**How to set up mosquitto in the local environment.**

1. Install latest version of mosquitto (2.0 and above).

Steps:

sudo apt-add-repository ppa:mosquitto-dev/mosquitto-ppa

sudo apt-get update

sudo apt-get install mosquitto

sudo apt-get install mosquitto-clients

sudo apt clean

Refer:<http://www.steves-internet-guide.com/install-mosquitto-linux/>

<https://mosquitto.org/download/>

1. Navigate to the installed location **/etc/mosquitto/** (in linux) with root access. To access location with root access use command **sudo nautilus**.

**To enable authentication for mosquitto: [refer “** [**Authentication methods | Eclipse Mosquitto**](https://mosquitto.org/documentation/authentication-methods/) **” for more authentication methods]**

1. Open terminal in the location /etc/mosquitto/.
2. Type command - **mosquitto\_passwd -c pwd admin** to create a user with the name admin and click enter. Note pwd is the password file name.
3. The terminal will ask for password and re enter password.
4. Instead of step 3,4,5 we can also manually create a file with the desired name and add the username and password as in the format

**username : password**

Note that we have to encrypt the password using the command **mosquitto\_passwd -U pwd.** This will encrypt the human readable password to non-readable form.

1. Step 6 is recommended to avoid terminal logging.
2. Add the following to the configuration file mosquitto.config.

[

per\_listener\_settings true

listener 1883

password\_file /etc/mosquitto/pwd

allow\_anonymous false

] note: square bracket not needed, per\_listener\_settings true should be at the top. The password\_file location is upto the user and the location has to be valid.

**Run mosquitto.**

Before running make sure that :

1. All instances are killed if not then use the command **sudo pkill mosquitto.**

Running mosquitto

1. Run command **sudo mosquitto -v -c /etc/mosquitto/mosquitto.conf .** again the location of config is entirely up to the user.

**Testing mosquitto.**

There are 2 users, subscribers and publishers. Because we have implemented authentication, we have to give username and password to test out the same.

The publisher can publish by using the command :

**mosquitto\_pub -t topics -m "hai hello" -u admin -P 12345**. Here “topics” is the topic name , “hai hello” is the message and username and password are admin and 12345 respectively.

Note : -P should be in capital letters.

The subscriber can subscribe to a topic by using the command:

**mosquitto\_sub -t topics -u admin -P 12345**. Here “topics” is the topic name ,username and password are admin and 12345 respectively. Any message sent by the publisher is received by the subscriber as long as the terminal is kept live.

Note : -P should be in capital letters.

Notes:

To get all logs and displayed on the terminal add these to the config file.

log\_type all

log\_dest topic

log\_dest stdout

log\_dest file /var/log/mosquitto/mosquitto.log