

# EchoLink and Some Other Voip Program Modes of Operation

---

EchoLink to be discussed shortly  
eQSO – similar to EchoLink [www.eqso.org](http://www.eqso.org)  
D-Star – DV Dongle  
QSONet – Simulated HF radio  
<http://qsonet.com/index.html>

# EchoLink

A VOIP Enhancement to Ham Radio

# What Is It?

- EchoLink® is software developed to allow licensed Amateur Radio stations to communicate with one another over the Internet, using voice-over-IP (VoIP) technology.
- The program allows worldwide connections to be made between stations, or from computer to station, greatly enhancing Amateur Radio's communications capabilities.
- It is a Windows based, user friendly program.
- There are more than 144,000 registered users in 152 nations worldwide!

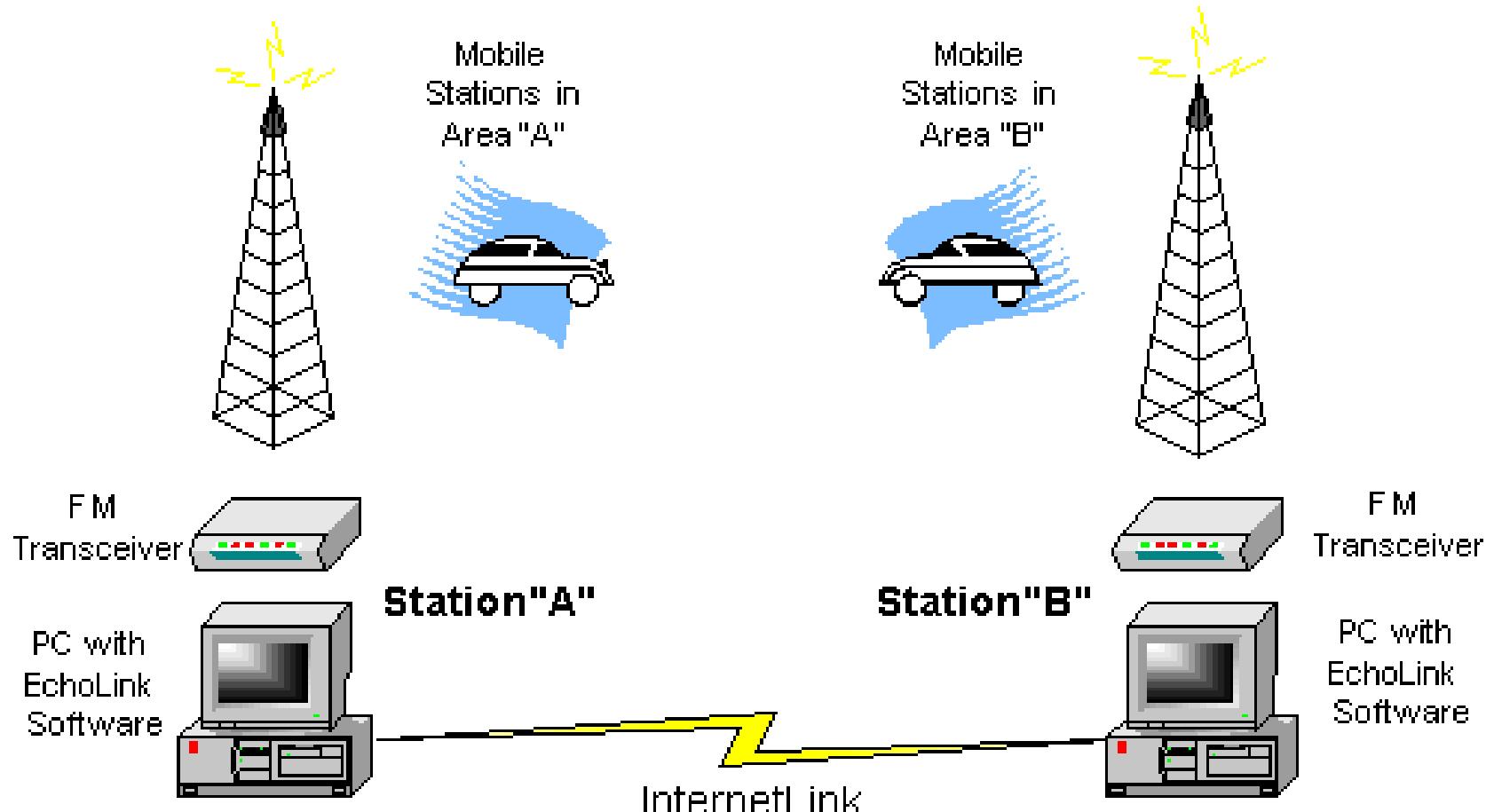
# Where/How do you get it?

- Obtained by going to [www.echolink.org](http://www.echolink.org), downloading and the installing the software.
- Once installed, User must register and wait for a period to have his/her radio call verified as a valid amateur radio licence (usually only a few hours).

# Types of Installation

- Simple Installation on user's computer.
- Simplex Station Installation
- Repeater Station Installation

# Linking Example



# What Does it Look Like?

EchoLink - K1RFD-L

File Edit Station Tools View Help

813 stations on cygnus (21% are busy)

Locations

- Asia (21)
- Europe (46)
- North America (687)
  - Canada (72)
  - Dom. Republic (1)
  - Mexico (4)
  - United States (610)
- Oceania (10)
  - Australia (6)
  - New Zealand (4)
- South America (12)

Node Types

Alarms

New (39)

Favorites

Index View Explorer View

2 stations connected  
K1RFD, AK8V  
Host synergistics

TX [Progress Bar]

Ready

Station Summary

	Free	Busy	Total
Repeaters:	160	20	180
Links:	225	29	254
Users:	219	123	342
Conf Svrs:	37	0	37
Total:	641	172	813

EchoLink 1.1  
> K1RFD-L  
K1RFD  
AK8V

United States	610
Canada	72
United Kingdom	14
Japan	12
Brazil	9
Sweden	7
Philippines	7
Italy	6

Connection Statistics

K1RFD - jonathan	GNARCl2
AK8V - jonathan	synergetics

Sent Received

Control Packets:	53	Control Packets:	58
Data Packets:	1005	Data Packets:	4
Send:	[Text Box]	Out of Sequence:	0
Net:	[Text Box]	Missed:	0
Audio:	[Text Box]		

Connected TX SIG PTT

## Why Have It?

- For licensed hams, EchoLink® software opens up new possibilities for communicating around the world with other amateurs. Your PC links you or your local repeater to any of thousands of other stations over the Internet.
- Or, you can use the PC's microphone and speakers and remotely connect to any of more than 2,000 different repeaters that have EchoLink capability.

## How to Use It

There are several different ways you can use the EchoLink software.

- You can set up a "simplex link" in your shack, with a VHF or UHF transceiver connected to your PC, to allow anyone in range of your station to communicate by voice with any other EchoLink station around the world.
- Or, you can use the PC's microphone and speakers and remotely connect to any of more than 2,000 different repeaters that have EchoLink capability.

## Useful Features

- Test Server – Allows you to find out how you are sounding to others.
- Type message to other party, even while they are talking.
- Choices of PTT control – Tap on space bar, Hold space bar etc.
- Transmission strength indicator.
- Long list of faqs on web site to help with problem solutions.
- List of operation hints on startup to help get the most from the program.

## Radio Interfaces

To operate a Simplex link or Repeater link, ("sysop" mode), you will need a special interface device such as Rigblaster which connects your radio equipment to your computer sound card.

This device allows the computer to control the PTT function of your transceiver, and (optionally) to accept and process DTMF commands from the receiver.

# Potential Problems (Ones I have had)

1. Some sound cards have too soft a sound, and voice is not picked up well with a normal computer desktop microphone. Solution is to get a headphone and mic combo set. I am told USB mics work better.
2. Linksys wireless network has a firewall which does not allow free two way communication. There are various solutions:
  - Turn off or bypass the router – **Not Recommended !**
  - Solutions offered by EchoLink – Web page has helpful solutions. Usually it is a matter of opening a couple or a few of the router ports.
  - Diagnostic software can be downloaded free from the website.
  - Purchase software such as PortForward. This costs a few dollars but saves much time.
  - Talk to someone who has installed it and use his/her solution.

## In Summary:

- It is a very good way to get in touch with other hams around the world
- It is particularly useful during poor RF conditions
- It is useful to keep your hand in ham radio when radio operation is no longer possible due to personal circumstances.