

# 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 first. 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.

## Fresh LinuxMint Install

- Install [LinuxMint Xfce](#) on a cheap laptop.
- Change the Linux hostname. I used VA7FI-Linux:

```
sudo hostnamectl set-hostname VA7FI-Linux
```

## Mesh Chat Install

Following the instructions on [Trevorsbench](#):

- Install the dependencies:

```
sudo aptitude install curl apache2
```

- 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.<sup>1)</sup>

- 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  to install it.

From the Port Forwarding, DHCP, and 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 forget to



<sup>1)</sup>

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