In this final chapter on IRLP we will look at how the procedure actually works and what are the mechanics behind it as well as some additional comments on the use of IRLP.

You may recall in the last article I spoke about Nodes and Reflectors. Nodes allow connection from one person to another via their local Node. Reflectors allow connection from your Node to many Nodes. IRLP etiquette asks that if you are talking to a person for a period of time that you use their local Node and not the Reflector. This frees up the Reflector for others to use and it also reduces the workload on the computers handling the communication.
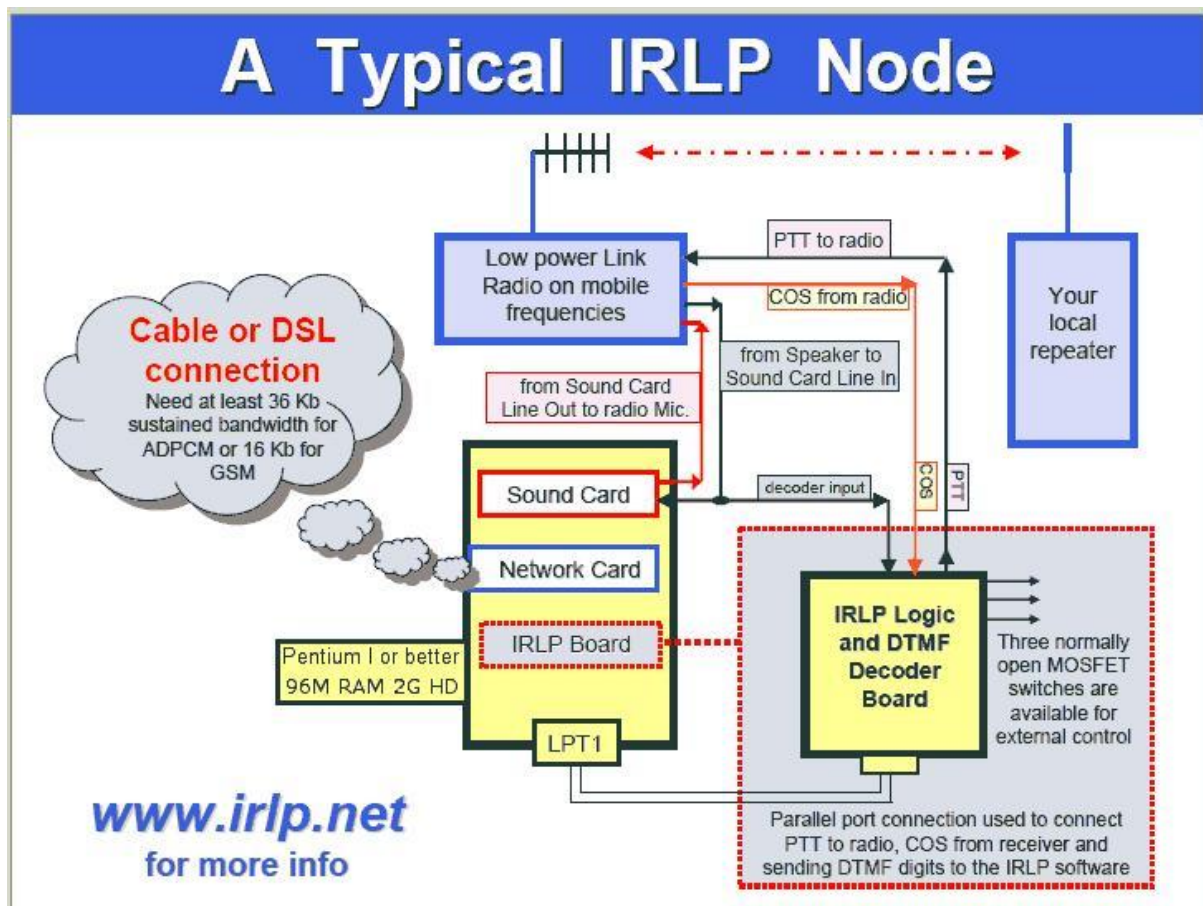
Just as an aside issue there is a IRLP Net held each day out of the USA. Anybody is welcome to call in. It is very well managed as they ask for calls from different areas of the USA, then Canada and South America, then Europe, then Asia, then Australia and New Zealand finishing with any other areas not covered. You need plenty of time because the whole thing takes about three hours, and it means that you are connected to IRLP for that length of time. I joined in once and I was well received.

Another item of if interest in regard to IRLP is Google Earth. By downloading a link to Google Earth from the IRLP web site you can see once you load Google Earth what Nodes are connected at given time. It also shows you what Nodes are connected to what Reflectors. It updates every five minutes so as you see who is connected. It does not give the call sign of who is connected, just the Node number.

In simple terms the following explains the process. The system starts by receiving audio into a radio that has been modified to interface with a computer (using the IRLP interface board). When a signal is received by the radio, the Carrier Operated Squelch (COS) state changes. This change is then sent to the interface board, which tells the computer that the COS line is active. This change is picked up by the IRLP software and the computer starts sending a packet stream containing the audio from the receiver.

This audio is picked up by the connected computer(s) and played out the sound card. The IRLP software detects the incoming packets and sends a PTT signal to the link radio. Hence the audio from one end is heard on the other.

The following diagram explains the processes in a graphical format.

A Typical IRLP Node

I hope this illustrate how IRLP operates. I enjoy using it and have made several contacts overseas. I regularly contact a Node in London and chat to somebody over there who has now become a friend. I could not do this on HF whenever I wanted to, but I can using IRLP.

If you wish to find out more information about IRLP there are two good web sites to use. The first one is:www.irlp.net. This site gives you all the information you need to use IRLP. If you are into more of the technical aspects of IRLP or require some inside knowledge on troubleshooting, then I suggest you look at http://garymcduffie.com/irlp/. The Groups.io group for IRLP web site is also very helpful when there is a problem to be solved.

That's it for this series of articles. I hope you have found them useful.

Update 6th February, 2022

Nodes are now much easier to set up. You need a dedicated radio and a node now built using a Raspberry Pi. Originally you needed to insert a IRLP Card into you computer but all that has changed. It is all now managed via Raspberry Pi. It removes the necessity of a dedicated Linux PC.