MQTT (Message Queuing Telemetry Transport)

Publish

Subscribe

Simple communication between multiple devices -> Simple Messaging protocol

. constrained devices

.low bandwidth

Send a command to CONTROL AN OUTPUT

Holiday lights

arduino

Node red

Raspberry pi

MQTT MQTT

READ and Publish data

sensor

Node red

Raspberry pi

arduino

MQTT MQTT

MQTT Basic Concepts

. Publish/Subscribe

. Messages

. Topics

. Broker

Publish/Subscribe Publish

DEVICE 2

DEVICE 1

Publish Subscribe

. Device 1 publishes on a topic.

. Device 2 is subscribed to the same topic in which device 2 is subscribed in

. device 2 receives the message

(messages): information exchanged between your devices -command or data

TOPICS

. interest for INCOMING MESSAGES

. specify WHERE you want to PUBLISH

Topics are represented with STRINGS separated by SLASHES “/”

Slashes indicate the TOPIC LEVEL (Coding Syntax)

Topic level separator (slash)

Home/office/lamp

Topics – Turn on a lamp

Home/office/lamp

MQTT Client

Raspberry pi

Node red

publish in: publish in: MQTT Client

arduino

Holiday lights Home/office/lamp home/office/lamp

MESSAGE: “ON” MESSAGE: “ON” Lamp is ON

Subscribe to:

Home/office/lamp

(Topics are CASE-SENSITIVE)

MQTT Broker

. Receives all the messages

. Filters the messages

. Publishes the messages to all subscribed clients

Publish publish

Device 2

broker

Device 1

Subscribe

Mosquitto

https://www.youtube.com/watch?v=EIxdz-2rhLs