

MQTT for IoT

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What is MQTT

- MQTT is an open and simple client server publish/subscribe message transport protocol designed for machine-to-machine communication between different devices in environments of high latency and low network bandwidth.
- **What is this?**

Machine to Machine Communication

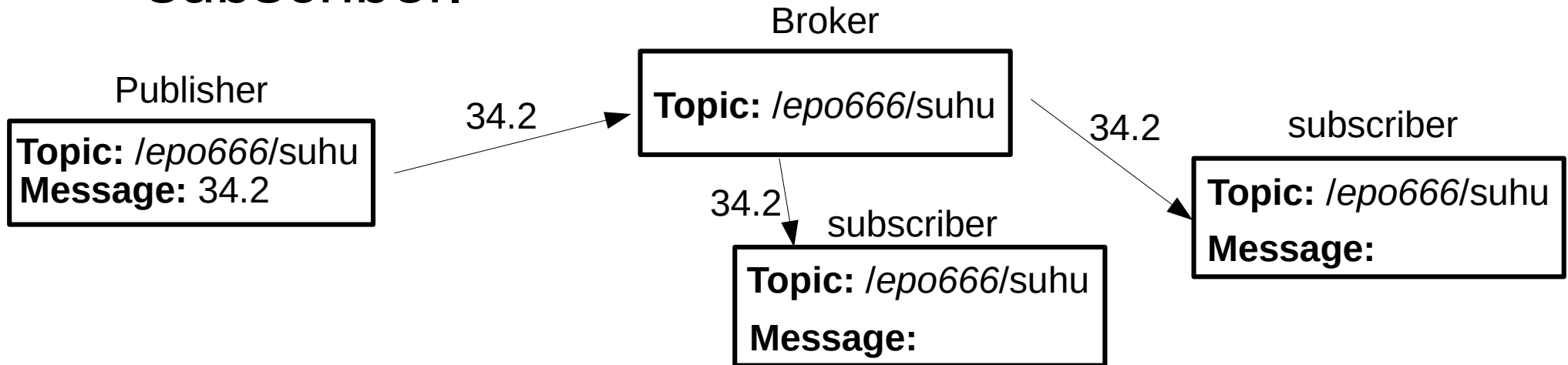
- Ways for a device (or machine) to talk to another device (or machine)
- It happened all the time in the IoT context.
- Eg: in smart home when temperature sensor talk to automatic fan. Smart phone is controlling house light.

Low Latency and Low Network Bandwidth

- MQTT is very lightweight and small footprint
- MQTT will deliver message in unreliable environment, unstable connection.

Client server publish/subscribe

- In complex environment, managing communication and data is very hard.
- MQTT comes with broker, topic, publisher and subscriber.



Simple, can be done through python

- ***pip install paho-mqtt*** in your command prompt
- The Paho Python library came about because there were no Python libraries for MQTT at the.
- It was started out in 2010 as a wrapper around the mosquito C client library, but has long since been pure Python, supporting Python 2.7 and 3.x.
- The library implements a client class that can be used to add MQTT support to your Python program either by creating instances of the client or through inheriting with your own class.
- It also provides some helper functions to make publishing one shot messages extremely easy.

Simple, can be done through python

- Create new file pub.py
- This code will publish to broker with username and password
- Create another file sub.py
- This code will subscribe to all topic and listen

Installing Mosquitto on Windows

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

Try with our server and own server

- Play around with your code
- Have fun