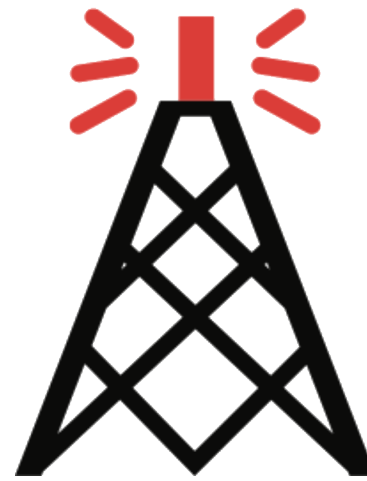


# Introduction to “EchoLink”

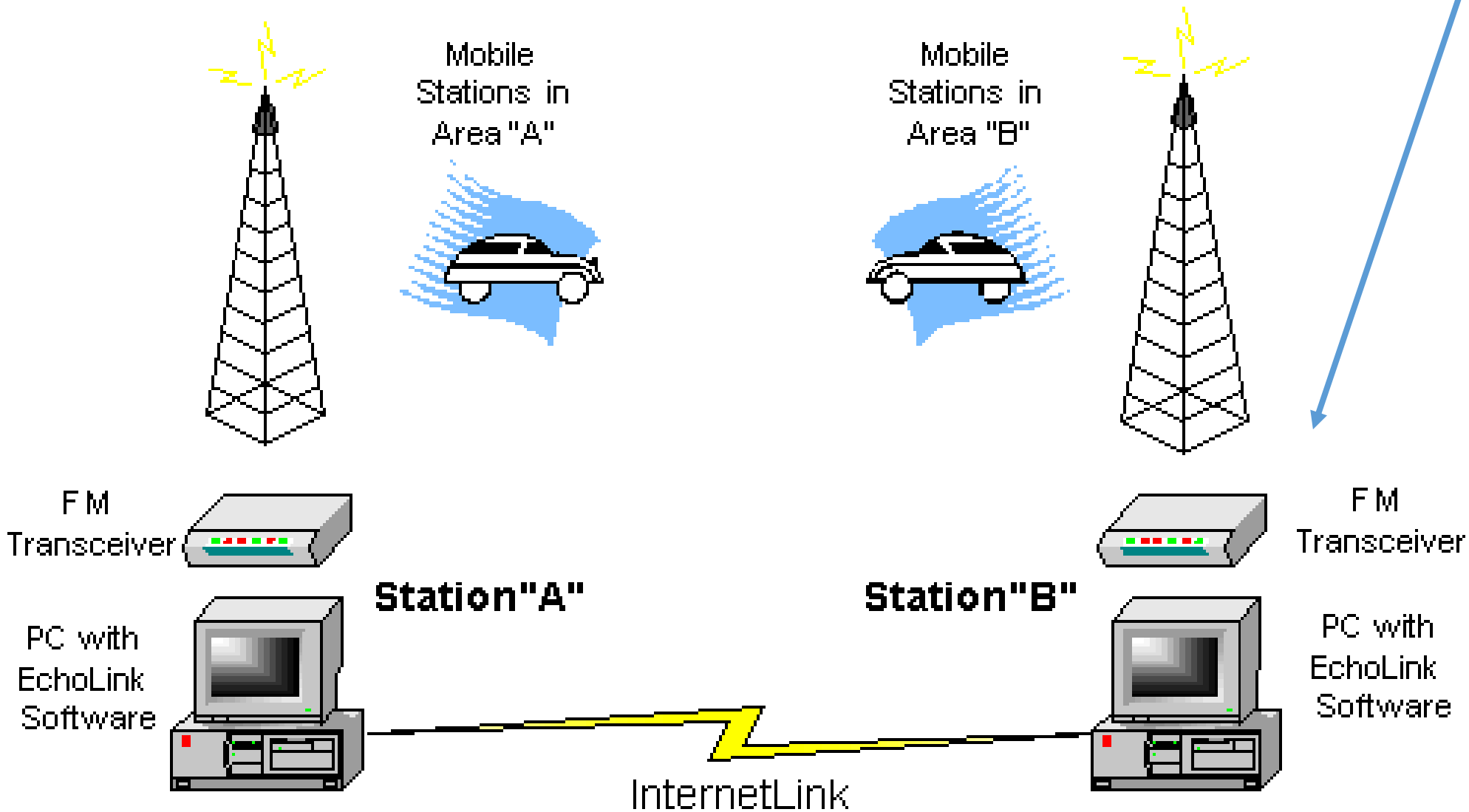
MSU ARC, October 7, 2025 by KJ4W

# What is EchoLink?



- From the EchoLink homepage: “EchoLink<sup>®</sup> software allows licensed Amateur Radio stations to communicate with one another over the Internet, using streaming-audio technology. The program allows worldwide connections to be made between stations, or from computer to station, greatly enhancing Amateur Radio's communications capabilities.”
- <https://echolink.org/> If you don't remember anything else from this presentation, don't worry....this link has all the answers.

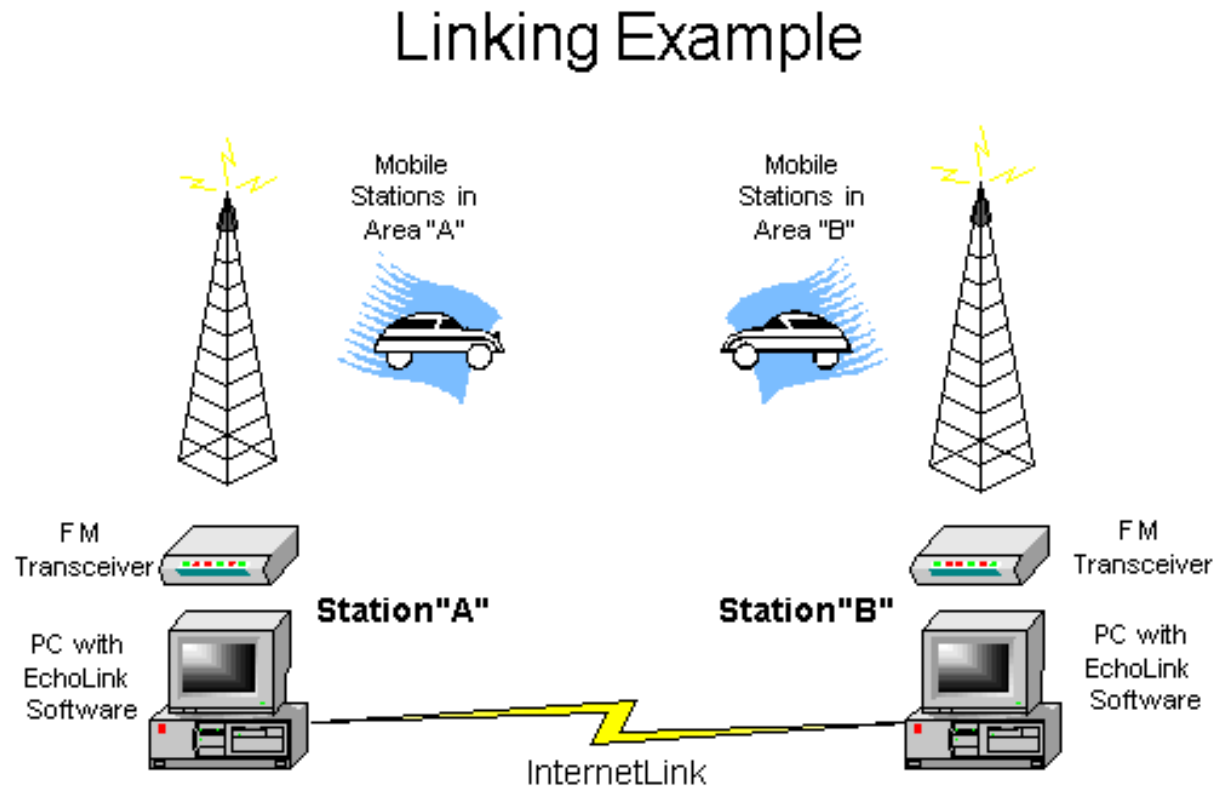
# Linking Example



The radio at either end could be a Repeater station, a Link station, a "Conference", or an individual ham station. Our K4MSU/R 443.800MHz repeater is connected to EchoLink.

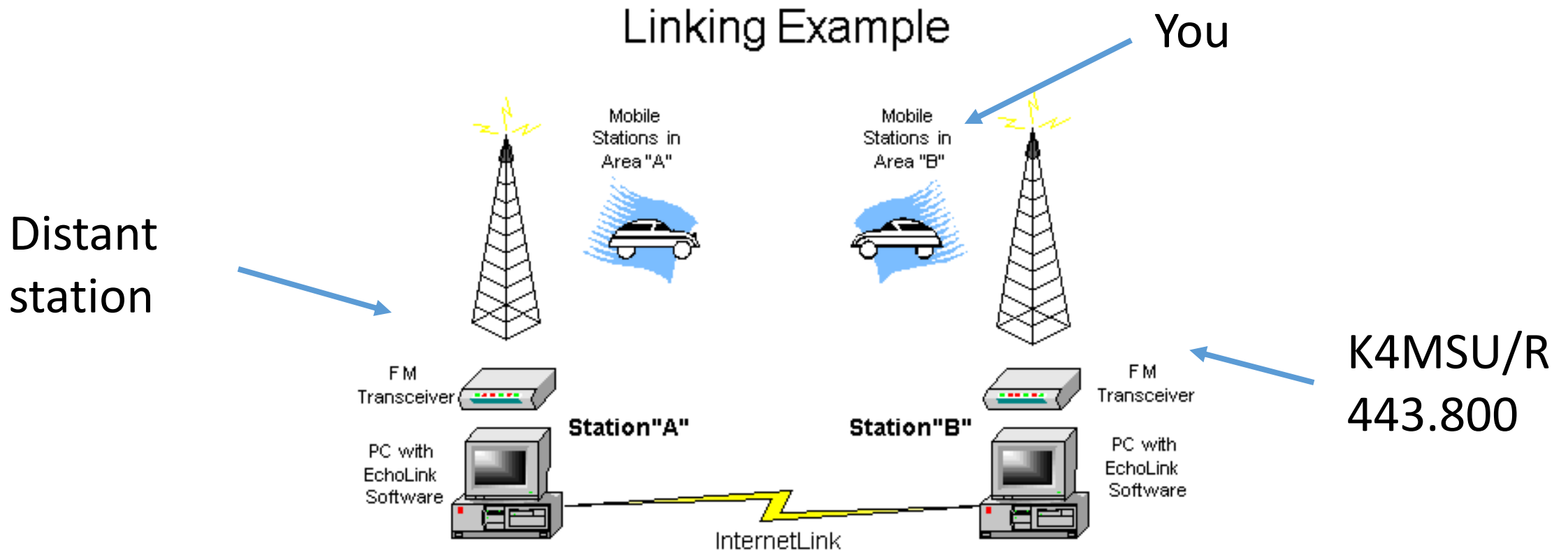
## Other configurations are common:

- The user at either end could be a handheld or base station, communicating through a Repeater, Link, Conference, or Home station as shown
- Either end could be a home computer, connected through EchoLink directly
- One end could be a smartphone app



The simplest way you might use EchoLink is just to answer someone who has connected to our 443.800MHz repeater via EchoLink

- You just talk with them using your radio, like you would to any other radio
- The other station controls the connection
- We get frequent “visitors” who connect



You can also initiate a contact via EchoLink from your radio.

- First, connect to a repeater or link which has EchoLink installed on it.
- If you know the “Node Number” you want, just enter it on your DTMF TTP.
- If you don’t, you can find Node Numbers for given callsigns on the web page.
- K4MSU’s Node Number is **207370**; check in to K4MSU remotely!
- There’s also a way to enter a callsign, but it’s awkward using a TTP.
- Or you can “call CQ” by entering **00** [anyone], **01** [Repeaters or Links only], etc.
- If and when someone answers, carry on a normal QSO; when finished, disconnect with **#**.
- Remember to ID before and after the contact, state “using EchoLink”.
- A good practice before connecting is to check the system Status with **08**.
- Another feature is the Test Server, **9999** . You can check your radio’s audio!
- A list of DTMF functions is available from KJ4W, or in the Help files.

## Next level: install EchoLink on your own computer!

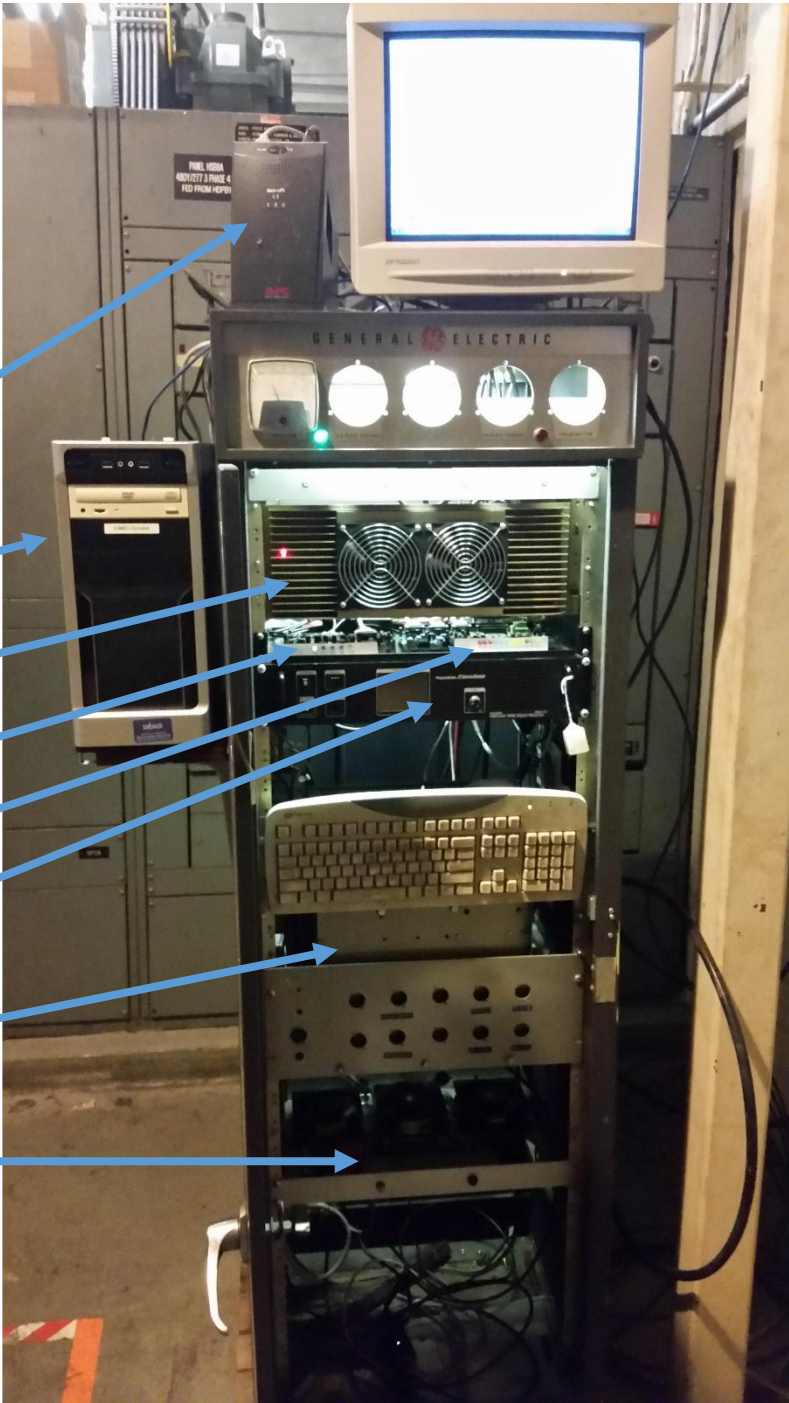
1. Download the software from the EchoLink.org website.
2. As part of the installation process, you must Register your callsign and have it Validated by EchoLink. Then you will be issued a Node Number.
3. Go through the setup process for the software.
4. Test your installation by going to the Test Server. Getting the audio levels set right is important to do. The Space Bar is your PTT button.
5. You will likely have to “Open” some Router Ports or modify Firewall settings. There is a troubleshooting procedure in the Help Files if this is needed.
6. Closed Router Ports can be a problem when traveling. A work-around is to use a “Proxy Server”. The Help Files cover this too.
7. Instead of a computer, you can use an App on either iPhone or Android. But you must first install the program on a computer, be Validated, and be issued a Node Number.

# EchoLink on a Repeater is in "SYSOP" mode

K4MSU/R 443.800MHz Repeater, Faculty Hall

- Battery Backup for Computer
- Computer for EchoLink
- Power Amplifier
- EchoLink Interface
- Repeater Controller
- Yaesu Repeater
- 14VDC Power Supply
- Fan Shelf

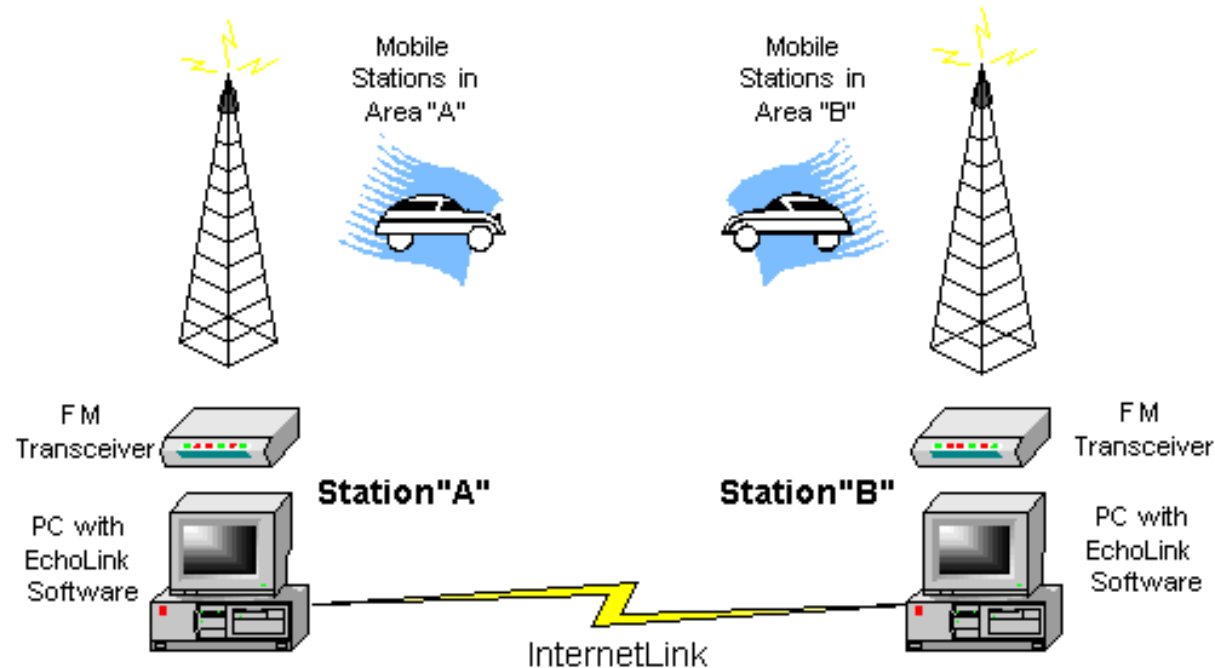
This photo is about 5 years old. The computer has been replaced twice since then! Otherwise the setup is the same.



There are other, similar-but-different Internet-linking (VOIP) programs

- IRLP (Internet **R**adio **L**inking **P**roject) – only allows radios (usually repeaters)
- eQSO – computers mostly, or radios via a Gateway; allows texting too
- WIRES (**W**ide-coverage Internet **R**adio **E**nhancement **S**ystem; by Yaesu). Our W4GZ/R 147.240MHz repeater in Hamlin is connected to WIRES.
- DSTAR and DMR digital systems have their own networking methods and “TalkGroups”.

### Linking Example



From the February 2003 *QST* article mentioned on the EchoLink website:

**But Is It Ham Radio?** The answer to that question depends on how you define “ham radio,” and there is no shortage of opinions. Some radio purists reject amateur VoIP completely. They feel that hams shouldn’t incorporate the Internet into any aspect of Amateur Radio communication. It must be all RF or nothing. Others take a more expansive view and only draw the line at VoIP communication that lacks radios at both ends of the Internet path. One thing that can probably be said with certainty is that amateur VoIP is here to stay. Amateurs young and old are embracing the technology, and the growth of affordable broadband Internet access is acting as a catalyst. To invoke the shopworn cliché, amateur VoIP isn’t everyone’s cup of tea. It is just one of the dozens of interests that comprise Amateur Radio. If amateur VoIP offends your radio sensibilities, avoid it. If not, a new operating experience awaits.

# A major use for MSUARC members: checking into the Monday night 2m Net remotely!

- Ordinarily, only our 443.800MHz repeater has EchoLink. But a scheduler program connects it from the 70cm repeater to the 2m repeater on Monday night for the Net.
- You can remote connect by (1) using a laptop computer with the EchoLink program, (2) using a smartphone app, or (3) by radio into a local host station.
- Local host stations can be found from the EchoLink home page, under “Link Status”.

<https://echolink.org/>

<https://echolink.org/links.jsp>

- Then connect to K4MSU-R, Node 207370.
- Happy remote connecting!

