



Radiolabs Bridge in a Box Setup

This manual will guide you through creating a point-to-point bridge using your Radiolabs equipment.

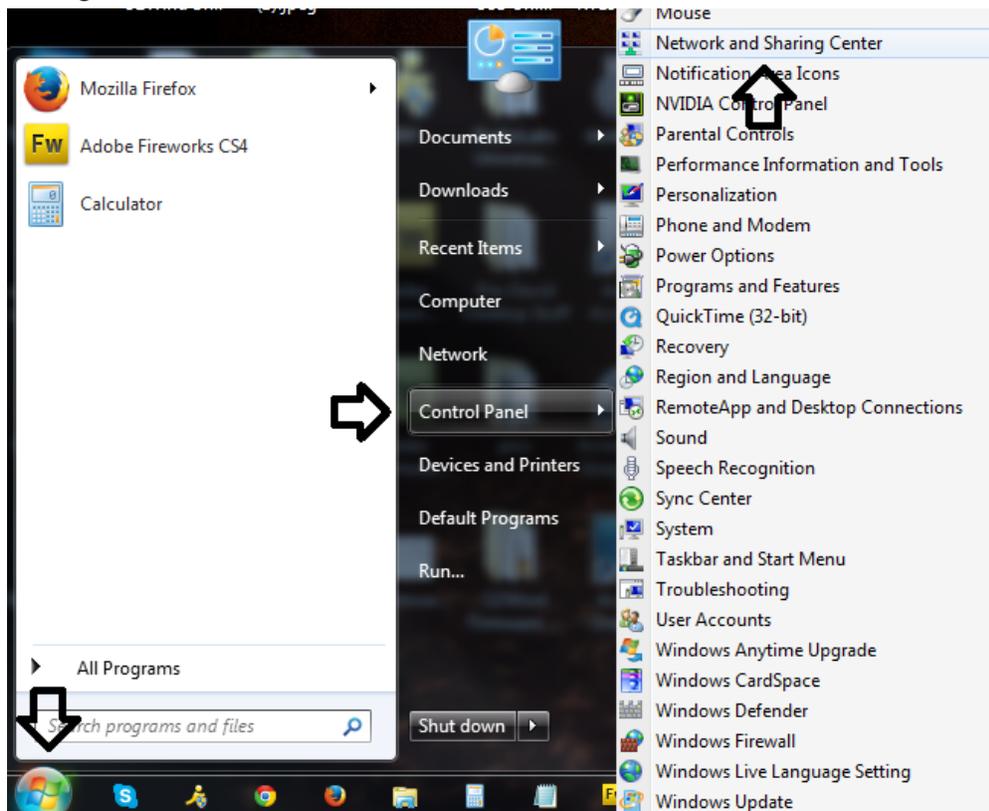
Step 1: Preparing for setup.

To set the bridge up, start by unboxing all of your equipment. In the box there are two radios, two power supplies, two antennas, and all the associated cables. It is important to not mix these two up as you are working on them, so it is recommended that you place a sticky note on one that says “**Primary**” and on the other that says “**Remote**”. This guide will refer to the radios by these terms from here on out.

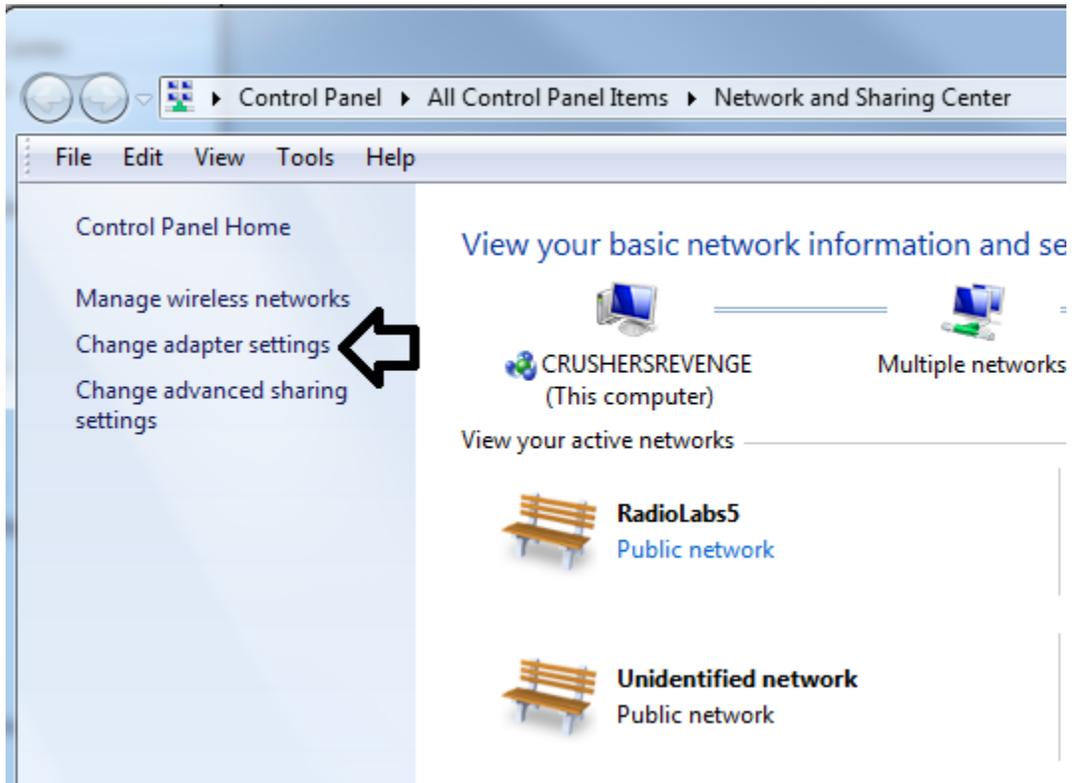
Plug in **both** power supplies, and connect each radio to the POE port of each power supply. Then, connect a third Ethernet cable from your computer to the **Primary** unit’s LAN port. No other cables need to be connected at this time.

Step 2: Change your computer’s TCP/IP V4 address

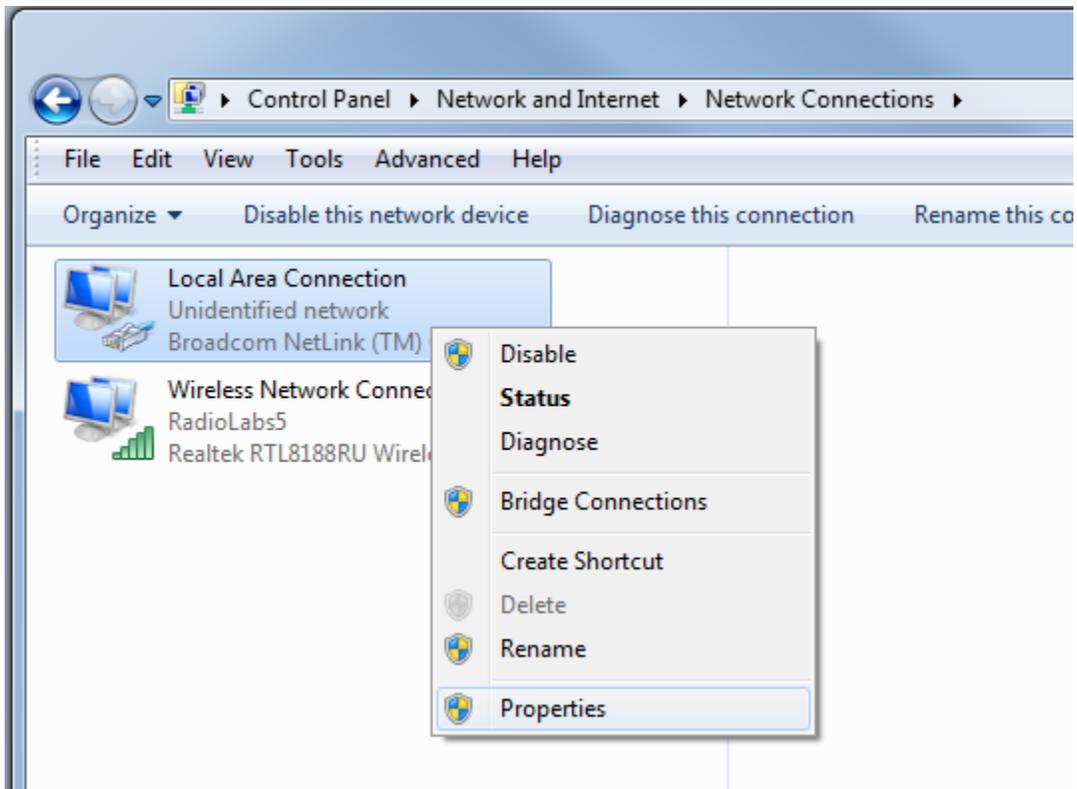
If you are running Windows, click the Start Menu. Then click Control Panel. Then click Network and Sharing Center.

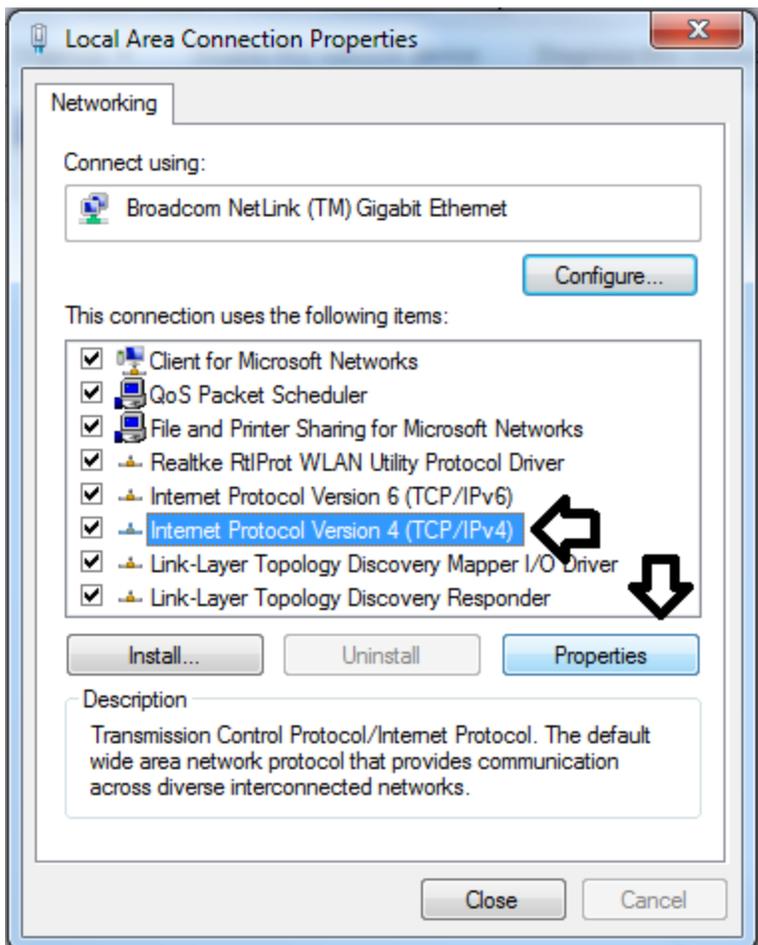


Click **Change adapter settings**.

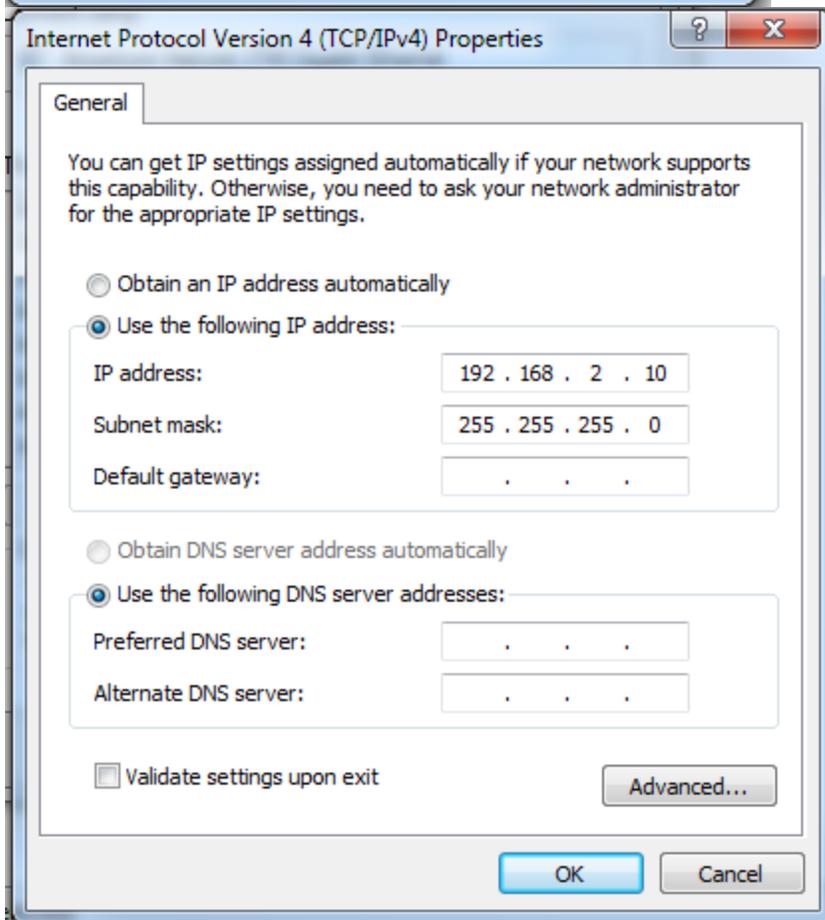


Right click on **Local Area Connection**, then click **Properties**





Click **Internet Protocol Version 4 (TCP/IPv4)**, then click **Properties**



Click **Use the following IP address** and match the info as seen here. Then click **OK**.

Step 3: Configure Primary radio

Open up a web browser (Google Chrome or Mozilla Firefox recommended), and navigate to **192.168.2.1**

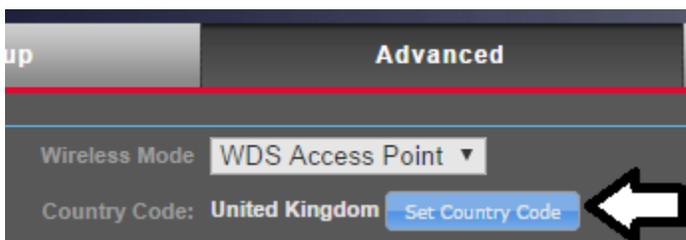
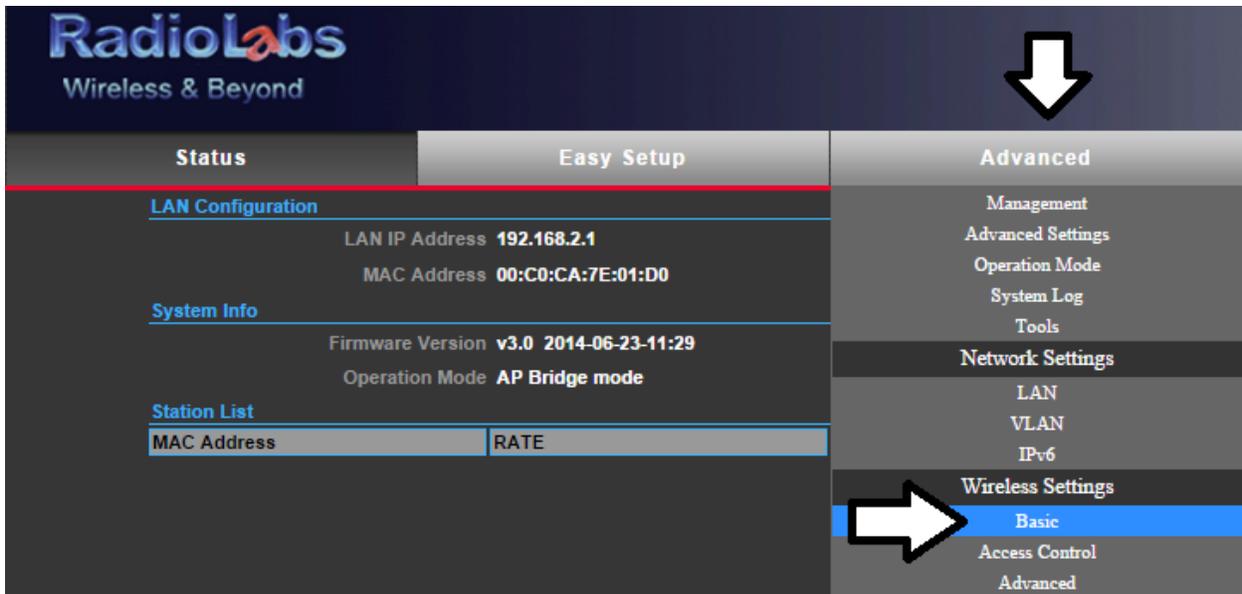


Log in information

User Name: admin

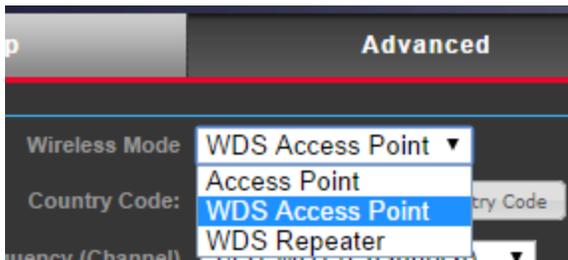
Password: admin

Click **Advanced**, and then click **Basic**

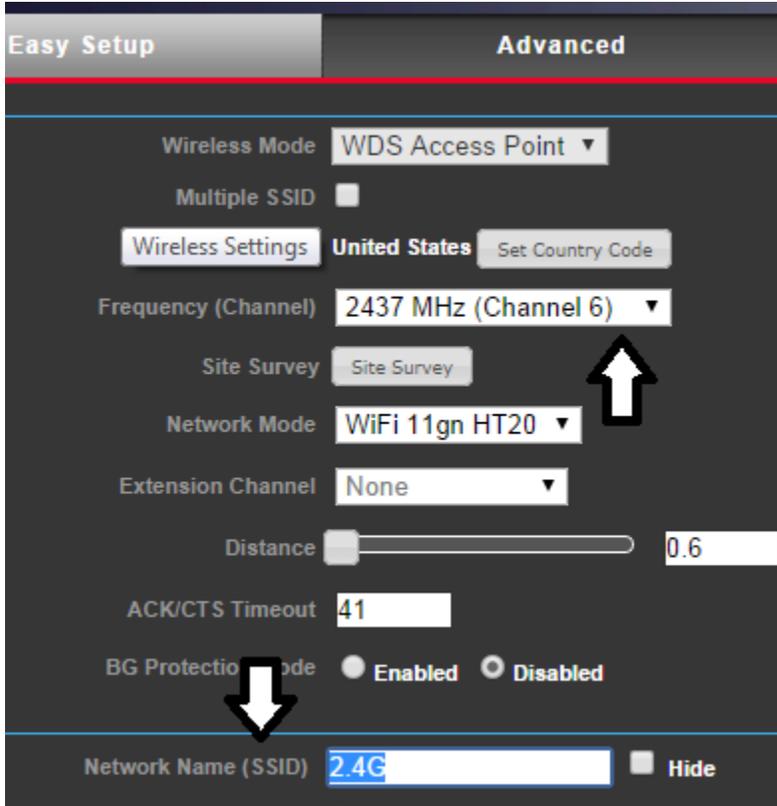


Click **Set Country Code**

Select your country of residence, and click Apply.

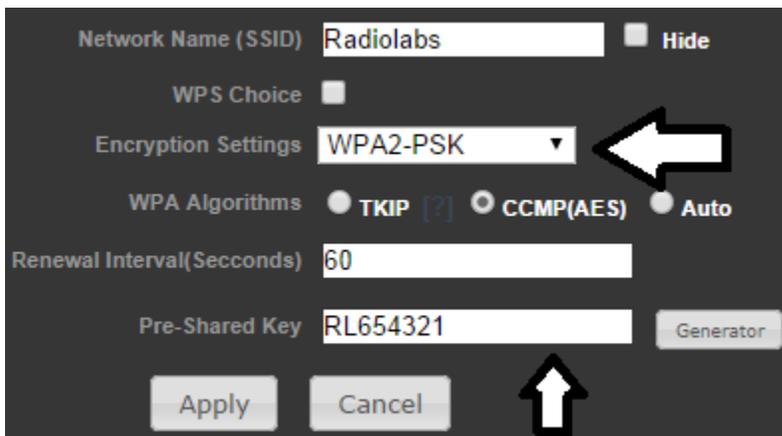


Set the **Wireless Mode** to **WDS Access Point**



Frequency (Channel) is set to 6 by default. If you are in an area with a significant amount of wireless activity, we recommend using **Channel 3** or **Channel 9**.

Network Name (SSID) is the name of the wireless link created by the two radios. Other WiFi devices will be able to see this. You may name it whatever you wish.



Encryption is recommended to keep devices from connecting to your link. The best type of security is **WPA2-PSK**.

Under the Pre-Shared Key field, type a password of your choosing, **eight characters or longer**.

When you're done, click **Apply**

Step 4: Configuring Remote radio

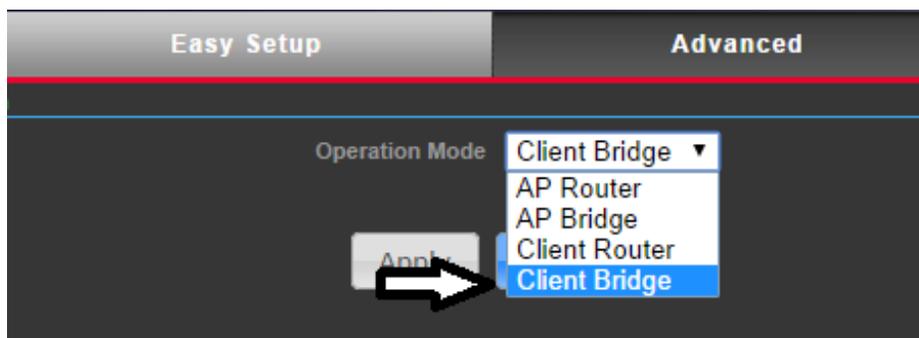
Now, disconnect the Ethernet cable from the **Primary** power supply, and connect it to the LAN port of the **Secondary** power supply. Open a new web browser window, and navigate to **192.168.2.1**



Log in information

User Name: admin

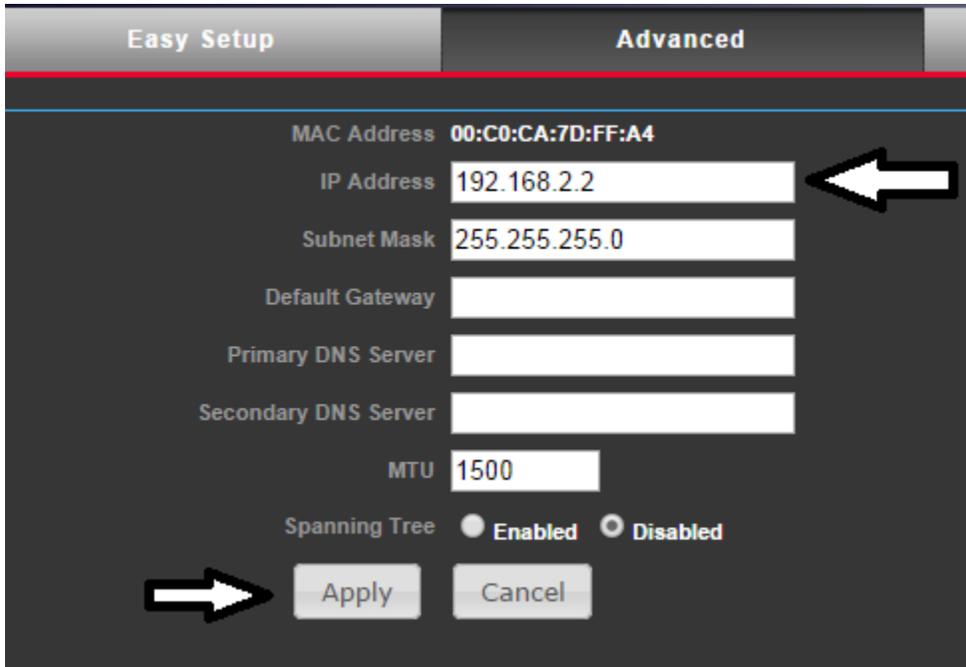
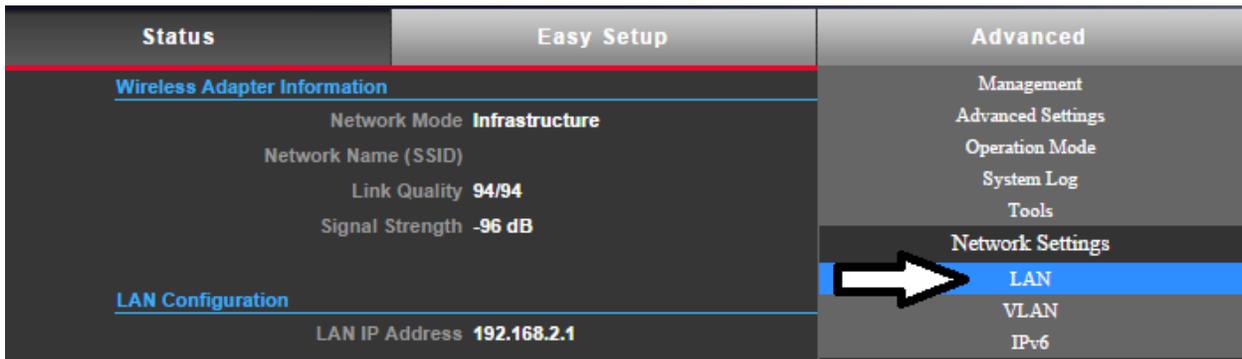
Password: admin



Click **Advanced**, then click **Operation Mode**.

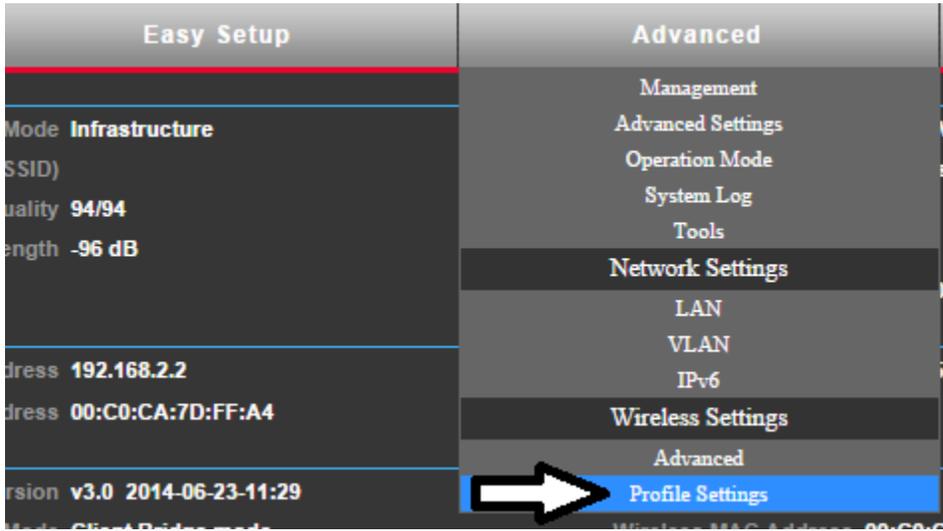
Choose **Client Bridge**, then click **Apply**.

Click **Advanced**, then click **LAN** under Network Settings

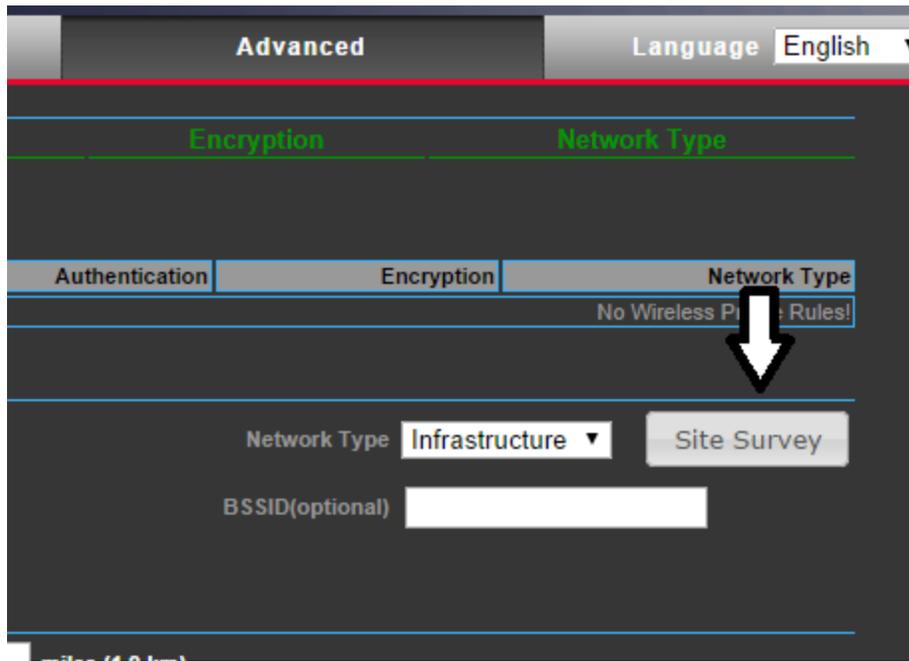


Change the IP Address to
192.168.2.2
Then click **Apply**

After the system reboots go back to your web browser and type in 192.168.2.2. Select the advance tab and go to profile settings

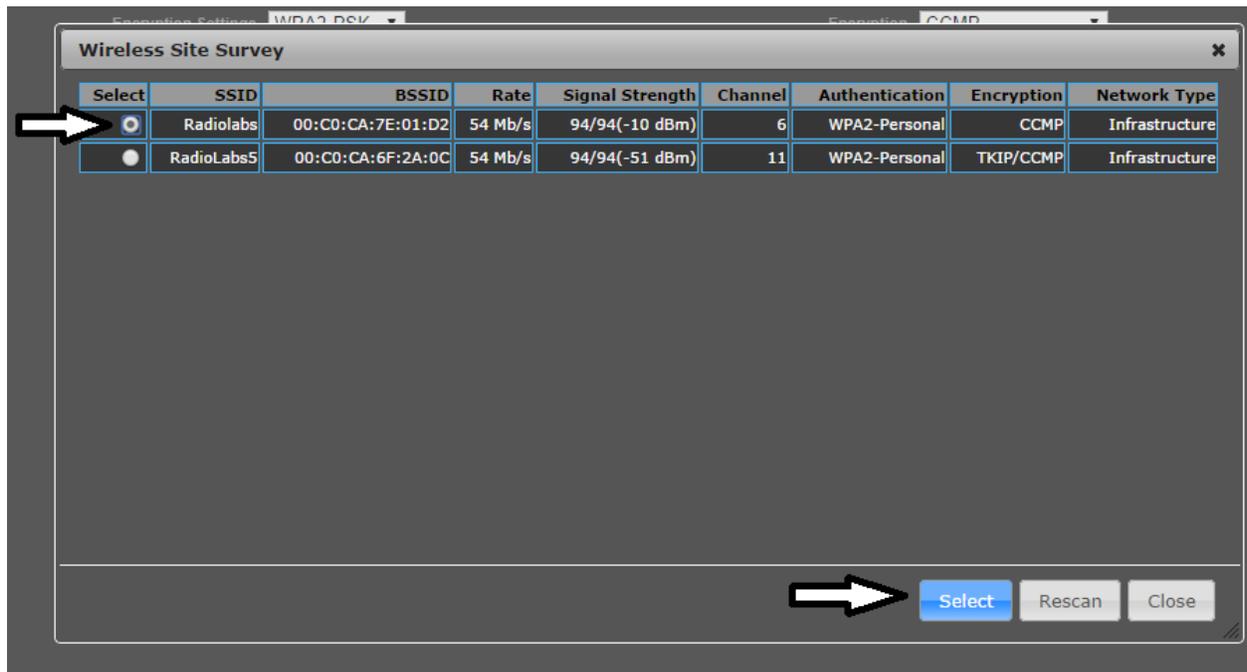


Click **Advanced**, then click
Profile Settings



Click Site Survey

Select the network being broadcast by the **Primary** radio (it was 2.4G by default), then click **Select**



If you decided to use encryption when setting up **Primary**, then you will need to enter that password under **Passphrase**.

Then, check the box that says **WDS Client**.

Then, click **Add**.

The screenshot shows the 'Profile Setup' interface. Under 'Profile Name', 'SSID', and 'Encryption Settings', the values are 'Radiolabs', 'Radiolabs', and 'WPA2-PSK' respectively. The 'Passphrase' field is filled with dots. Below this is the 'Ack Timeout Settings' section, which includes a 'Distance' slider set to 0.6 miles (1.0 km), 'ACK/CTS Timeout' set to 41, and checkboxes for 'RTS/CTS' and 'Fragmentation Threshold' (both unchecked). The 'WDS Client' checkbox is checked, and an arrow points to it. At the bottom right, there are three buttons: 'Activate', 'Add', and 'Delete'. An arrow points to the 'Add' button.

Click **Activate/Save**

The screenshot shows a dialog box titled 'Activate Profile'. The text inside asks 'Do you want to Save and Activate this profile?'. At the bottom, there are three buttons: 'Activate/Save' (highlighted in blue), 'Save Profile', and 'Cancel'. An arrow points to the 'Activate/Save' button.

Step 5: Verify bridge link

Now both ends of the bridge should be properly configured. To test, **navigate to 192.168.2.2**, and verify the firmware page comes up. Now, without switching any cables, **navigate to 192.168.2.1**. If that firmware page also comes up, everything is configured correctly. If not, then check to make sure all above steps were followed properly.

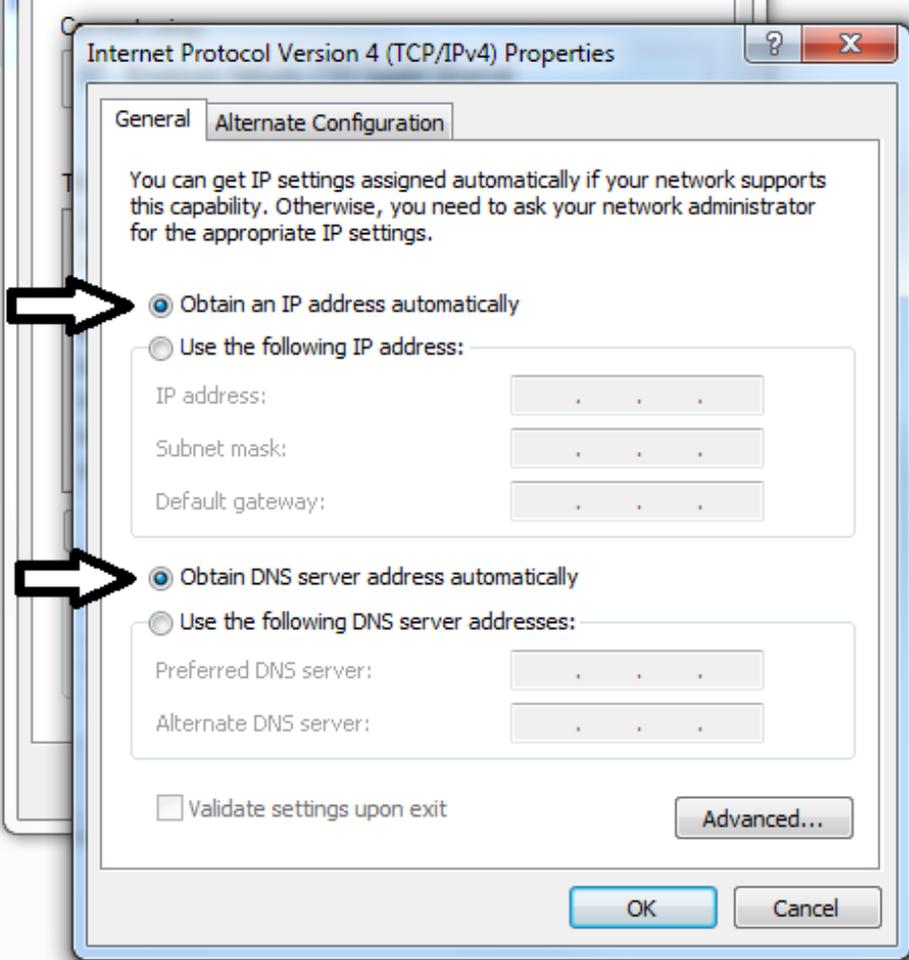
Step 6: Revert IP Address

Following the steps on **Page 1** of this guide, navigate back into **Network and Sharing Center**.

Click on **Change Adapter Settings**.

Right-click on **Local Area Connection**, then click **Properties**.

Click **Internet Protocol Version 4 (TCP/IPv4)**, then click **Properties**.



Click the button that says **Obtain an IP address Automatically**

And

Obtain DNS server address automatically.

Then, click **OK**.

Step 7: Deploy the bridge

Now the bridge is configured, so you need to deploy it. Plug the **Primary** radio into an open LAN port on your router (this is the side connected to the Internet). Mount the antenna, and connect it to the radio. At the remote location, connect the **Secondary** radio to its power source and to the antenna and mount the second antenna, pointing it at the first. You can tell when they are aligned properly when the four signal indicator LEDs light up.

You should not have full internet connectivity through the **Secondary** radio's Power over Ethernet LAN port. You can plug an Ethernet cable from this port into a wired device for direct internet connectivity, or plug it into the WAN port of a router. If you plug this into a router, it is recommended you disable the DHCP function of that router to maximize network connectivity.