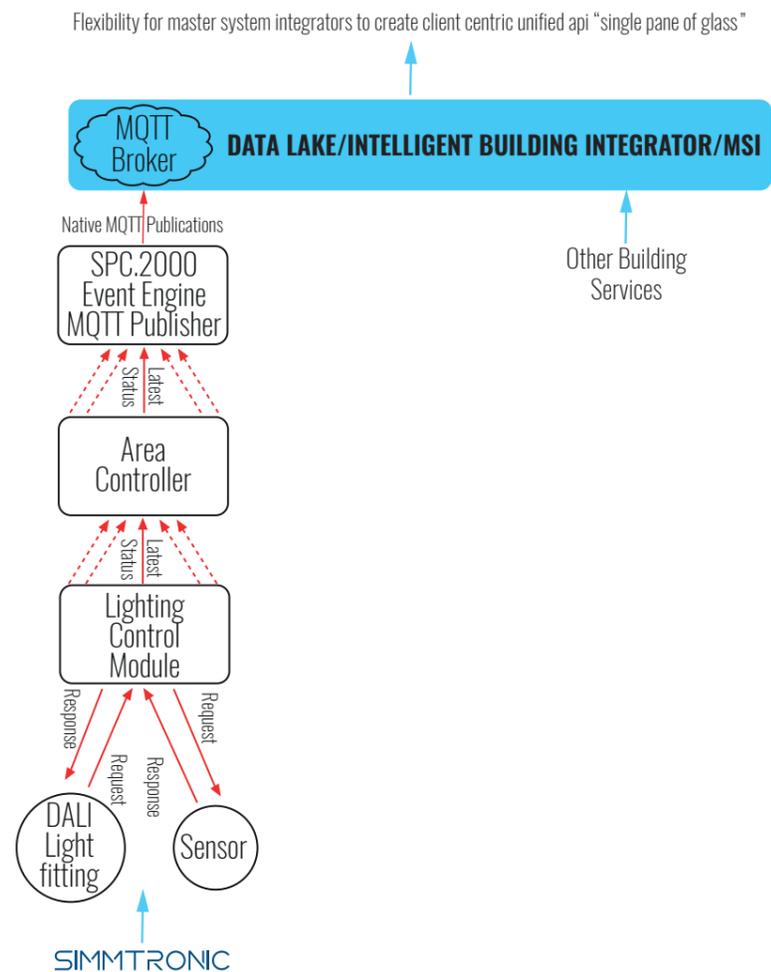# MQTT

SIMMTRONIC MQTT PUBLISHER

SIMMTRONIC MQTT PUBLISHER

MQTT (Message Queuing Telemetry Transport) is an ISO Standard Network Protocol particularly suited to smart technology and the underlying need to efficiently exchange vast amounts of dynamic building-wide status information, to achieve enhanced building performance and utilisation.

MQTT can provide the required data richness, delivering in web-like structures that software engineers can most efficiently manipulate, and it can publish events immediately when anything happens.

Flexibility for master system integrators to create client centric unified api "single pane of glass"

MQTT Broker

DATA LAKE/INTELLIGENT BUILDING INTEGRATOR/MSI

Native MQTT Publications

SPC.2000 Event Engine MQTT Publisher

Other Building Services

Latest / Status

Area Controller

Latest / Status

Lighting Control Module

Response / Request / Response / Request

DALI Light fitting

Sensor

SIMMTRONIC

The structure of the Simmtronic lighting control system is tailored to providing rapid MQTT data updates for every lighting asset.

KEY FEATURES

Comprehensive Data Analysis | Simmtronic Data Aggregation Architecture which enables rapid data provision | Hosted on Robust Simmtronic SPC.2000 Control Processor with continuous operation | Simmtronic MQTT Software Model publishes data directly without third party gateways

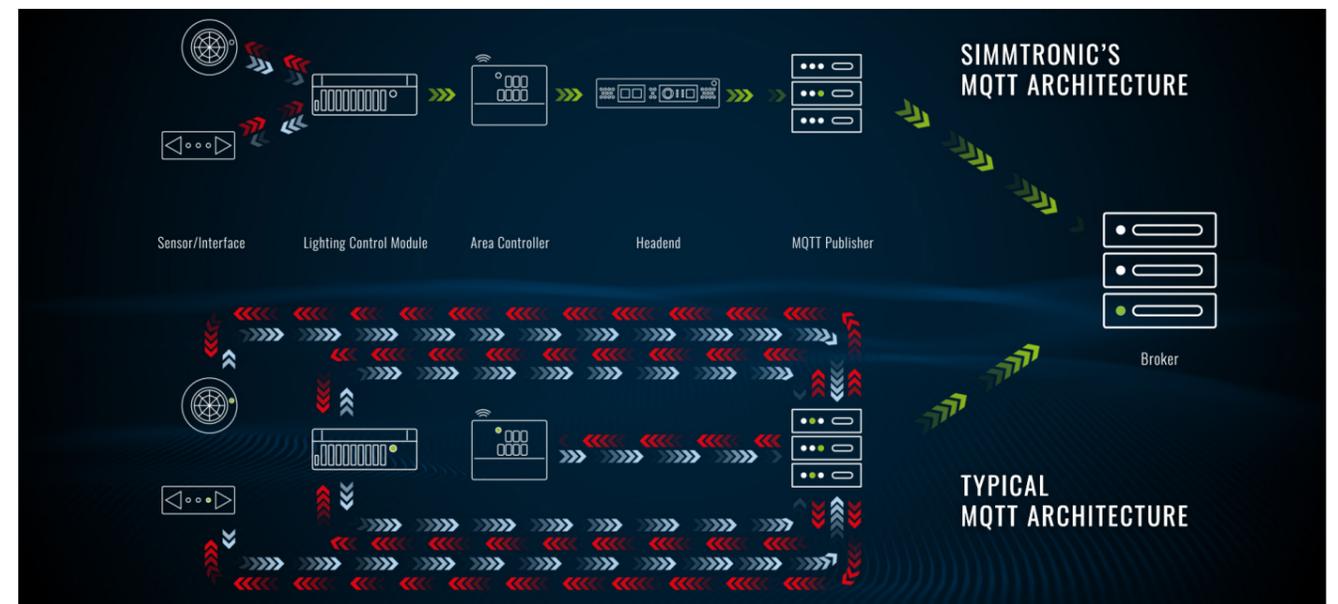COMPREHENSIVE DATA ANALYSIS, AVAILABLE INSTANTANEOUSLY, INCLUDING:

· Lighting Levels
· Occupancy Status
· Energy Performance (when purchased with Simmtronic energy monitoring toolset)
· Device specific data for Area Controllers, Light and Blind Control Modules, Sensors
· Gear and Lamp Faults, Maintenance reporting

Rich Data Content

Data collected by Simmtronic Lighting Control Modules includes a wide range of inventory information, in addition to fault/status information and outputs from sensors. For DALI devices, information collected includes manufacturer and product model details, serial number, software version, device capabilities and optional features supported. For emergency light fittings, data provided via MQTT also includes latest test dates and test results. This rich content is possible because MQTT support is native to the Simmtronic system. The Simmtronic MQTT publisher does not depend on gateways or protocol translators from lower level protocols.

Building Information Modelling (BIM) Identifiers

A number of BIM 'tags' can be included in each publication. These can be tags relating to the asset, to each data point or both. Both GUIDs and Asset IDs are supported. Simmtronic uses software tools that import tags generated in the BIM system automatically to populate the lighting control database; these tools ensure accurate and error-free transfer of tag information, essential for systems with tens of thousands of tags.

SIMMTRONIC'S MQTT ARCHITECTURE

Sensor/Interface   Lighting Control Module   Area Controller   Headend   MQTT Publisher

Broker

TYPICAL MQTT ARCHITECTURE

The comparison between Simmtronic MQTT architecture and 'typical' MQTT architecture

SIMMTRONIC