



# BRINGING ENERGY TO OPC UA WITH MATRIKON® FLEX OPC UA SDK

Blue Pillar used Matrikon FLEX OPC UA SDK (Software Development Kit) for its embedded gateway to slash development costs and give industrial Internet of things energy platform users the full flexibility and security of OPC UA connectivity.

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Case Study

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## The Background

Maryland-headquartered Blue Pillar's solutions enable businesses to connect to their energy data. Harnessing the industrial Internet of things and the Cloud, its Aurora Energy platform provides real-time visibility of vital readings from fuel tanks, batteries, meters and other devices.

With Aurora, users can centralize monitoring and control of key energy assets, such as generators. Eliminating manual readings, reducing errors, and delivering tools and data for richer analysis, it gives users more efficient, safer control of the behind-the-meter energy "things" that control the electricity they rely on.

Blue Pillar's platform is used by businesses across different sectors for a wide-range of applications. Hospitals, for example, use the technology to monitor and test the generators that provide life-saving backup in case of power cuts. Energy service providers manage their energy load more efficiently by controlling generators servicing their large clients.

## The Challenge

The Aurora gateway is an essential component of Blue Pillar's solution. Connecting to generators and other devices through Modbus, it shares data and provides control to users' systems running the Aurora platform, as well as providing access to Blue Pillar for health monitoring and updates.

To enable secure connectivity for customers, Blue Pillar needed to employ the OPC Unified Architecture (OPC UA) communication protocol, using the gateway as an OPC UA Server.

Regulatory, commercial and safety considerations mean it must provide excellent cyber security. It also needed to support real-time readings and other key functions possible only with a full implementation of the OPC UA specification. At the same time, Blue Pillar needed a solution that could be implemented within the constraints of the embedded gateway's footprint, without additional onboard memory or processing power.

## The Solution

Almost ten years ago, the technology provided access to PLC data (via Matrikon® OPC Server for Modbus), the possibility to store the information (via Matrikon OPC Desktop Historian) and to present it (via Matrikon OPC Trender); however, the system needed to respect one key constraint: the PLC network had to remain as inaccessible as possible to the outside world. That meant Matrikon OPC Tunneller™ could come to the rescue only after a separate industrial network was put in place, with the OPC server machine protected behind a firewall.

## The Benefits

Blue Pillar used Matrikon FLEX OPC UA Server Software Development Kit to add OPC UA functionality to its embedded gateway. Working on devices as small as a microcontroller or as large as enterprise-based servers, the SDK radically simplifies OPC UA application development.

## Summary

Over the years, Matrikon solutions have helped identify elusive operational inefficiencies and abnormal process evolution. The system continuously supports the decision-making process for production, quality assurance, and personnel, including senior management, to keep producing healthy, high quality yogurts for all tastes and types of consumers.

## About Matrikon

Matrikon offers the industry's most extensive portfolio of OPC connectivity products and applications. Its solutions integrate Honeywell's products such as the HC900 Controller, MasterLogic PLC, single loop controllers, control systems, actuators and analyzers with third-party SCADA, historians and human machine interfaces (HMIs) to provide the ideal data connectivity.

Matrikon products are available with Honeywell products:

- Universal PLC Server
- OPC Server for Modbus
- OPC Redundancy Broker

### For more information

To learn more about Matrikon, visit [www.MatrikonOPC.com](http://www.MatrikonOPC.com) or contact your Matrikon account manager.

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