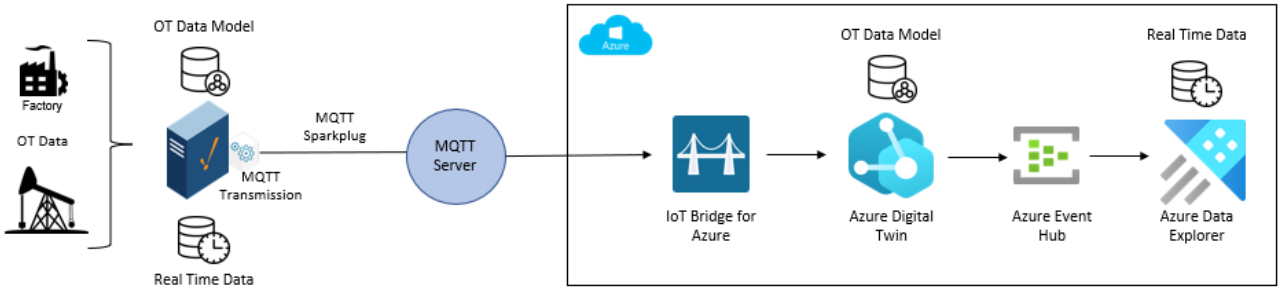
IoT Bridge for Azure

IoT Bridge for Azure is an application that is deployed via Azure Marketplace as a VM image. It connects to an MQTT Server and consumes MQTT Sparkplug messages from Edge devices. After receiving messages that are properly formatted it then pushes that data into Azure Digital Twins in a form that it can consume. This model continues Cirrus Link's vision of 'one source of truth' at the Edge that can be pushed from the OT networks to IT networks without complex data transformations or manipulation as it flows from one system to the next.

IoT Bridge can be deployed in the environment shown below without the need for any custom code to be written. Using Inductive Automation's Ignition platform at the Edge with Cirrus Link's MQTT Transmission module, a wide range of information can be automatically gathered and published. This includes but is not limited to Inductive Automation's OPC modules and Cirrus Link's EFM modules. Through configuration with these tools, data is automatically captured and published as Sparkplug based MQTT messages to an MQTT Server. From there, IoT Bridge consumes this data and again automatically pushes that data to Azure Digital Twins. It automatically creates Models and Digital Twins using the OT defined Edge models, attaches attributes to them, and creates measurements and updates their values as new Sparkplug MQTT messages flow through the system. Again, this is done without being required to write any code at either the Edge or in the Cloud.



IoT Bridge performs the following functions.

- Connects to an MQTT Server to be able to receive MQTT Sparkplug messages from Edge devices
- Connects to Azure Digital Twins to do the following
    - Automatically creates Azure Models that have been created at the Edge using Sparkplug Templates
    - Automatically creates Azure Digital Twins using the Models that have already been created
    - Automatically updates measurements in real time or historically as messages flow through the MQTT Server