

Introduction to MQTT



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Agenda for Discussion

- 1 MQTT Overview
- 2 Publish-Subscribe Pattern
- 3 Key Terms
- 4 Wildcards
- 5 Quality of Service



MQTT Overview

✔ Message Queuing Telemetry Transport

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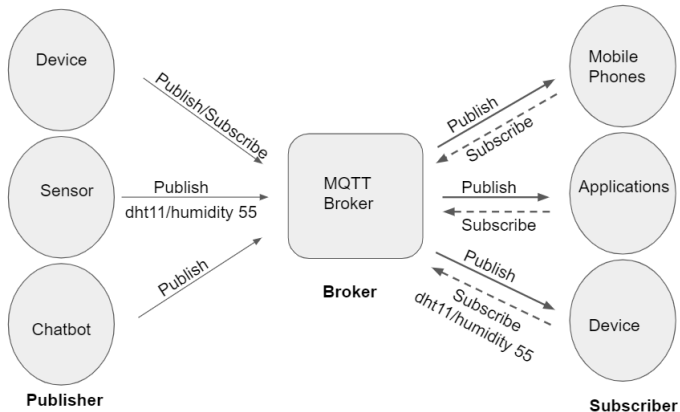
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- ✓ Minimal packet overhead

Publish-Subscribe Pattern



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- ✔ **Publish:** Client sending a message to the broker, using a topic name.
- ✔ **Subscribe:** Client tells the broker which topics it is interested. The broker sends messages published to that topic.

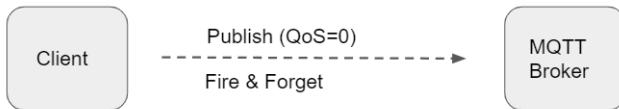
Wildcards

- ✓ Helps the developer to subscribe to multiple topics simultaneously.
- ✓ Wildcard is only available for subscription, not for publishing.
- ✓ Two wildcard character are supported:
 - **Single Level '+'**: Example: Sensor+/TEMP will match Sensor/dht11/TEMP and Sensor/dht22/TEMP.
 - **Multi Level '#'**: Example: Sensor/dht11/# will match any topic starting with Sensor/dht11, such as Sensor/dht11/Temperature, Sensor/dht11/Humidity, Sensor/dht11/Pressure.

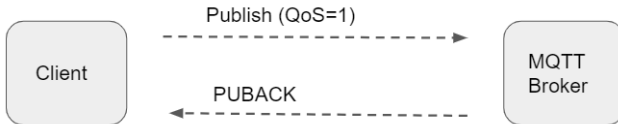
Quality of Service

QoS is used in MQTT to set the message delivery guarantee levels.

- **QoS 0: At most once**

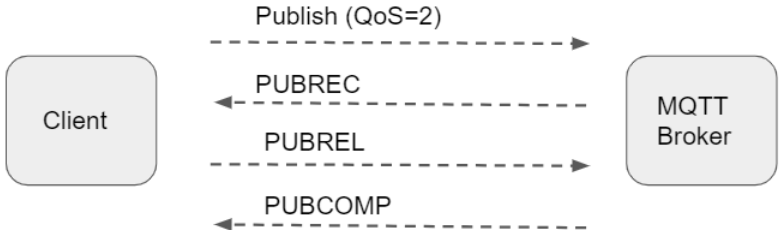


- **QoS 1: At least once**

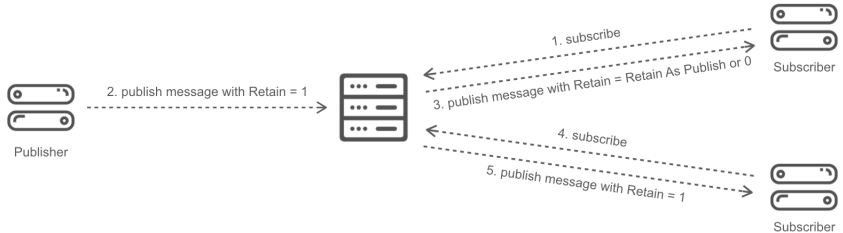


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- QoS 2: Exactly once

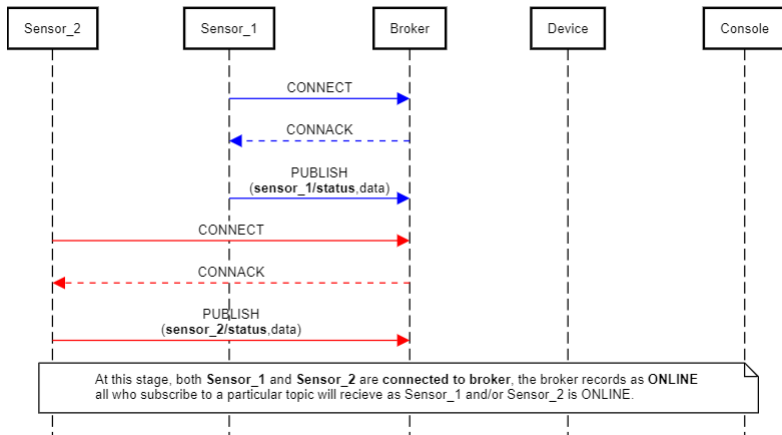


Retained Message

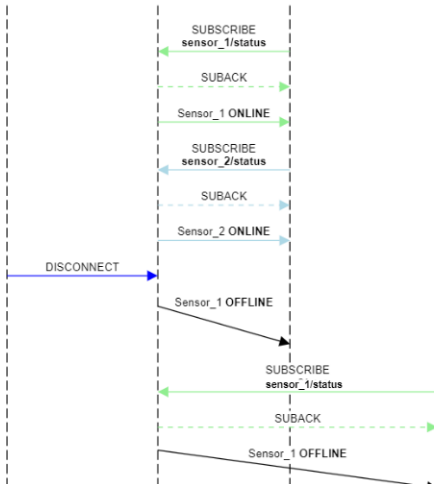


Birth/Death Message

Birth/Death Messages

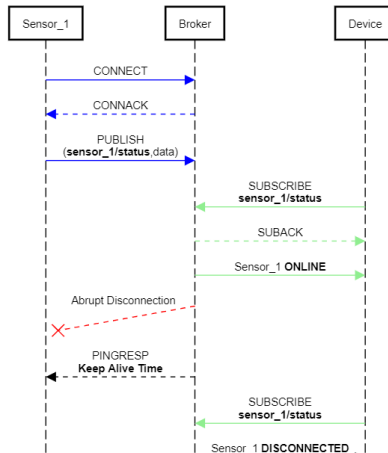


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LWT Message

Last Will and Testament(LWT) Messages



Thank You!

Post your queries on: support@e-yantra.org