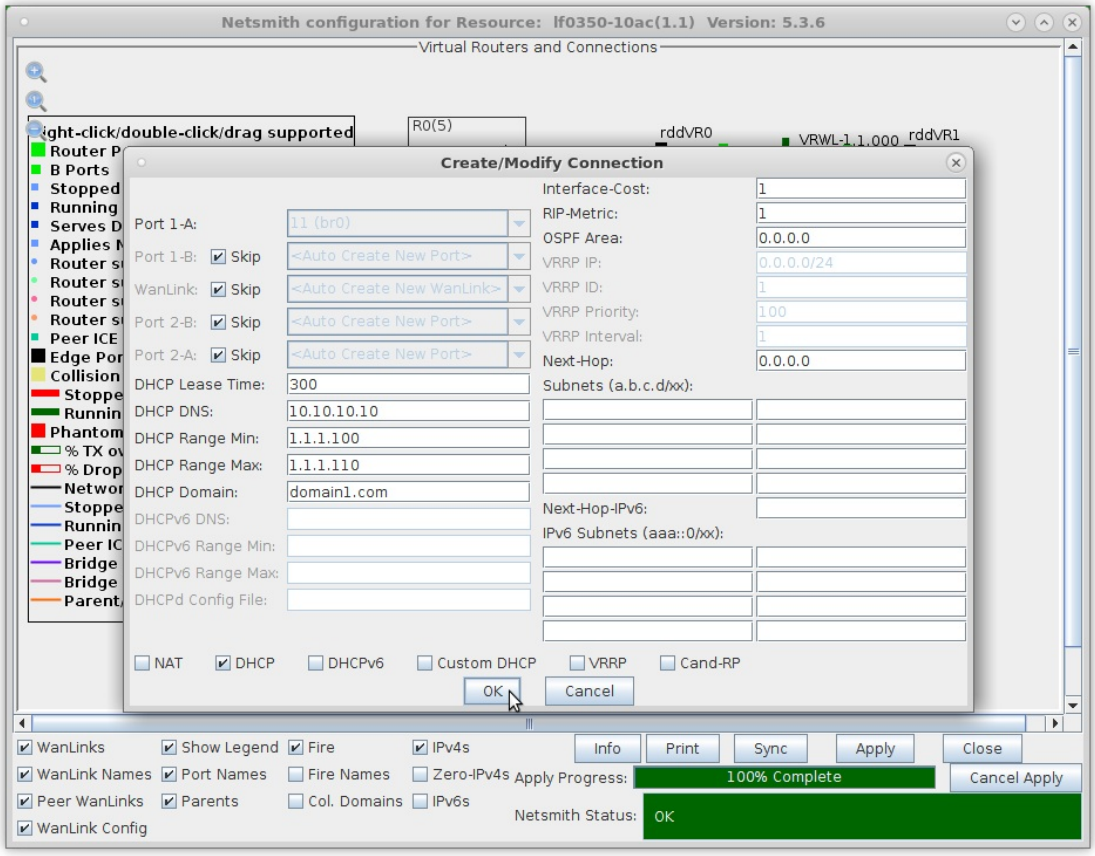
4. Setup DHCP Server and Clients.
   A. Drag the bridge port into the virtual router.



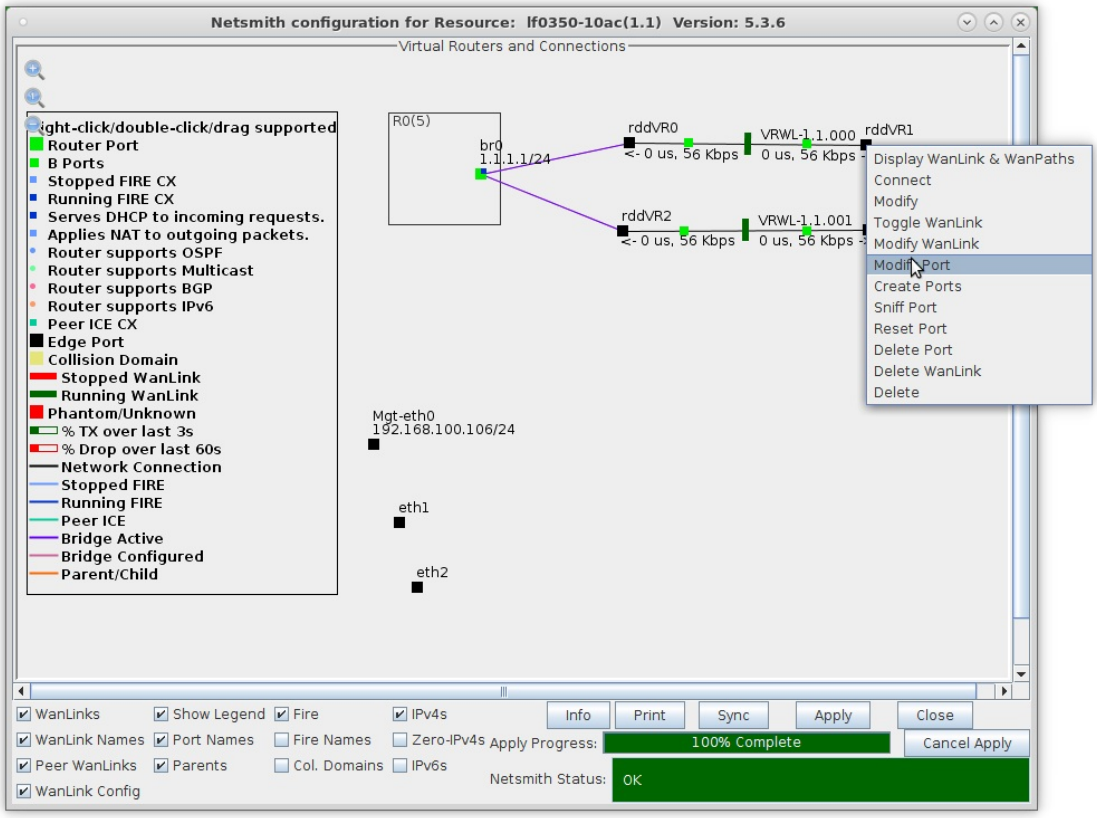
B. Right-click the bridge port and select **Modify**



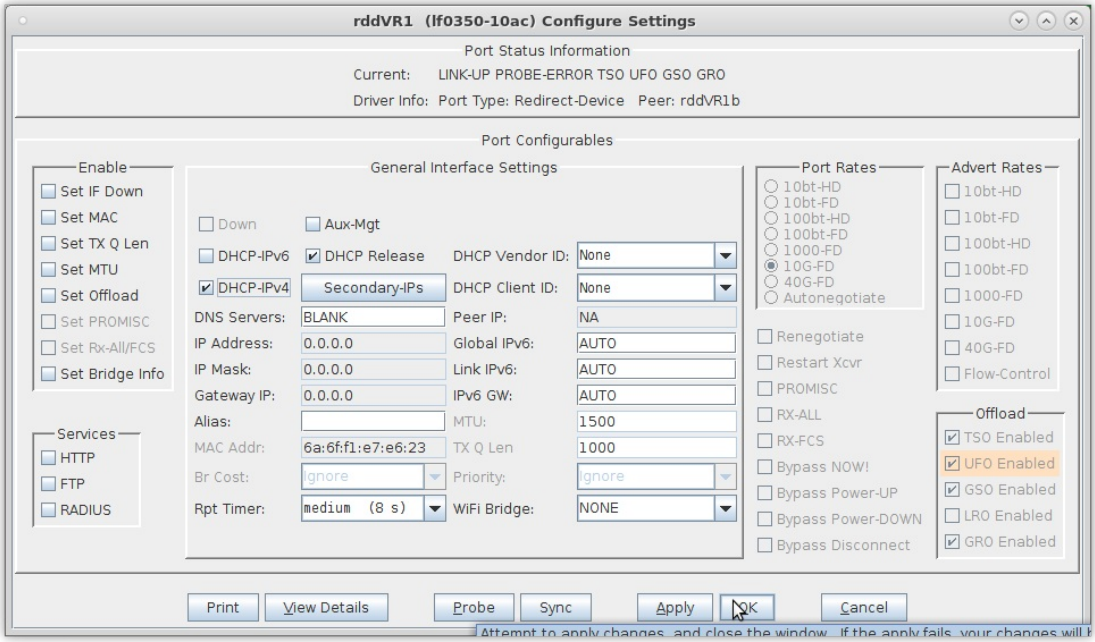
C. Select the 'DHCP' checkbox at the bottom of the window and enter in your desired DHCP Server configuration, then click **OK**



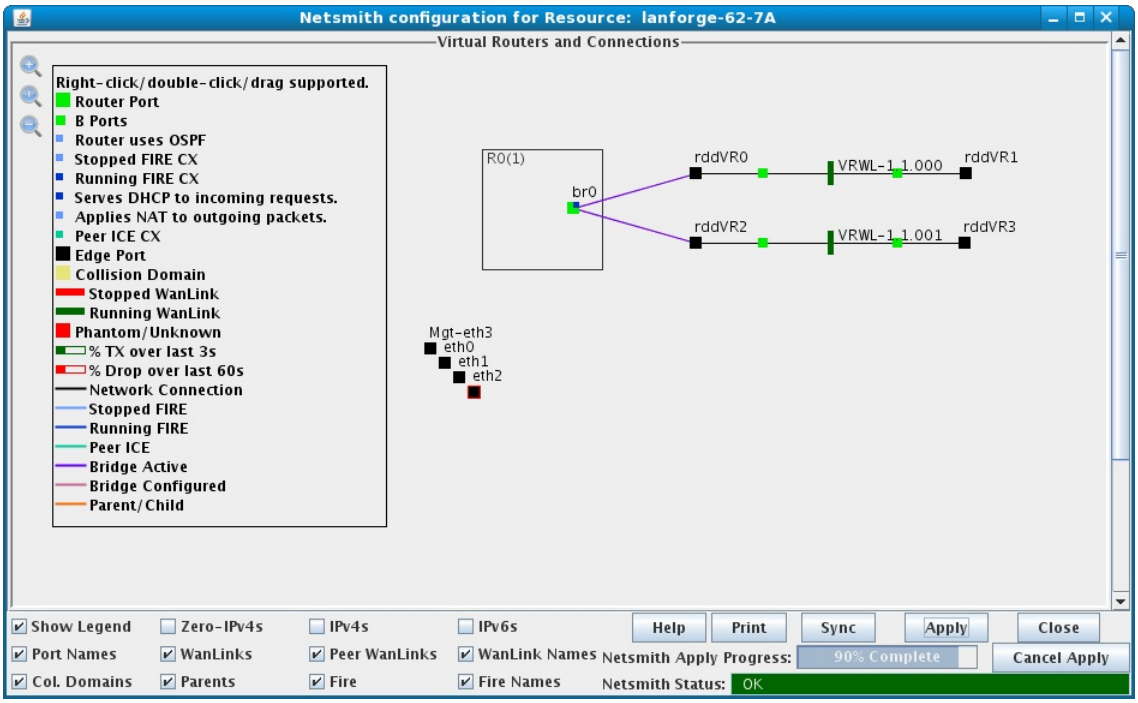
D. Right-click interface rddVR1 and select **Modify Port**



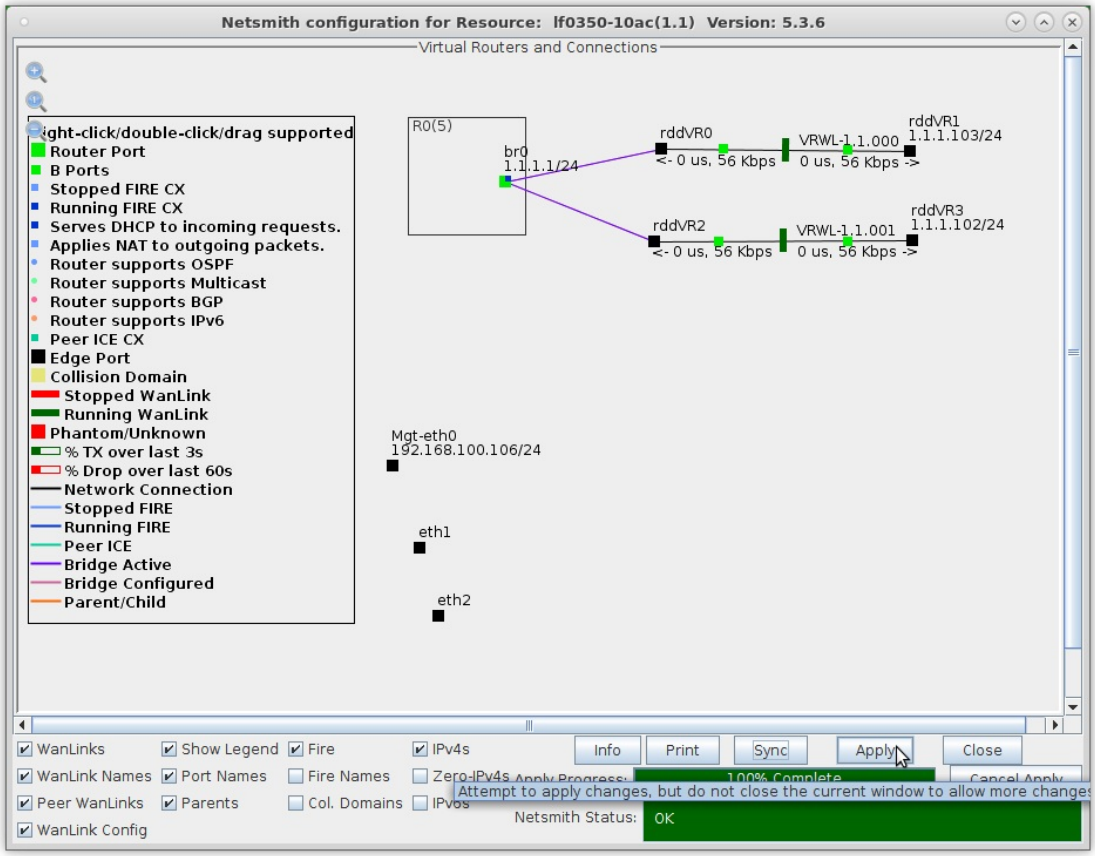
E. Select the 'DHCP' checkbox to make this interface a DHCP client, then click **OK**



F. Repeat for interface rddVR3, then click Netsmith **Apply**



G. After the Netsmith apply, DHCP clients will acquire IP addresses from the DHCP server

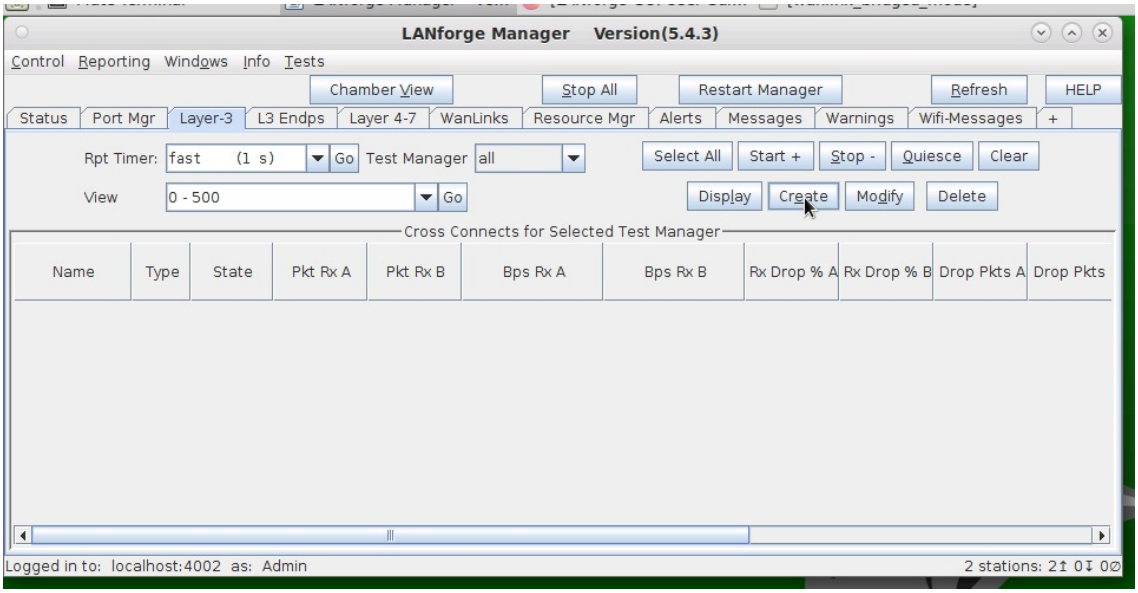


A. Select the 'IPv4s' checkbox at the bottom of the Netsmith window to see the IP addresses of the DHCP clients

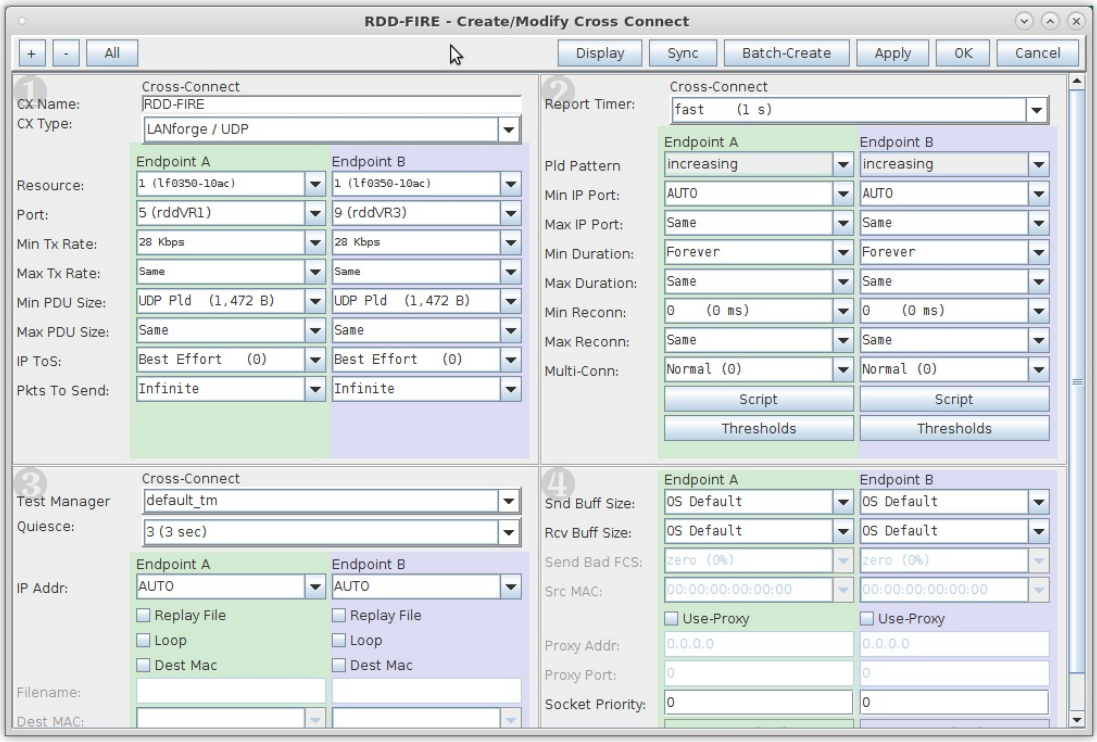
For more information see LANforge-GUI User Guide: Ports (Interfaces)

5. Create a Layer-3 Connection.

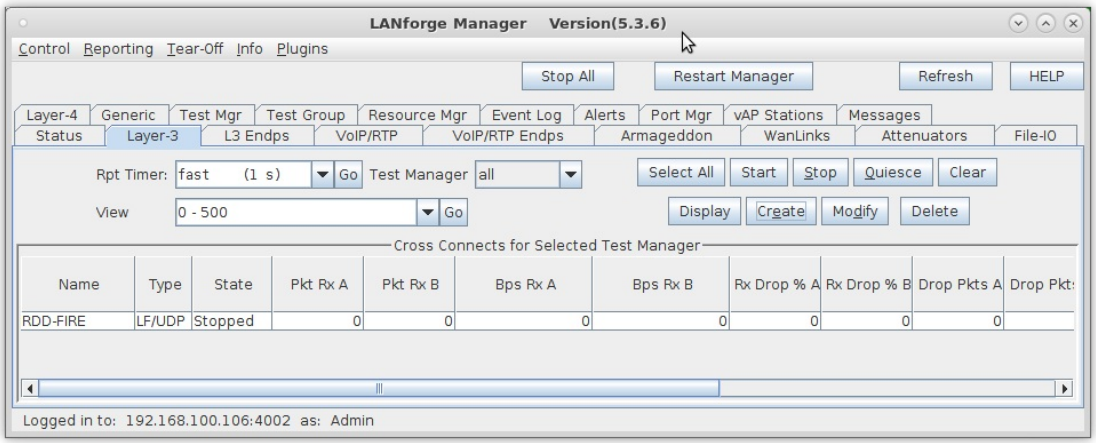
A. Go to the **Layer-3** tab and click **Create**



B. The RDD-FIRE connection for this example will use interfaces rddVR1 and rddVR3.

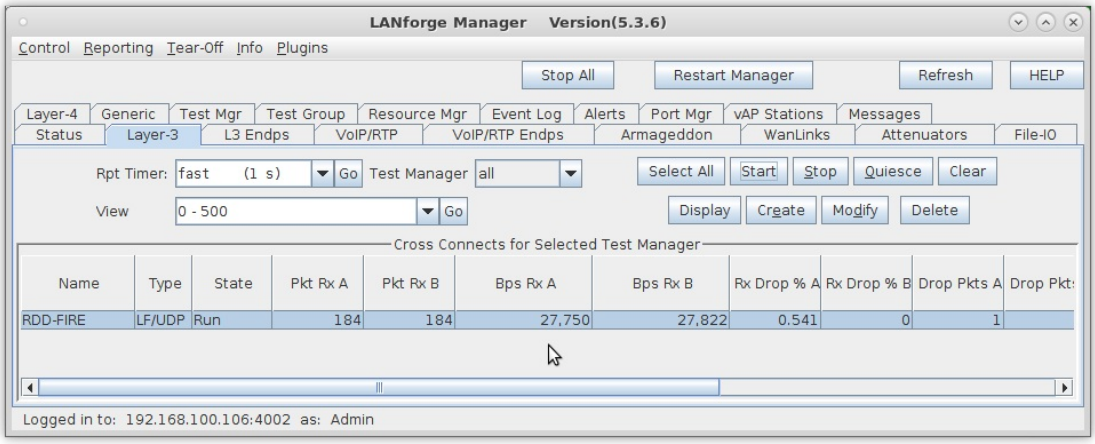


C. Verify the Layer-3 connection was created

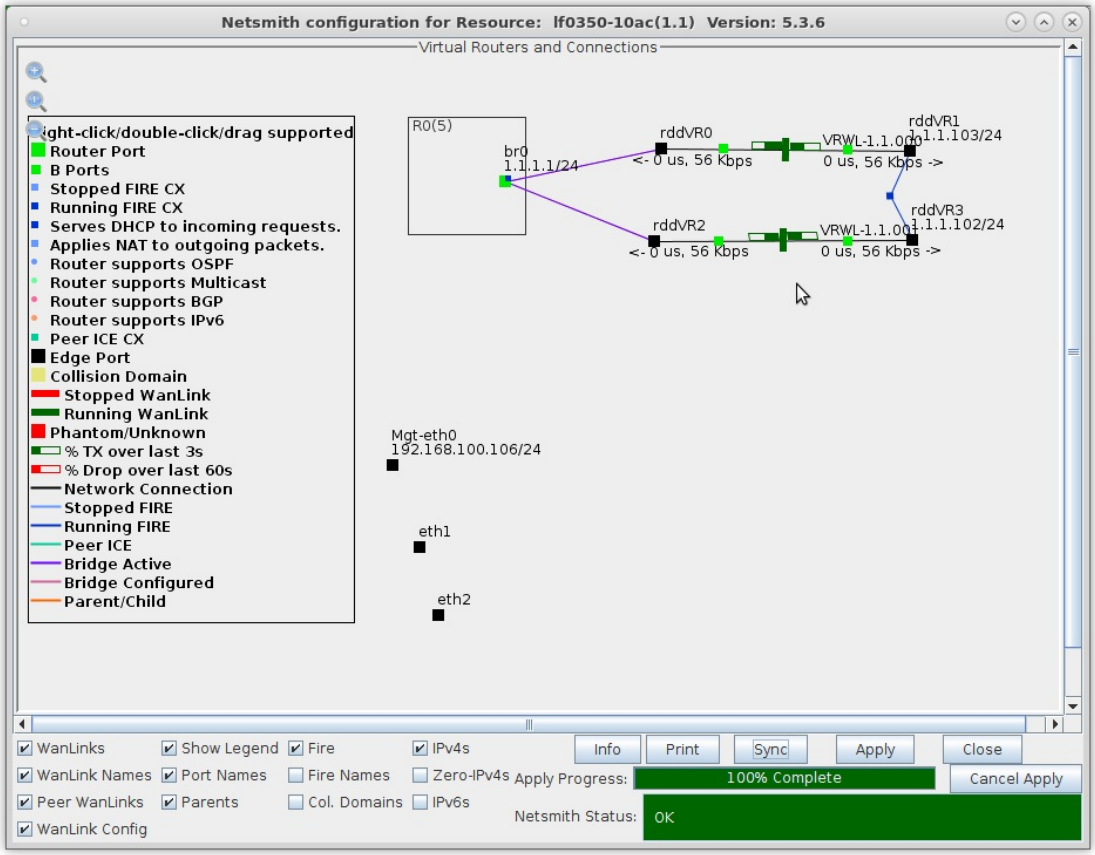


For more information see LANforge-GUI User Guide: Layer-3 Cross Connects (FIRE)

6. Run LANforge-FIRE to yourself through LANforge-ICE!
   A. Select the Layer-3 Cross Connect and click **Start**



   B. Go to the **Status** tab and click **Netsmith** to view the graphical representation of the setup



For more information see LANforge-GUI User Guide