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# EchoLink and Some Other Voip Program Modes of Operation

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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>

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# EchoLink

A VOIP Enhancement to Ham Radio

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# 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!
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# Where/How do you get it?

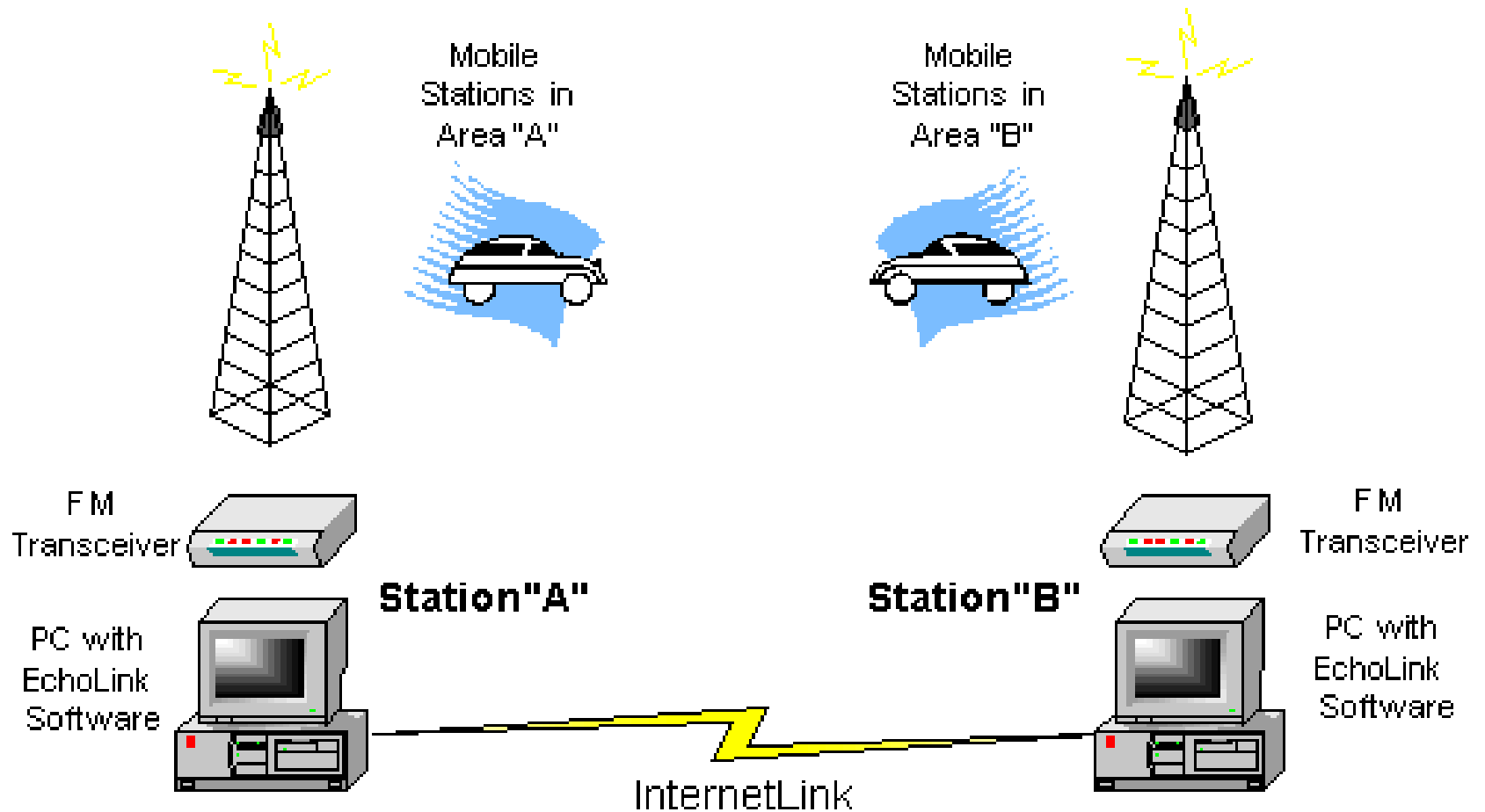
- Obtained by going to [www.echolink.org](http://www.echolink.org), downloading and the installing the software.
  - Once installed, User must register and wait for a period to have his/her radio call verified as a valid amateur radio licence (usually only a few hours).
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#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

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



# What Does it Look Like?

The screenshot displays the EchoLink software interface. The main window, titled "EchoLink - K1RFD-L", features a menu bar (File, Edit, Station, Tools, View, Help) and a toolbar. On the left, a tree view shows "813 stations on cygnus (21% are busy)" with categories like Locations (Asia, Europe, North America, etc.) and Node Types. The central pane lists stations with columns for "Station" and "Location/Description". The right side contains several panels: "Station Summary" with a table of Free, Busy, and Total counts for Repeaters, Links, Users, and Conf Srvrs; a geographical breakdown table; "Connection Statistics" showing active connections; and a status panel with "Sent" and "Received" packet counts. At the bottom, a status bar shows "2 stations connected" (K1RFD, AK8V) and a TX indicator.

**Station Summary**

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

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

**Connection Statistics**

K1RFD - jonathan	GNARC2
AK8V - jonathan	synergenics

**Status Panel**

Sent		Received	
Control Packets:	53	Control Packets:	58
Data Packets:	1005	Data Packets:	4
Send:		Out of Sequence:	0
Net:		Missed:	0
Audio:			

TX [Progress Bar]

Ready Connected TX SIG PTT

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## 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.
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## 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.
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## 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.
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## 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.

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## 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.
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## 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.
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