# IIoT Software

Make Your Data More Accessible, Powerful, and Efficient with MQTT

Ignition IIoT by Inductive Automation is an end-to-end Industrial Internet of Things (IIoT) solution that combines the amazing efficiency of the MQTT data-transfer protocol with the unlimited data acquisition and development power of the Ignition industrial application platform.
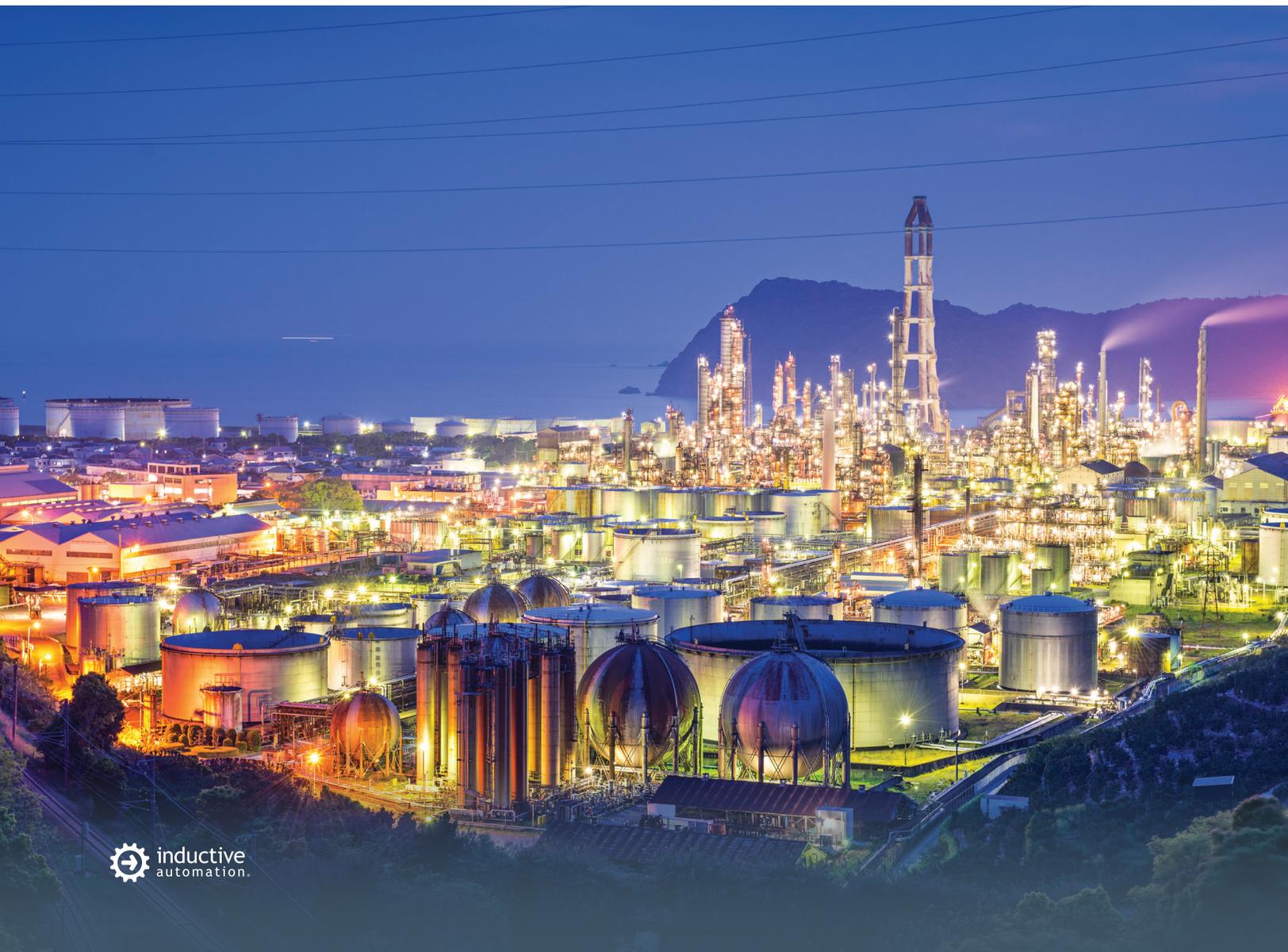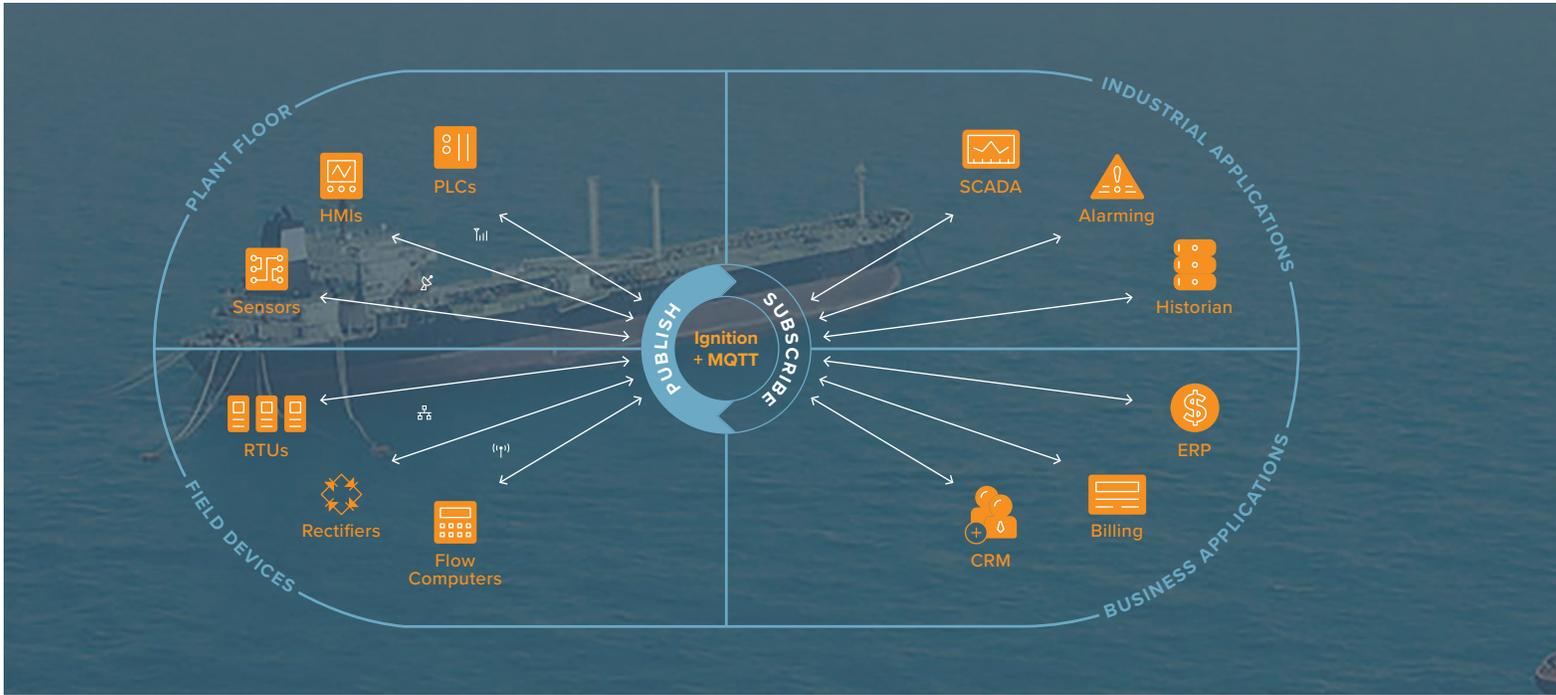
Instantly Subscribe to Your Industrial Data

For years, industrial applications have polled for data by directly connecting to devices, resulting in antiquated systems that are unnecessarily complicated, nearly impossible to scale, and that leave huge amounts of data stranded in the field. By leveraging the MQTT protocol's publish-and-subscribe methodologies, Ignition decouples devices from applications and pushes the polling to the edge of the network. This creates one streamlined data pipeline that frees data to be instantly accessible to the entire enterprise, without straining data bandwidth.

MQTT: Build a Truly "Industrial" Internet of Things

Ignition uses MQTT: a proven, standard, data-transfer protocol that is quickly becoming the leading messaging protocol for the IIoT. MQTT was designed specifically to meet the demands of industrial control systems, so it's extremely lightweight (2-byte header), bidirectional, stateful, and secured with TLS technology.

One Universal Platform for IIoT, SCADA and More

Ignition is the only IIoT platform with built-in tools for creating full-featured SCADA systems. Ignition is modular, so you can easily add fully integrated software modules for building industrial applications such as SCADA, alarming, reporting and more. With Ignition, you can connect to all your IIoT data, rapidly develop any kind of industrial application, and instantly web-launch clients to virtually any device — all without limits.

Automatic Tag Creation and Health Metrics

Eliminate hours of tedious data entry with Ignition and MQTT. Upon each initial connection, tags are automatically learned and instantly created in Ignition. Once tags are created, their data values are continually updated as new values are published from the field. With Ignition, you can track metrics about the health of your system, including data from end devices, edge gateways, and MQTT servers.
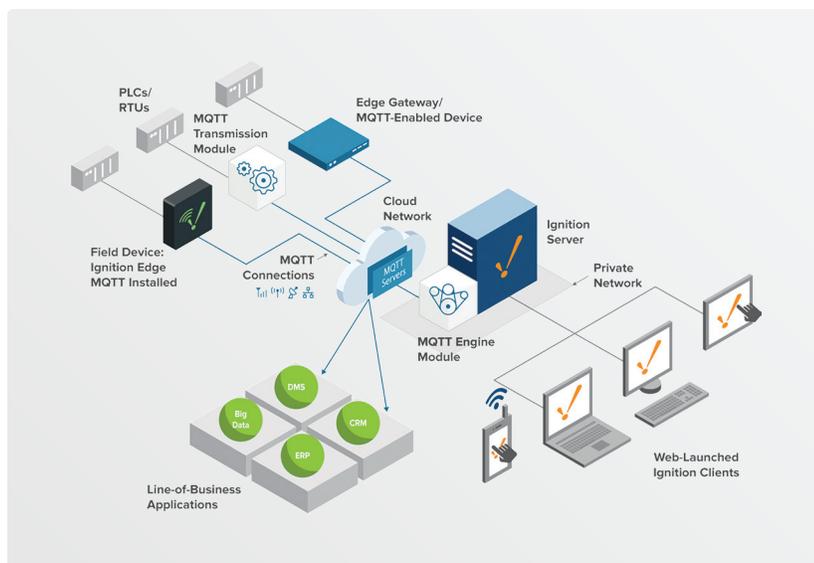

Flexible & Scalable Architectures: In the Cloud, On-Premise, or Both

The architecture of Ignition IIoT is flexible: you can set it up in the Cloud, on a private on-premise network, or a hybrid of both. Ignition is also easily scalable so you can grow from a small system to an enterprise-wide solution with ease.

Add Integrated MQTT Software Modules

Cirrus Link Solutions is a strategic third-party module partner of Inductive Automation with years of experience developing top-quality IIoT solutions. With software modules for transmitting data from the field via MQTT, launching an MQTT server in the cloud, and connecting that data to industrial and business applications, the Cirrus Link IIoT modules for Ignition empower organizations to create one streamlined pipeline for all their IIoT data.

Ignition IIoT Architectures

2 MQTT Server

PLC

1 Edge Gateway

3 Ignition Platform

4 SCADA Client

Business Applications

Adding the Cirrus Link MQTT Modules to the Ignition platform empowers companies to set up their own IIoT solution. There are four main features to an Ignition IIoT architecture.
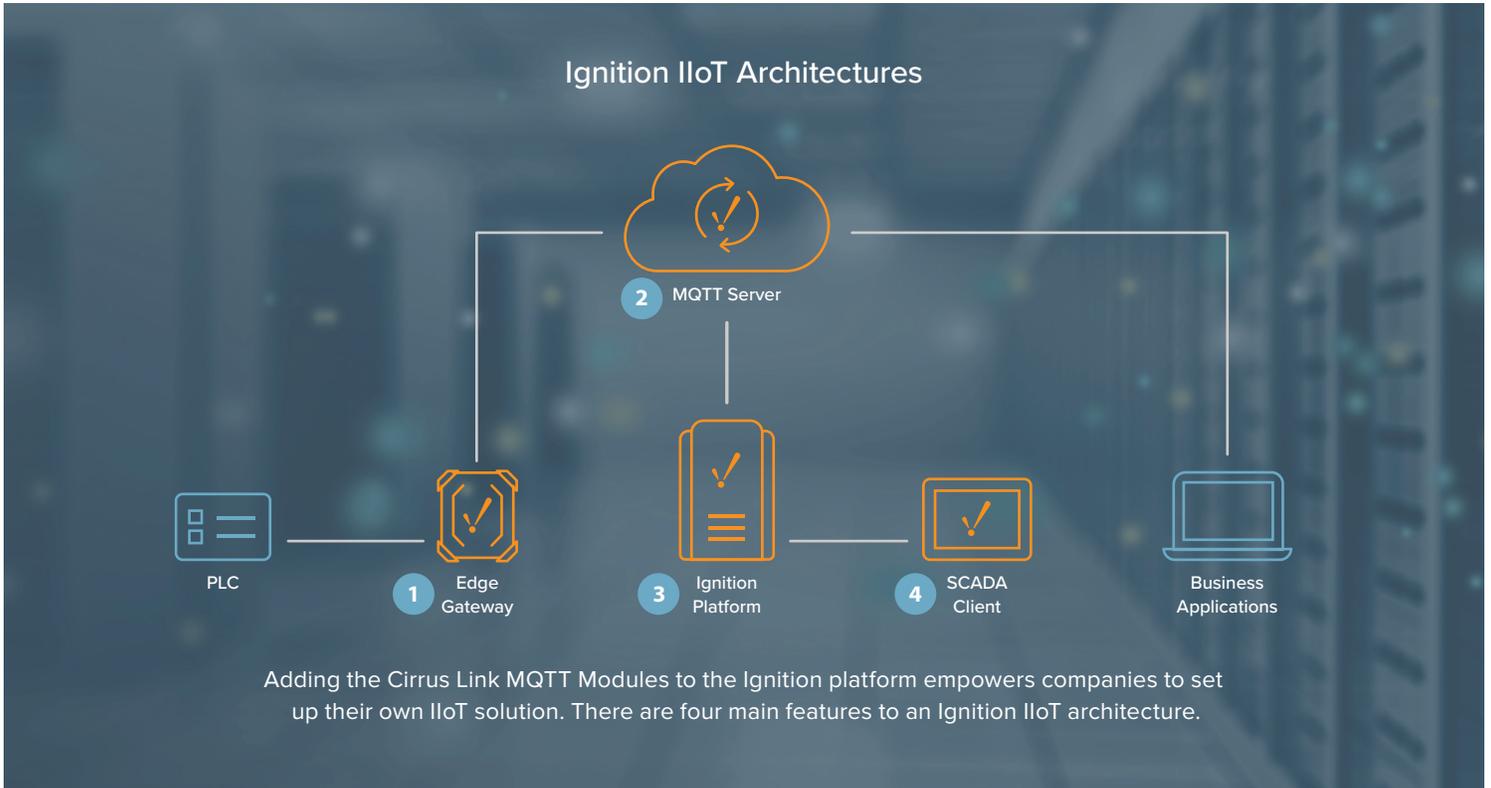
1. Publish Data from The Network's Edge

With Ignition IIoT, you can connect to virtually any PLC or device, and transmit and receive edge-of-network data in multiple ways.

3. Connect Ignition to an MQTT Server

The Ignition MQTT Engine Module gives Ignition the ability to bidirectionally communicate with an MQTT server and share that data with any Ignition client.

2. Publish and Subscribe to Data Through MQTT

Ignition has several ways to securely connect, publish, and subscribe to MQTT data including launching its own MQTT server or connecting to compatible ones.

4. Build and Deploy Ignition Applications

With Ignition, you can build an MQTT infrastructure, design any kind of industrial application, and deploy it to any number of Ignition clients across your enterprise.