

Matrikon[®] Data Broker 2.0

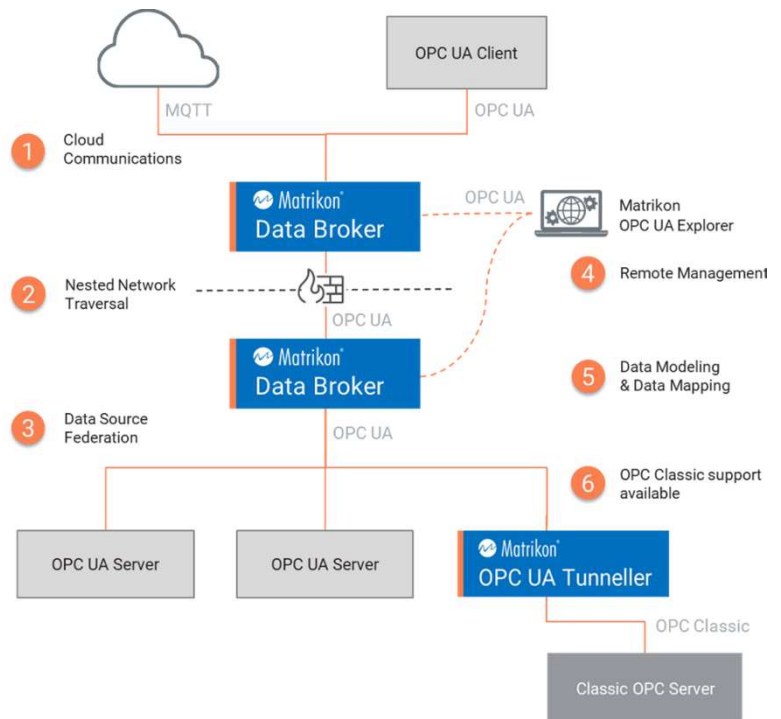


Take charge of your shopfloor data communications with Matrikon Data Broker (MDB), the one-stop solution for the setup and management of secure data connectivity throughout your OT networks, across enterprise IT networks, and to the cloud.

Overview

Overcome complex IT and OT challenges out-of-the-box using advanced Matrikon Data Broker (MDB) functionality that includes:

- NEW** 1. **Flexible cloud connectivity:** direct to-cloud communication integration via the MQTT Publisher extension or via easy cloud vendor integration. (Ex. Azure)
- 2. **Nested network traversal:** seamless, secure OPC UA connectivity across firewalls and DMZs using “inside-out” connectivity (UA Reverse Connect).
- 3. **Federation:** aggregation of multiple data sources into a single access point.
- 4. **Remote management:** secure remote deployment and management.
- NEW** 5. **Data modeling & Data mapping:** Easy 3rd party data source context enhancement that works with your existing and new data sources.
- 6. **OPC Classic support:** supports use of 3rd party OPC classic components via Matrikon OPC UA Tunneller



Use Cases

Matrikon Data Broker uses an integrated approach to setting up and managing data connectivity between OT systems and components on IT networks. DB nodes are equally well suited for use as stand-alone applications for specific tasks or in multi-node configurations for large infrastructure projects.

Matrikon Data Broker use-cases include:

- **Infrastructure modernization** where existing production asset connectivity must be upgraded “in-place” to meet growing, IIoT/14.0 era data requirements
- **New site implementations** that must utilize open, sustainable, and future-proof data connectivity for maximum ROI
- **Rapid Proof of Concept (PoC) execution** where digitalization, Industrial Internet of Things (IIoT), and Industry 4.0 (I4.0) projects require real-time access to shopfloor data to succeed
- **Point solutions:** where secure, seamless access to one or more data sources behind OT firewall(s) and De-militarized zones (DMZs) is needed
- And much more...



Matrikon Data Broker defines a category of software called **Data Technology (DT)** because it eliminates IT/OT gaps and other complex data connectivity challenges “under-the-hood”. This provides a single, scalable, and wholistic data connectivity experience enterprise wide.

This enables MDB users to across the enterprise focus on extracting value from shopfloor data instead of trying to access it.

Solution Benefits and Advantages

Data Context Enhancement and Data Sharing

- NEW** • **Data Modeling:** MDB puts the power of data modeling **NEW** into end-users hands without programming. Use custom and standardized UA Companion Specifications (CS) created by joint working groups like VDMA, umati, MT Connect, MDIS, and all other compliant CSs.
- NEW** • **Data-Source to Data-Source Mapping:** Simplify infrastructure by eliminating the need for additional applications when routing data between data sources. **NEW** MDB can route data between all federated data sources.
- NEW** • **Data-Model to Data-Model Mapping:** Freely extend the value of new and existing CSs by mapping between them to create new data types that best reflect your applications.
- **Data-Source to Data-Model Mapping:** Breathe new life into data from your simplest, oldest data sources and enhance the context of new components by mapping items from those sources to new data model instances you create on the fly. This enables the rest of the enterprise, enhanced and consistent data context instead of the disparate and simpler contexts of the underlying data sources.
- **Better Data Driven Insights-Faster:** Enriched data source context serves as better data foundation for digital twins, cloud AI and ML applications which translates to getting better analytics-based insights faster and with less effort.

Secure and Reliable Cloud Connectivity

- NEW** • **Cloud Communications:** MDB provides seamless, to-cloud data sharing from all your federated OPC UA sources and keeps you in control of what gets shared.
- Enhanced cloud integration with major 3rd Party cloud providers (ex. Microsoft Azure, AWS, Google Cloud, and others).
- Data published using the MDB MQTT Publisher extension complies with the OPC UA PubSub JSON encoding format for maximum compatibility and minimal custom-format sustainability issues.
- Reliability Built-in: MQTT Publisher prevents data loss during intermittent network Security: Maximizes MQTT data security using commercial-strength TLS.
- For more information on the MDB MQTT Publisher, visit matrikonopc.com/MQTT

Enterprise IT-Grade Administration

- **Enterprise Deployment:** Enables enterprise-wide deployment via any combination of silent container deployments and on-premises installations (Windows and Linux).
- **Centralized Configuration:** easily configure and manage MDB securely from remote locations or on-site.
- **Enterprise Licensing:** Flexible cloud-based or local network-based licensing models make license management fast and easy.
- **Status & Logging:** Comprehensive status tags and user-friendly log messages provide a clear picture of the health of your system. Examples of the information supplied include:
 - Connection status
 - License status
 - System diagnostics
 - And more...

Comprehensive Shopfloor Data Connectivity Options

- **Aggregation:** Simplifies data connectivity architectures by providing a secure single-point-of-access to all your data (with full context) using OPC UA federation.
- **Performance & Scalability:** MDB is a scalable, high-performance application ready for all your data connectivity needs today and in the future. For example, MDB handles over 1 million transactions per second on a standard business PC.
- **Network Traversal:** Simplifies and secures data connectivity within and between network layers in your organization. MDB makes it easy to set up secure cross-firewall OPC UA client-server connections (uni- and bi-directional). MDB uses OPC UA Reverse Connect functionality so OT network inbound firewall ports can remain closed. MDB works with OPC UA and OPC Classic components.
- **3rd Party Connectivity:** Maximizes useful life (ROI) of existing infrastructure. MDB supports 3rd Party OPC Classic clients and servers alongside new OPC UA components via Matrikon OPC UA Tunneller. This makes phased migration to OPC UA easy and effective.

Next Step



Get started with Matrikon Data Broker in minutes – [download your free trial now!](#)



Product Specifications

Supported Standards

- OPC UA DA (OPC UA Data Access)
- OPC Classic DA (Data Access) via Matrikon OPC UA Tunneller
- OPC UA Companion Specifications
- MQTT v1.3 (via the MQTT Publisher extension)
- 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

Contact Matrikon

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www.matrikonopc.com

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