IRLP Users Upgrade Guide

While we integrated an IRLP gateway into Hamvoip several years ago to allow both entities to connect the politics of IRLP and the closed system they run means that this connectivity has been severely constrained or terminated. We regret that but welcome IRLP users to the Hamvoip community. Allstar offers everything that IRLP does and so much more.

We want IRLP users to know just how easy it is to convert or bring up a new Hamvoip system. Both IRLP and Hamvoip use only four signals to and from your radio so interfacing one to the other would only involve changing the connections on one end of your radio cable.

Assuming you are currently using a Pi 2,3, or 4 (Not an original Pi with large SD card) the same Pi and power supply you are using for IRLP can be used for Hamvoip. All you need to do is burn a new SD card with firmware downloaded from the hamvoip.org site. The only other item you will need is a USB to radio adapter or as we call it a FOB. Your choices are a commercial product (see commercial sources under howto's at hamvoip.org) or the modification of an audio FOB shown in the hamvoip.org howto section. Choosing a Chinese import FOB and modifying it the total cost of conversion would be minimal, probably under $10. Commercial FOB's are in the $35-80 area with any one able to do the job. Unfortunately your old IRLP interface board can be thrown in your junk box for whatever parts it offers for another project or simply trashed. Selling it or giving it to another users is risky as it is not known if the IRLP hierarchy would authorize its further use. Sometimes you just have to give up old things!

Checklist for switching to Hamvoip from Pi IRLP

Visit allstarlink.org, register, and apply for a node number. Once the number is assigned record the node number and node password from the site.

Download the firmware from the hamvoip.org site. If you are using Windows run the exe to extract the .img file (about 4GB) burn the img file to a 16Mb micro SD card (about $5 at Amazon for the card) using win32diskimager and insert the newly burned card into your Pi in place of the IRLP card.

Modify or make a new cable from your radio to the FOB. The radio end will be the same. There are four signals and a ground. Audio in/out, COS, PTT, and ground. Wire these to the proper connections on the FOB.

Connect the FOB USB to the Pi USB, connect the radio to the FOB.

Boot up and ssh into the Pi – user and PW is initially root. Follow the instructions to setup your Hamvoip node. Part of the setup involves setting levels to and from the radio and the polarity of the COS signal. See the setup howto at hamvoip.org for more information. When you are done you should have a functional node.

If you are using a pre Pi 2 or old PC IRLP system you will need to purchase a Pi (about $35) and power supply (About $8). The Pi can be 2, 3, or 4 but any newly purchased Pi's will probably be the Pi 4. Note the Pi 4 requires a USBC power adapter plug. Only two cables, one from the Pi to the FOB and one from the FOB to the radio are required.

We are here to help! If you have any problems join our forum (link at hamvoip.org) where any of your questions will be answered.

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