

## Setting up Zoiper in Allstar

Zoiper is an app for Android and Iphone as well as the computer. In the case of an Allstar node it can be used to communicate via your cell phone data connection while you're mobile or you can use it around the house in place of an HT if your node doesn't have a USB interface with a radio.

In my case, I have it both ways. I use it mobile because it connects to my car stereo via the bluetooth and I use it around the house with just the WIFI connection. Keep in mind that if you use it mobile, you're using data and if your plan isn't unlimited you should keep an eye on the usage. You're also going to experience packet drops if you have a weak signal. In my area, 3G and 4G are prevalent and we have good coverage, so I use the app on the phone in my car via Bluetooth and I use the mute button on the steering wheel as a PTT button. I can leave the phone sitting on the seat, and not have it in my hand to transmit.

The connection to your node is full duplex, you can talk and listen at the same time just like a phone call! Keep in mind that if you don't mute it via the mute button in the app or the mute button on your steering wheel, when you're finished talking it will pick up all the surrounding chatter and tie up your node and everyone connected to your Allstar node will hear it!

I have two Allstar nodes presently, one that was set up on a BeagleBone Black with an ARS Repeaters USB interface to a Baofeng HT. I use Zoiper to connect to that node when I'm out of range of the HT. I also have another node that is simply an old Dell Laptop with The ACID OS downloaded from the Allstar site ( <http://allstarlink.org>). There is no USB interface and it serves as a hub that other nodes can connect with and its also my backup in case the first node fails. The second node was established because I had the old laptop laying around and wanted to try it. I have it configured it to accept connections from laxrpt (good instructions for that here) and Zoiper. This is a good way to start with Allstar because its easy to find old laptops and most people can get their hands on a computer, old cell phone, and even an Ipod touch or an Andriod tablet to use with Zoiper. The device needs connection to Wifi at a minimum, I have a friend who uses an old Iphone 4 from a junk bin that has a cracked screen. Theres no cell phone plan on it so he uses Zoiper to talk to his node through Wifi.

Once your node has been established the setup is pretty easy and straightforward.

Log into your node directly or use Putty or WinSCP and navigate to /etc/asterisk to find the configuration files. There are only two files to edit. iax.conf and extensions.conf

Open iax.conf and scroll to the bottom, in my iax.conf file I added the lines listed below just above the very bottom of the file, above the line that says: #includeifexists custom/iax.conf

Edit the lines below and paste these lines above the line at the bottom of the file. There are three things to change, The username can be anything, I used myphone. The secret needs to be a password you will enter in Zoiper and the Caller ID should be your Call Sign.

```
[myphone] ; Zoiper Setup
username=myphone ; Change to your username
type=friend
context=myphone
host=dynamic
auth=md5
secret=xxxxx ; Change to your desired password
disallow=all
allow=ulaw
allow=g726aal2
allow=gsm
codecpriority=host
transfer=no
callerid="CallSign" ; Change to the ID you would like to show up.
```

Save iax.conf and navigate to **extensions.conf** In that file you paste the following text after you **edit it with your node number**. Once again, paste it at the bottom just above the line that says:

```
#includeifexists custom/extensions.conf
```

```
[myphone]
;Settings for Zoiper
exten => 41764,1,answer() ;Change the node number on all these lines to your own node
exten => 41764,n,Playback(rpt/node)
exten => 41764,n,Playback(digits/4) ; change the playback digits to your node as well
exten => 41764,n,Playback(digits/1)
exten => 41764,n,Playback(digits/7)
exten => 41764,n,Playback(digits/6)
exten => 41764,n,Playback(digits/4)
exten => 41764,n,Playback(rpt/connected)
exten => 41764,n,rpt(41764|Pv) ; Change both numbers here to your node
```

Save the file and reboot the node. Then break out the portable device and download the Zoiper App.

On the portable device, open Zoiper and click on the config settings, it may automatically prompt you to enter an account, if so see the fill in the blanks section below.

Click Accounts

Click "Yes" you already have an account

Click Manual Configuration

Click IAX

Fill in the blanks!

**Account name**=whatever you want to call it. I chose the node number for mine

**Description**=whatever you want, Ex. My Zoiper account

**Host**=the IP address of your node plus the port number, this can be tricky. If you just want to use it in your house then enter the local ip address of the node, generally 192.168.X.X with the port number, the port number is generally 4569 unless you have multiple nodes. Ex 192.168.1.10:4569

If you want to use it from the outside world then you need to plug in the public IP of your router. Ex. 64.64.64.64:4569 To run it this way you need to forward port 4569 from the outside world to your node, different routers do it different ways so I'll leave that to you to figure out.

**password**=your secret password that you set in iax.conf

The rest of the options are optional, You can fill in caller ID with your call sign, but its not needed on my Android device, Apple Devices appear to want it.

Click Save at the bottom of the screen and it should bring you back to the accounts screen, if things are right you will see the account registering and then after about 30 seconds it should have a green check mark.If the registration fails then check you settings in the account.

From there, on an Andriod device click the back button and that will bring you to the config screen. At the top you'll see Dialer, click that and you should see a number pad with a black window near the top that says "whatever you account name is" is ready

If that appears in green then simply dial your node number and it should tell you that you're connected.

Click the mute button to stop transmitting and that will let the carrier drop so others can use it.  
I also click speaker at the lower right to use the phone as a speaker phone.

Click END CALL at the bottom to hang up.

**Bernie, W1BFC**