EchoLink Connection

By N7LWD, Larry Dayhuff, 7/11/2010

What is EchoLink

(From Wikipedia, the free encyclopedia)

EchoLink is a computer based Amateur Radio system that allows radio amateurs to communicate with one another using Voice over IP (VoIP) technology on the Internet for at least part of the path between them. It was designed by Jonathan Taylor, a radio amateur with call sign K1RFD.

The system allows reliable worldwide connections to be made between radio amateurs, greatly enhancing Amateur Radio's communications capabilities. In essence it is the same as other VoIP applications (such as Skype), but with the unique addition of the ability to link to an amateur radio station's transceiver.

Before using the system it is necessary for a prospective user's call sign to be validated. The EchoLink system requires that each new user provide positive proof of license and identity before his or her call sign is added to the list of validated users.

The software is written to run on 32-bit and 64-bit versions of Microsoft Windows. Another edition of the software runs on Apple mobile devices (iPhone, iPod touch, and iPad), and is available from the Apple App Store.

Uses

Radio amateurs using the EchoLink software can operate it in one of two modes:

- **Single User Mode.** If they have an Internet-connected computer, they can use the computer's microphone and speakers to connect to (or through - see below) other EchoLink-enabled computers over the Internet and talk to the amateur at the other end.
- **Sysop Mode.** This entails connecting their own VHF or UHF transceiver to their Internet-connected PC with a specially-designed hardware interface. Doing this enables another radio amateur with their own transceiver, who is within radio range of this station, to communicate with (or through) any other EchoLink-equipped station anywhere in the world. This is the unique feature of EchoLink.

Radio amateurs without the EchoLink software or a computer connected to the Internet can take advantage of the EchoLink network if they are within radio range of a sysop mode EchoLink station. It is also possible to link a sysop mode EchoLink station to a local repeater, further enhancing the communication possibilities.

FMCA ARC EchoLink Conference Node: *FMCA-ARC*

The FMCA Amateur Radio Chapter currently meets on EchoLink every Tuesday night at 9:00pm ET. Jay, W4PVN, was the original FMCA ARC EchoLink project leader and conference node operator (similar to a Net Control Operator on HF) when our EchoLink conferences started. Since one person couldn't be available for conference node control every single week, we had to add more conference node operators. Also, since individual conference node operators had different configurations for their conference node, each conference node would operate differently. As more members wanted to participate in our weekly FMCA ARC EchoLink Net, we had to start scheduling EchoLink Conference Node Operators. The active EchoLink Conference Node had to be disseminated prior to EchoLink Net operations so that all operators could connect to the proper Conference Node. For enhanced operation of the FMCA ARC Echolink Net, an EchoLink Conference Node server was established. This server would be on 16 hours per day. The call sign of this server would be *FMCA-ARC* and would be open to all EchoLink amateur radio operators. This server would be able to handle up to 32 connections before the system starts to degrade. Our past FMCA ARC EchoLink Net hadn't seen over 10 participants so we had room for more member and guest connections.

Groups, other than FMCA ARC, should be able to use the server any time we are not having our weekly FMCA ARC EchoLink Net. This would be just like going to a specific frequency on HF but with a 50 over S9 signal quality. For now, the server is totally open to any amateur radio operator. However, if we start to see abusive activity, we have the option to enable security rules so that only approved operators would be able to use the server. Let's hope it doesn't come to that because that is just more unnecessary work for everyone. We just want to visit and have fun.

Getting Connected

To get started, go to the Official EchoLink Web site www.echolink.org for the best and most complete information of Requirements, Software Download, Validation, Interfaces, Help Files, and much more.

Getting Help

If the official EchoLink web site and/or Google searching doesn't help you get on EchoLink, I will be willing to help those who want it upon request. Just send me an Email at webmaster@fmcaarc.com requesting the help desired. I have several methods for supplying help: Telephone, Email, File download/upload, TeamViewer, and of course RF.

Hope to hear you on EchoLink soon!

Appendix: EchoLink-compatible software for other operating systems

Open Source Software (OSS) packages that are largely compatible with EchoLink are available for Macintosh (EchoMac) and Linux (echoLinux or SvxLink/Qtel), but at the present time (July 2010) they have limited features compared to the Windows version, at least when comparing the desktop applications. In February, 2010 a free version of EchoLink was released for the Apple iPhone on the App Store.

If only the sysop mode is required, the SvxLink Server for Linux is a good alternative. It has features that go beyond the original software and its openness makes it quite easy to extend with new functionality.

EchoIRLP is a software add on for IRLP which enables an IRLP node to operate as a sysop mode EchoLink station.

Note: the *EchoLink* software, which is designed to run on Microsoft Windows, has also been known to work on several Linux builds as well if loaded through Wine. This route may be the best route to go for the beginner Linux user as many of the Linux applications require some expertise to install.