



MQTT Installation For Ubuntu And Windows



To install an **MQTT server and broker on Ubuntu.**

For Ubuntu

Step 1: Update Your System

```
sudo apt update
sudo apt-add-repository ppa:mosquitto-dev/mosquitto-ppa
sudo apt upgrade -y
```

Step 2: Install Mosquitto Broker and Clients

```
sudo apt install -y mosquitto mosquitto-clients
```

Step 3: Enable and Start the Mosquitto Service

```
sudo systemctl enable mosquitto
sudo systemctl start mosquitto
```

Check status:

```
systemctl status mosquitto
```

Step 4: Test the MQTT Broker

Open **two terminals**:

Terminal 1: Start a Subscriber

```
mosquitto_sub -h localhost -t test/topic
```

Terminal 2: Publish a Message

```
mosquitto_pub -h localhost -t test/topic -m "Hello from MQTT!"
```



You should see the message in Terminal 1.

Step 5: Secure with Username/Password

1. Create a password file

```
sudo mosquitto_passwd -c /etc/mosquitto/passwd mqttuser
```

2. Edit the Mosquitto config

Open the config file:

```
sudo nano /etc/mosquitto/conf.d/default.conf
```

Add:

```
allow_anonymous false  
password_file /etc/mosquitto/passwd
```

3. Restart Mosquitto

```
sudo systemctl restart mosquitto
```

Step 6: Test with Auth

Subscriber:

```
mosquitto_sub -h localhost -t test/topic -u mqttuser -P yourpassword
```

Publisher:

```
mosquitto_pub -h localhost -t test/topic -m "Hello secured MQTT" -u mqttuser -P  
yourpassword
```



For Windows-

Step 1: Download Mosquitto for Windows

Go to the official download page:

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

- Scroll to the **Windows** section.
 - Download the **installer (.exe)** for your architecture (most likely **Windows x64 installer**).
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Step 2: Install Mosquitto

1. Run the .exe installer.
2. **Accept the license** and follow the setup prompts.
3. During setup, check the option to **"Install service"** (so Mosquitto runs in the background).
4. Finish installation.

By default, Mosquitto is installed at:

C:\Program Files\mosquitto

Step 3: Configure the Broker (Optional)

Edit the config file if needed:

C:\Program Files\mosquitto\mosquitto.conf

You can create a minimal config file if one isn't there:



listener 1883
allow_anonymous true

Step 4: Start the Broker

You can run Mosquitto:

- As a **Windows Service** (installed by default)
 - Start from Services.msc → Find "Mosquitto Broker" → Start it
 - Or manually via command prompt:
 - "C:\Program Files\mosquitto\mosquitto.exe" -v
-

Step 5: Test Mosquitto (Publisher/Subscriber)

Use Mosquitto client tools that were installed:

Open two Command Prompts:

- **Terminal 1 – Subscriber**
- `mosquitto_sub -h localhost -t test/topic`
- **Terminal 2 – Publisher**
- `mosquitto_pub -h localhost -t test/topic -m "Hello MQTT from Windows"`

You should see the message appear in Terminal 1.

Step 6: Add Username/Password (Security)

1. Create password file:
2. `mosquitto_passwd -c passwordfile.txt mqttuser`
3. Add this to your `mosquitto.conf`:
4. `password_file passwordfile.txt`
5. `allow_anonymous false`
6. Restart Mosquitto.



Step 7: Use a GUI Tool (Optional)

To interact with MQTT visually:

- MQTT Explorer
- MQTT.fx