Tunnelling

In order to setup a tunnel connection between two AREDN nodes, one needs to act as the server, and the other as the client. In this example, VA7FI-HAP-1 is the server and VE7RBE-HAP-1 is the client (and the details are made up):

Server Side

On VA7FI-HAP-1's `Tunnel Server` page:

- **Client**: `VE7RBE-HAP-1` is Robert's node name.
- **Pwd**: Create a unique password for that node.
- **Net**: `172.31.39.164` is automatically assigned by the hAP.
- Some optional contact info can be added.

In addition to this information, VA7FI's public IP address will also need to be given to VE7RBE. To find your public IP address quickly, you can simply search for “what's my ip” in your favourite search engine:

Google	DuckDuckGo
	

Client Side

On VE7RBE-HAP-1's `Tunnel Client` page:

- **Server**: `154.12.201.102` is VA7FI-HAP-1's public IP address
- **Pwd**: is the password created by VA7FI
- **Network**: `172.31.39.164` is the **Net** address automatically generated by VA7FI-HAP-1

More About Public IP Addresses

Most residential internet services are given a single *dynamic* IP address, which means that the address can *change* every few days or so (or when the router power cycles). This means that when a server node suddenly gets a new public IP address, the client node can't find it anymore.

One solution is to use a Dynamic_DNS service like No-IP. These services query your *dynamic* IP address, and translate it into a *static* hostname. It's that hostname that you then give the AREDN client (instead of your public IP address).

However, there's an extra step required for the No-IP service to query your dynamic IP address. This can be done by installing a small program on your computer, but some routers have that option their settings. For example: on my Telus T3200M router, I can enter my No-IP information under:

Advanced Setup → Dynamic DNS

So with this setup, VE7RBE would use `myfancyhostname.ddns.net` instead of `154.12.201.102` as the Server address.

That way, every time Telus gives me a new public IP address, my router will be able to notify No-IP, which will update it so that `myfancyhostname.ddns.net` continues to point to my router, and VE7RBE will continue to see my node.