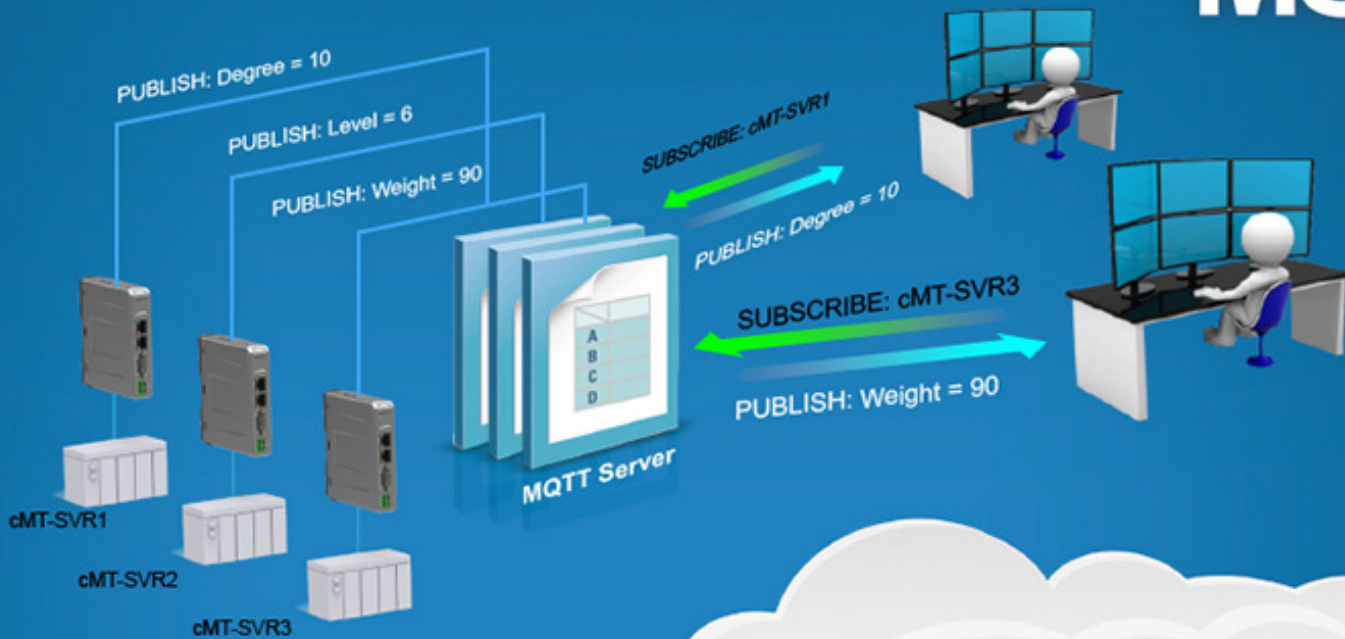


Weintek HMI builds up IoT application via MQTT.ORG



Introduction

The Internet of Things, IoT requires disparate devices to communicate to one another and exchange data. In order to effectively communicate with a wide variety of different devices, MQTT (Message Queue Telemetry Transport) becomes a standard communication protocol in IoT. This communication protocol is a lightweight publish/subscribe messaging protocol for M2M (machine to machine) communications and is already being widely implemented in different application service such as Facebook messenger. and Amazon web service.

Unlike traditional request-response polling protocols such as HTTP or Modbus, MQTT is based on the principle of publishing messages and subscribing to topics, where every HMI publishes messages to a MQTT server that functions as a broker. Every MQTT message is also classified by one topic. In this manner, the MQTT broker is capable of reliably and precisely sending the message out to those clients who have previously subscribed to this topic.

With the capability of communicating over 250 major manufacturers of PLC and controller, Weintek HMI efficiently integrates diverse data between different devices and effectively publishes needed data to the MQTT broker. The MQTT broker can be located at a web server or alternatively located in the HMI. That is, the clients can subscribe directly to the MQTT broker inside the HMI and receive message updates. This scheme can be realized even remotely as long as the clients can connect directly to HMI, such as with EasyAccess 2.0. This way leverages the use of MQTT in industrial automation applications and is particularly suitable for continuous monitoring of sensory data such as temperature, pressure, water level, energy monitoring, and etc.

■ Features :

- **Time-driven/Event-driven message publishing system**

Weintek HMI publishes notifications of PLC and controller with time-driven or event-driven message publishing system. In a time-driven system, the message is published every certain of period; the message is published as soon as a notification occurs in an event-driven system.

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■ Advantages :

- **Reliable message delivery**

Based on the publish/subscribe patterns and QoS (Quality of Service, level 2) in MQTT, we offer the safest delivery to guarantee the message will be received by the clients when publishing from HMI. With Keep-Alive message functionality, the MQTT Broker will notify the clients if HMI is still online and help them understand the most updated operational status of HMI.



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