Echolink

Echolink is a program that allows phones and computers to connect to a repeater or simplex radio node, or two repeaters to connect to each other over the internet. The program can run in either *Single-User* (client) mode or *Sysop* (server) mode.

Single-User

The *Single-User* mode is what you need to use to connect your smartphone or computer to a repeater over the internet. It's very useful to check in to nets or connect with other hams when you're out of reach from the repeater.

- The Windows program can be downloaded from the Echolink Download page
- The Android app can be found on Google Play
- The iOS app can be found on the App Store

In addition to downloading the right software, you'll have to validate your callsign with EchoLink to prove that you are licensed. Also see the authentication page for more details.

Sysop

The *Sysop* mode is used to interface a radio (or repeater) to the echolink system via the internet. I recently put together a node for our club consisting of:

- Kenwood TM-721A dualband radio
- SignaLink USB unit
- Cevana MiniPC (64GB HD / 4GB Ram) Windows computer

On the left is the Echolink setup, and on the right is the Winlink setup I'm currently working on pending a suitable antenna.

Configuration

Note: There are other configuration settings to look at. The ones shown here are mostly for getting the sound working.

Modem

- For my setup, I had to tweak the network settings in the router to allow traffic to find the Echolink computer. See more here.

Windows 10

To configure the Signalink unit properly:

- Right click on the speaker icon on the lower right corner and select "Sounds"

- Under the "Playback" tab, I changed the name of the USB device to "Signalink", set it as the default, and disabled all the other playback devices since this computer isn't used for anything else than Echolink.

  - I also changed the audio to "FM Radio Quality".

- I did the same for the "Recording" tab

- In the "Sounds" tab, I selected "No Sound" otherwise, Windows sound would be transmitted on the air. Here, if you don't disable the other playback devices, you could simply ensure that the windows sound go to the speakers, but I wanted to keep things as simple as possible.

Echolink Program

- Under "Tools" > "Setup…", select the Signalink devices for the Input and Output devices and apply the 300Hz High pass filter and clicked the "Calibrate" button which changed the Fine Tuning number automatically.

- Under "Tools" > "Sysop Settings…", configure the RX and TX VOX settings.

- I also disabled the DTMF so as to not conflict with the IRLP node. Users can still connect to Echolink on their phones and computers, but can't control it from their radio.