

How to use iaxrpt with Allstar on the hamvoip releases

This document has been expanded to include the Android iaxrpt version now called DV SWITCH MOBILE as well as the windows version. For the Android version instructions scroll down.

Windows iaxrpt Version

iaxrpt is a Windows based client that allows a full duplex voice connection to Allstar. It allows voice communications with your node and any node it is connected to as well as the ability to send commands. Setup is rather simple and in most cases it should only take a few minutes to complete.

You can download the program for windows or wine in linux at:

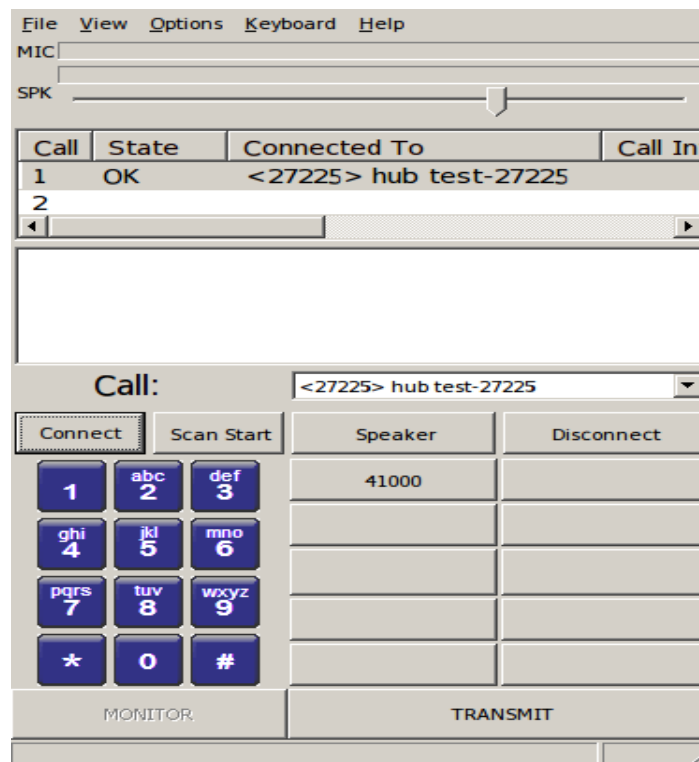
https://hamvoip.org/downloads/setup_iaxrpt_xipar_010146.exe

The Android app can be found at:

<https://play.google.com/store/apps/details?id=org.dvswitch&hl=en>

iaxrpt runs in all versions of Windows and also works well in wine under Linux. There is also an Android version available. Anyplace you can run (or could run) the web transceiver you can run iaxrpt. The difference is iaxrpt is a secure connect to a node under your control or to a node for which you have the iaxrpt password.

The iaxrpt application looks like this -



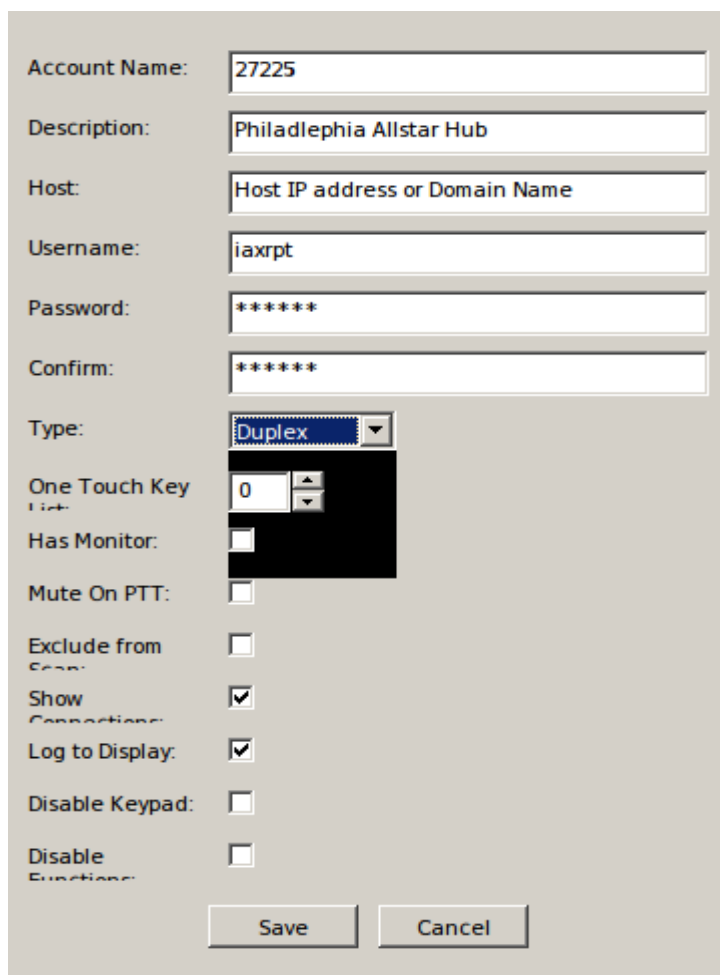
This shows the DTMF keys in the lower left. The example is currently in the connected state to the node shown.

The OK shows in the upper screen. To the right of the DTMF pad are special function keys that can be defined. Iaxrpt allows many multiple connections to be opened simultaneously that you can switch between easily.

To setup account select the OPTIONS tab at the top.

Under the OPTIONS drop down select Accounts, then Add.

You will see the following account setup screen -



Account Name: 27225

Description: Philadelphia Allstar Hub

Host: Host IP address or Domain Name

Username: iaxrpt

Password: *****

Confirm: *****

Type: Duplex

One Touch Key: 0

Has Monitor: ☐

Mute On PTT: ☐

Exclude from Scan: ☐

Show Connections: ☒

Log to Display: ☒

Disable Keypad: ☐

Disable Functions: ☐

Save Cancel

The Account name is the Allstar node number you want to connect to. It must be located on the server you are defining here. 42449

Description – Optional, anything you want to describe this account. W5AW Repeater

Host - the local IP address of the server your node is on. If outside the network then this would be the domain name or public IP. Note that if the public IP is not static it could change. Also if you server is on a different iax port than the default 4569 you MUST specify the port in this field. The port is entered with a semicolon after the IP address - 42449.ip.hamviop.org:4569

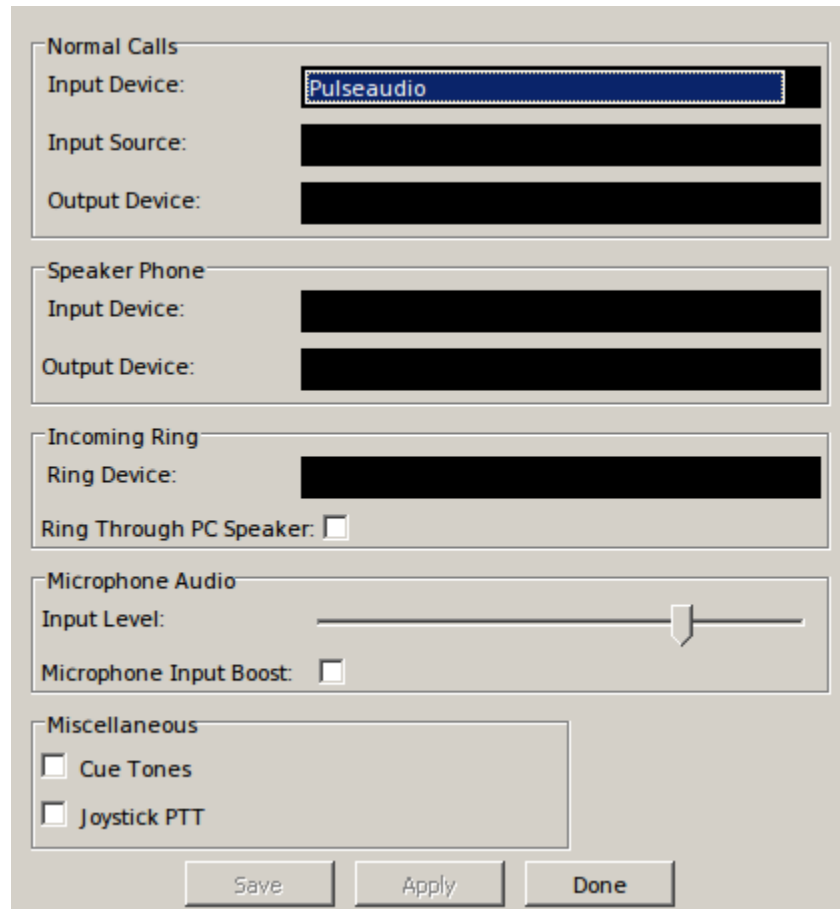
Username - Your Callsign

Password - radio

Type – duplex

Save your settings and exit back to the opening window.

Now select OPTIONS then Devices. Here you will setup you audio settings.



The settings for the audio input and output device use Microsoft Sound Mapper for best results. Input source is Microphone.

The microphone slider adjust mic input level and if needed you can select the boost check box.

In the account pull-down to the right of Call: select the node you want to connect to and then click Connect. If all is well you should get and OK in the status line at the top.

Device values and levels will be different depending on the system you are using and system settings may effect this also. Once you have it set it should work equally for all accounts.

This completes the necessary setup steps. You can customize further if desired. To connect to a node select the one you want to connect to in the drop down window to the right of the Call: label and select the connect box. If all goes well you should see OK in the status window. The DTMF buttons send commands to the node just like you were on a radio connected to it. You only need to select the transmit button to talk.

Some notes about iaxrpt

Be careful when using iaxrpt. You can easily leave the node in Transmit (PTT). There is a safety feature that if you click off of the iaxrpt window it will go out of transmit. This can be annoying if you are trying to look at other things on the screen.

Only one iaxrpt instance can be opened at a time under Windows but you can open multiple nodes in an instance..

Commands to your node are entered at the DTMF keyboard and are executed a few seconds after input stops. You must hit the characters in a reasonable time or it will timeout. There is no setting for the timeout period.

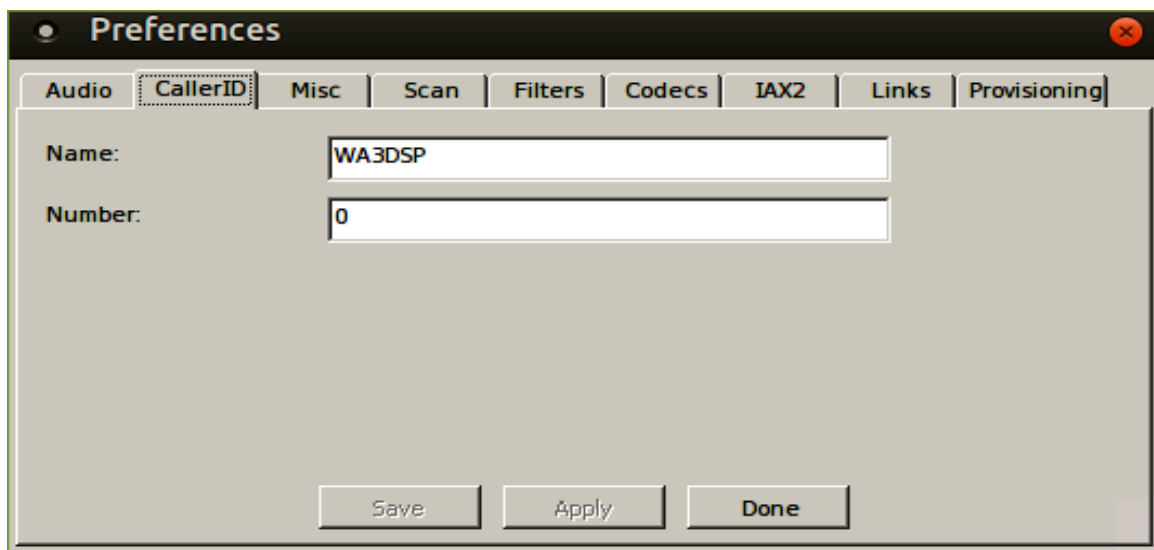
You must set your audio input and output device and levels under Options, Devices

iaxrpt is a nice way to monitor your nodes and allows transmit when you don't have a radio handy but it is much preferred to use a radio when available. It is also a good way to check and set levels as the level meter is accurate. Signals should never peak out to full scale. Try to set peaks to no more than about 95% of full scale.

IMPORTANT - If you have your servers iax port set to other than the default 4569 add the port number after the IP address or domain in the host entry block under accounts. If your IP address was 192.168.1.20 and your port was 4568 you would enter:

192.168.1.20:4568 or my.domain.com:4568

Using the Windows version of iaxrpt you can have multiple channels opened simultaneously. Under Options, Preferences, Misc The number of displayed calls can be increased. When you click on a call number on the display you can connect a node and monitor or scan through them. This is an often overlooked feature of iaxrpt.



Setting CallerID

Under Options/Preferences/CallerID users should put their call in the name field and a mandatory 0 (ZERO not 'o') in the number field. The zero is the default setting in most cases. This will ensure that Allstar recognizes the connection as being from iaxrpt and that your call or identifier is used when displaying connections such as in Supermon.

Android iaxrpt Version now called DV SWITCH MOBILE

The Android version of iaxrpt can be downloaded from the apps store on your phone or pad. Search for iaxrpt or dvswitch or use the link at the beginning of this document.

The following page shows the accounts setup page on the Android iaxrpt app using the above example.

Change nodes, names and passwords to suit your application.

The screenshot displays the 'Android IAXRPT' application interface on a mobile device. The status bar at the top shows icons for social media, signal strength, and battery level (38%) at 10:47 PM. The app title 'Android IAXRPT' is at the top of the form. Below it, the 'Protocol' is set to 'IAX2'. The 'Hostname' field contains 'myipaddress.url.com'. The 'Port' field is '4569'. The 'Username' field is 'joe-bobs-account'. The 'Password' field is masked with dots. The 'CallerID' field is 'KB4FXC'. The 'Caller Number' field is '1234567890'. The 'Node' field is '1998'. At the bottom, there are 'Save' and 'Cancel' buttons.

Field	Value
Protocol	IAX2
Hostname	myipaddress.url.com
Port	4569
Username	joe-bobs-account
Password
CallerID	KB4FXC
Caller Number	1234567890
Node	1998

The CallerID is usually set to your Call for remote ID and the Caller Number should be set to 0. This was tested on a Samsung Android tablet. Not all android devices work the same.

This shows the accounts entry page. A prior page allowed you to select from 10 entries which start out empty. Selecting an entry opens this page. Enter the IP address or domain name of the host (Pi server) you wish to connect to. Then on the port line the assigned bindport for that server. The default iax port is 4569 but if you have multiple servers behind a public IP address you would probably have assigned different ports to each. Use the port associated with the server you wish to connect to.

Your username is assigned in the context shown above that is inserted in iax.conf. In this case it is joe-bobs-account. You can change this if you wish but the name entered here and on the accounts page must match. The password must match the secret= in the context. Enter a password in the iax.conf context and the matching password here. Finally enter the node number on the server you wish to connect to. This must match one of the entries (exten=) in the context entered in the extensions.conf file as shown above.

Once all is entered press the save icon. If you entered something wrong you can always come back and edit it later. At this point you may have to press your back to last screen key to get back to the main iaxrpt screen which is shown below.



This is the main window for the Android iaxrpt app. After you have setup an account the node number for that account will show up in the white window above the send button. Select send to connect to this node. Once connected the send button will dim and the hangup button will light. Use the hangup button if you wish to disconnect from the node. When connected the PTT button at the bottom of the screen is used to key your node. When tapped it will go red and you will be transmitting to the node. Tapping it again will unkey and it will return to white. If you wish to send a command to the node enter it on the keypad and press send. As an example *81 would tell you the current time. Use the BS (back space) to the right to delete info in the send window.

NOTES

Be sure to disconnect when you are done using the app to avoid hanging up a channel. If you want to access your node locally and also remotely you may need to have two account entries one with the local IP address and the other with your public IP address or more likely a domain name. Use the asterisk client to troubleshoot watching the log messages there as you attempt a connect.

This app is NOT a hamvoip creation and we hold no responsibility for its proper operation nor do we have any control over it. We have tested it and it appears to work well on Android 7 as configured above and it probably works on most older versions also but your mileage may vary.