

MQTT Publisher v1.0 MDB Extension

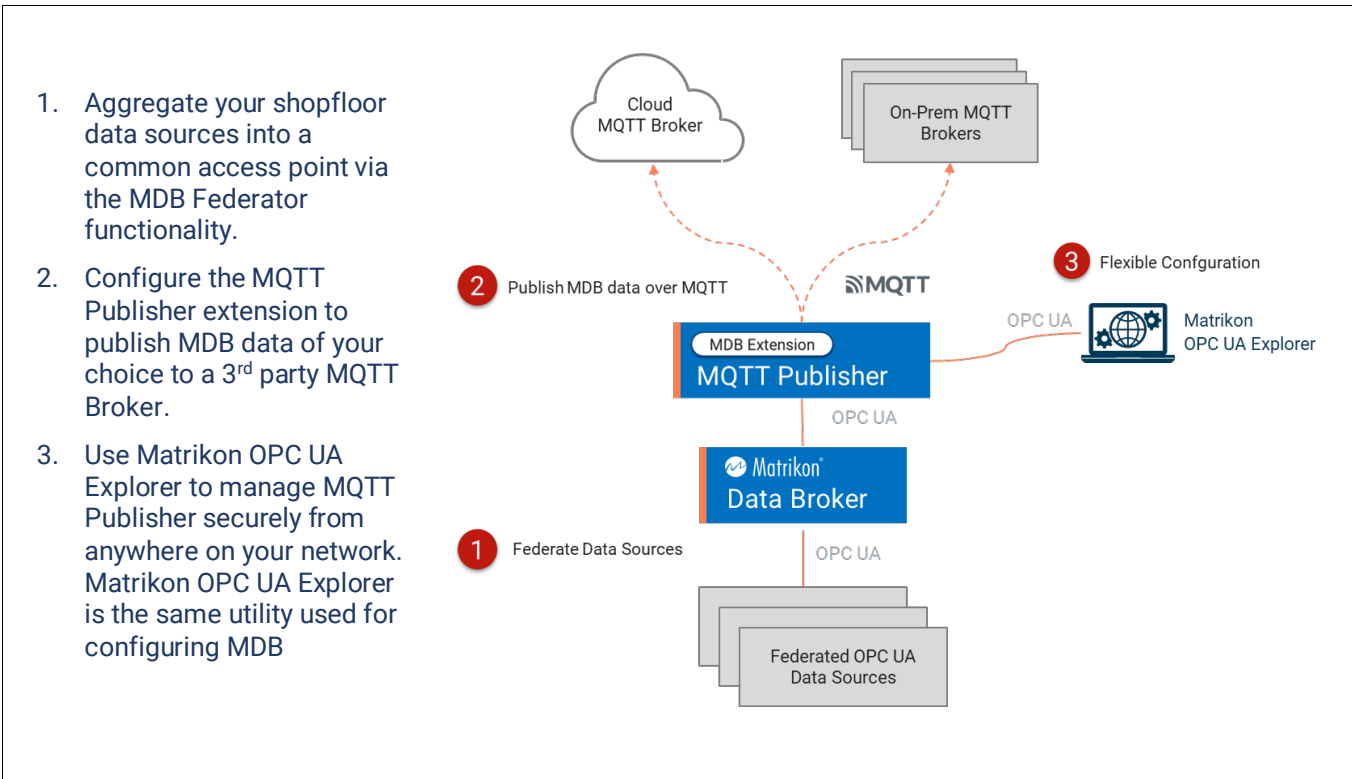


The MQTT Publisher extension enables Matrikon Data Broker (MDB) to publish data over MQTT.

Overview

This MDB extension provides an easy and convenient way to securely publish shopfloor data you federated using MDB over MQTT. MQTT Publisher is a free extension you can use concurrently with regular MDB OPC UA Client/Server communications. MQTT Publisher complies with the OPC UA PubSub specified JSON encoding for maximum standards-based interoperability,

The following diagram illustrates a typical architecture built using MDB and the MQTT Publisher extension.



Note: if your shopfloor data sources are behind a firewall or DMZ, refer to the [MDB webpage](#) to learn how you can easily establish secure connectivity with them so their data can also be published via MQTT Publisher.

Use Case

- Data is often published over MQTT in one-to-many scenarios where an MQTT publisher makes data available to MQTT subscribers. The connectionless aspect of MQTT makes it a popular choice for WAN (internet) based applications because it avoids the types of security threats associated with point-to-point connection-based transports.

- MQTT Publisher uses OPC UA PubSub compliant JSON data encoding to maximize interoperability. This minimizes future sustainability challenges associated with supporting custom JSON encoding

Solution Benefits and Advantages

Secure & Reliable Communications

- **Cloud Communications:** On top of native Matrikon Data Broker OPC UA Client/server connectivity, MQTT Publisher adds MQTT publishing for seamless, to-cloud data sharing.
- **OPC UA PubSub Data Format:** MQTT Publisher complies with the OPC UA PubSub standard's JSON data encoding format. This avoids sustainability and tech-debt issues associated with custom data encoding formats.
- **Reliable Data Sharing:** MQTT Publisher buffers data to be published to prevent data loss in case intermittent network interruptions happen. The amount of data buffered is configurable.
- **Security:** Maximizes MQTT data security using commercial-strength TLS security.

Enterprise IT-Grade Administration

- **Enterprise Deployment:** MQTT Publisher supports silent container deployment and on-premises installation. (Windows)
- **Centralized Configuration:** configure and manage MQTT Publisher securely from anywhere on your network using Matrikon OPC UA Explorer, the same application used for managing MDB.

Comprehensive Shopfloor Data Connectivity Options

- **OPC UA to MQTT Conversion:** Convenient way to convert your OPC UA data into MQTT data streams.
- **Aggregation:** Leverages MDB federation functionality to simplify data connectivity architectures via a single point-of-access to all your shopfloor data (and its context).
- **Performance & Scalability:** As an MDB extension, MQTT Publisher data throughput scales in lockstep with MDB, to ensure this solution grows with your organizational needs.

Next Steps:



Get started with MQTT Publisher in minutes
– **download the free MDB extension now!**



Product Specifications

Supported Standards

- OPC UA DA (OPC UA Data Access)
- MQTT v1.3
 - Publish functionality
 - OPC UA PubSub conformant JSON encoding for seamless support of underlying OPC UA Companion Specification based data (i.e. standardized Information Models)

System Requirements

Hardware Requirements

The following are minimum PC hardware requirements:

- CPU 2-cores
- 4GB RAM
- 80 GB Hard Drive
- TCP/IP connectivity

Supported Operating Systems (64 Bit)

- Windows 10
- Windows Server 2012
- Windows Server 2016
- Windows Server 2019
- Linux Ubuntu 18.04
- Linux CentOS 8.0
- Linux Red Hat 8.0 (RHEL)
- Linux Container



More Information

To learn more about Matrikon,
visit <http://www.MatrikonOPC.com>
or contact your Matrikon account manager.

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