

<http://lists.hamvoip.org/pipermail/arm-allstar/>

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If you're needing to completely painlessly setup a VPN, and don't mind having a 3rd party involved, at this point I recommend using zerotier. I built a hamvoip package for zerotier a few weeks ago. I had never tried zerotier before then, but, I have to say, using this solution is completely painless....At least from my testing, thus far.

.....Note that a very simple installation is described, below. You need at least 2 devices on the network to try this out.

Setup is very, very simple. Here are steps to get setup on a HamVoIP nodes:

- 1) Go to the zerotier website, register and activate an account. The website is here. Use the "Register" link: <https://my.zerotier.com/>
- 2) Login to your new account and click the "Create a network" button. A new network with an arbitrary name will be created.
- 3) Click the link to enter the setup page for your new network. At the top of the webpage, you'll notice a 16 character (8 hexadecimal digits) network ID. Something like "1c33c1ced0e4c478"Make a note of this ID.

1c33c1ced0e4c478 ;this is the secure ID for zerotier user to enter for connecting

- 4) Now install the software on the HamVoIP node from the bash shell prompt: `putty menu 9`

```
pacman -Sy zerotier-one
```

```
proceed with installation y
```

- 5) Once the package is installed, run the zerotier daemon, which goes immediately into the background:

```
zerotier-one -U -d
```

- 6) From the HamVoIP node, join your new VPN network using the network ID noted above....For EXAMPLE:

```
zerotier-cli join 1c33c1ced0e4c478
```

NOTE that "1c33c1ced0e4c478" is an example...Use the network ID you got from the zerotier webpage, using your account.

7) The final step is to go back to the zerotier webpage and scroll down to the "Members" section and click the checkbox at the left to authorize the HamVoIP device, allowing it to join the network.

This same line there is a icon at the end looks like an eye with a flag, if you select it, you will remove the remote node connection, you can add it back in just below in the manually add member box when needed.

I remove them until I need them, the nodes still boot up and are trying to connect but without a connection the node is more secure.

Make a note of the remote address before you remove it. Wa2kjc

8) To launch your VPN when the remote node boots, just edit the /etc/rc.local file and place the command: "zerotier-one -U -d" (without the quotes)

just above the exit statement at the bottom of the file. It automatically knows what networks to join.

Here are some commands.

putty in and menu 9

```
zerotier-one -U -d ;starts vpn but its allready in the rc.local
```

```
sudo systemctl stop zerotier-one
```

```
zerotier-cli listnetworks
```

```
zerotier-cli join 1c33c1ced0e4c478
```

```
zerotier-cli leave 1c33c1ced0e4c478
```

9) Now lets download the app for connecting your computer to the VPN network. Go to zerotier.com if your not all ready there and Click on download, I downloaded the windows app for my windows 10 laptop.

Install, open the ZeroTier Control panel and down in the [#####] box type in your secure ID created above and hit join network.

Anytime you want to disconnect just click on the ZeroTier app and highlight your connection and you have disconnect as a choice. Also you can right mouse on the app and Quit ZeroTier UI to stop it from running on your laptop.

10) Now lets connect with putty with the zerotier up and running and remote node is connected and your laptop is connected. The IP address you want to connect to in the putty window is the address shown in your online zerotier account under managed IPs. It really doesn't matter what IP is assigned onsite for the remote raspberry Pi hamvoip, your are connecting to the VPN.