Introduction to MQTT

Message Queue Telementary Transport

By Manash

MQTT is a machine-to-machine (M2M)/"Internet of Things" connectivity protocol.

*Like http but different

Home Automation Architecture using MQTT

What's this all about?

- Public/Subscribe Messaging
- Asynchronous
- Simple terms: connect, publish
- Smallest possible packet size is 2 bytes
- … And a lot more

Comparison of MQTT & HTTP

- MQTT is agnostic of data content and transfers simple byte arrays

- MQTT has few methods (publish/subscribe/unsubscribe)

- HTTP is (basically) document-centric

- HTTP can be complex, (POST/PUT/GET/DELETE? Anything else missing??)

MQTT IS LIGHT ON NETWORK

MQTT

- Sends the value that are necessary
- Non verbose
- Easy distribution of Data
  - 1 to none
  - 1 to 1
  - 1 to n
- Supports Fire and Forget

HTTP

- Contains unnecessary values
- Verbose
- It maintains point to point
- It has no retry /confirmation /attempt at once-only delivery

Application

- Where Lightweight CPU/MCU are used
- Home automation
- Gardening
- Mind Controlled Electrical Thingys
- Radiation Mapping
- … more

MQTT Resources

One URL says it all

https://github.com/hobbyquaker/awesome-mqtt