**MQTT**

**MQTT (Message Queuing Telemetry Transport)** is a lightweight, publish/subscribe messaging protocol designed for machine-to-machine (M2M) and Internet of Things (IoT) communications. It is widely used in scenarios where devices with limited processing power and bandwidth need to communicate efficiently and reliably, such as in sensor networks and remote monitoring systems.

**Key Features of MQTT:**

1. **Lightweight**: MQTT is designed to minimize network bandwidth and device resource requirements, making it ideal for IoT applications with constrained environments.
2. **Publish/Subscribe Model**: Instead of direct device-to-device communication, MQTT operates using a broker-based system where devices publish messages to topics, and other devices subscribe to those topics. This decouples the producers and consumers of data, providing flexibility in communication.
3. **Efficient for Low-Bandwidth Networks**: MQTT's small message header (just 2 bytes) ensures low overhead, making it efficient for communication over low-bandwidth, high-latency, or unreliable networks.
4. **Persistent Sessions**: MQTT supports persistent sessions, so devices can reconnect and retrieve messages they missed while disconnected.
5. **Retained Messages**: When a message is published as retained, it is stored on the broker and sent to any new subscribers to that topic upon subscription.