Mesh Chat

Using Mesh Chat is easy: simply click on a Mesh Chat service and enter your callsign.

At the moment, we have five Mesh Chat instances that sync to each other:

- pi4linux9
- VA7FI-Linux
- VE7AX-2
- VE7TOM-HAP
- VE7TOM-HAP-1

Hosting a Mesh Chat Instance

Mesh Chat can be installed directly on the hAP, but it's not recommended because it uses resources and it offers very little storage for files:

In contrast, a server install (coming up next) frees up resources and offers more space:

Mesh Chat on a Linux Server

Before we get started with the details, let's have a look at the big picture. There's essentially 3 different “names” that we'll have to keep track of:

- The AREDN Node name configured in the `Basic Setup` page. Mine in is `VA7FI-HAP-1`. Yours will be different.
- The Hostname of the linux computer running the service. Mine is `VA7FI-Linux`. Yours will be different.
- The Service name. Here we use `MIMeshChat`. Use the same if you want your instance to sync with that one. This is also called the Mesh Chat “Zone”.

Here's where that information shows up on the `Node Status` page once it's all done and ready:

And in the Mesh Chat app:

In what follows, it'll be important to keep track of where to enter this information so it's configured properly.

Server Install

- Follow the steps in the Prerequisites section of the Linux Server page.

Mesh Chat Install

Following the instructions on Trevorsbench:

- Download and install Mesh Chat:

```
wget https://s3.amazonaws.com/aredn/meshchat_1.02_all.deb
sudo dpkg -i meshchat_1.02_all.deb
```

- Edit the configuration file:

```
sudo pico /usr/lib/cgi-bin/meshchatconfig.pm
```

  and edit the last two lines so that the zone matches the other Mesh Chat instances, and the node is the name of your AREDN node. In my case:

```
our $pi_zone                    = 'MIMeshChat';
our $local_meshchat_node        = 'VA7FI-HAP-1';
```

On LinuxMint there's an issue that needs to be fixed before continuing. Essentially, the current setup uses files in the `/tmp` folder, which the Apache server is not allowed to edit. So the solution was to create that folder somewhere else and set the permissions properly.[1)]

- Create these folders:

```
sudo mkdir /var/www/html/meshchat/tmp/
sudo mkdir /var/www/html/meshchat/tmp/meshchat/
```

- And change the ownership and permissions:

```
sudo chown www-data:www-data -R /var/www/html/meshchat/tmp/
sudo chmod 770 -R /var/www/html/meshchat/tmp/
```

- Edit the config file:

```
sudo pico /usr/lib/cgi-bin/meshchatconfig.pm
```

- And replace every instance of `/tmp/` by `/var/www/html/meshchat/tmp/` (line 2, and 18)

- Restart the services:

```
sudo systemctl daemon-reload
sudo /etc/init.d/apache2 restart
sudo /etc/init.d/meshchatsync restart
```

At this point, you should be able to run Mesh Chat from the computer where it's installed using this address: http://localhost/meshchat/
But it won't be able to talk to your AREDN node yet.

AREDN Configuration

Install the meshchat-api package:

- Download it from here
- From the `Administration` page, click on `Upload Package` Browse... to install it.

From the `Port Forwarding, DHCP, ans Services` page:

1. Setup a DHCP Address Reservation for the Linux computer
2. Advertise the service
3. Forward WAN port 8080 to LAN port 80
4. Don't for get to Save Changes

1)
The `/tmp` issue is discussed here: https://www.arednmesh.org/content/pi-meshchat-error-sending-message