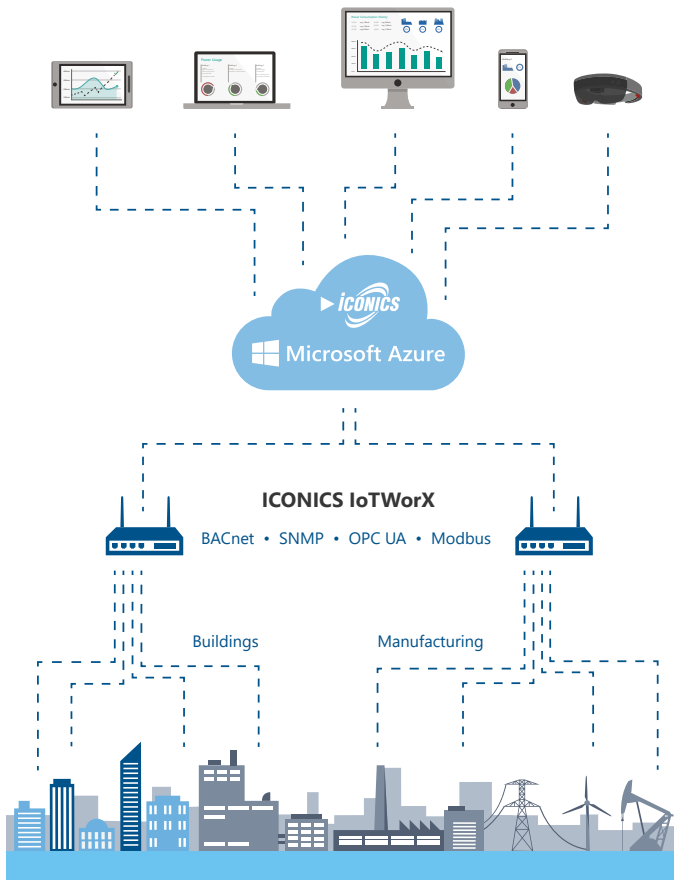




ICONICS IoTWorX™ combines new IoT software technology with affordable IoT devices to create secure cloud-ready solutions for energy, building automation, manufacturing, and industrial applications. Based on ICONICS' proven HMI/SCADA, analytics, and mobile products, a new generation of SaaS and IoT applications are now possible with IoTWorX. The convergence of these powerful technologies provides simple yet highly secure real-time, site-to-cloud communications, truly leveraging the benefits of the Industrial Internet of Things (IIoT) and Industry 4.0 standards.



IoT Device Requirements

- Processor:** Intel Atom 38xx or 39xx Dual Core
 - Memory:** 4GB RAM
 - Storage:** 32GB SSD
- Hardware purchased separately.

Security

- Encryption:** Transport Layer Security (TLS) with Azure IoT Hub
- Authentication:** PKI-based Authentication using X.509 Protocol

Industry Protocols

- OPC UA (certified)
- Modbus TCP/IP
- BACnet (BTL certified)
- SNMP
- OPC Tunneling (classic)
- Contact ICONICS for others

Secure Cloud Communication

- AMQP: Bidirectional communication between IoTWorX & Microsoft Azure
- MQTT: Outbound communication between IoTWorX & 3rd party apps
- REST: Communication to web services
- JSON: User configurable messaging

Microsoft Azure Requirements

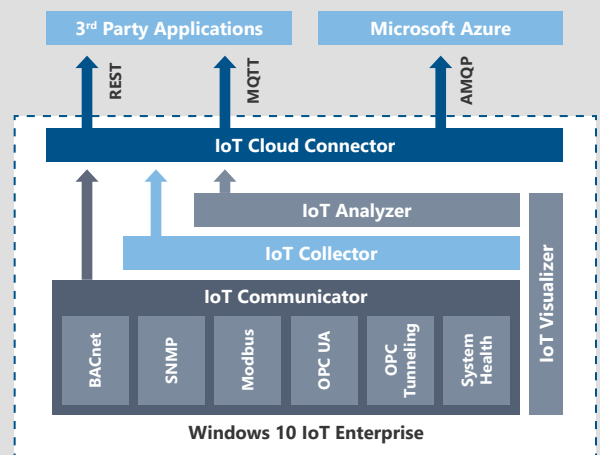
- IoTWorX is deployed on certified IoT devices and requires the following Microsoft Azure cloud services for configuration:
- Azure IoT Hub
 - Azure SQL Database



ICONICS IoT Alliance Program recommends the best-in-class IoT hardware as IoTWorX certified devices. IoT devices undergo compatibility, rigorous validation and performance testing. Visit www.iconics.com/iiot-alliance for a complete list of IoT Alliance Partners.

IoTWorX Features

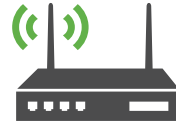
- **IoT Cloud Connector** – Publishes real-time data from field devices via AMQP to the Azure IoT Hub or via MQTT to other cloud platforms and 3rd party business systems.
- **IoT Communicator** – Bidirectional real-time communication to sensors and other field devices via popular standard protocols such as BACnet, SNMP, OPC UA, Modbus, and OPC Tunneling.
- **IoT Collector** – Stores and buffers historical data based on schedules and triggers and automatically merges that data with ICONICS Hyper Historian™ in the cloud.
- **IoT Analyzer** – Provides edge analytics with built-in fault rules and workflow technology. Stores and buffers FDD analytics data and automatically merges it with ICONICS Facility AnalytIX® in the cloud.
- **IoT Visualizer** – Allows for on-premises visualization of IoTWorX data using ICONICS KPIWorX app. Download the app from the Apple, Google, or Microsoft Stores.
- **IoT System Health** – Provides built-in diagnostics dashboard of both IoTWorX software applications and IoT hardware device performance information.



Getting Started with IoTWorX



IoT Software



IoT Hardware



Azure Services



What ICONICS Software Do I Need?

ICONICS' new IoTWorX technology can be installed on industrial IoT gateways with proven software in the cloud. IoTWorX is designed to work seamlessly with cloud-based GENESIS64™, Hyper Historian™, AnalytiX®, and MobileHMI™ applications. The ICONICS IoT solution can be purchased as affordable annual subscriptions. Here's what you need:

- An ICONICS GENESIS64 Application Server product based on tag count starting at as little as 75 tags
- An ICONICS IoTWorX license

Model	IoT Cloud Connector	IoT Communicator	IoT Collector	IoT Analyzer	IoT Visualizer
IoTWorX Communicator 5000 tags*	✓	✓			✓
IoTWorX Suite Enterprise 5000 tags*	✓	✓	✓	✓	✓
IoTWorX Suite for JSON, 500 tags	✓	✓	✓	✓	✓
IoTWorX Suite for JSON, 5000 tags	✓	✓	✓	✓	✓

* Requires subscription for one or more ICONICS products in the cloud.
All ICONICS IoTWorX models are available through affordable subscription pricing.



What Hardware Device Do I Need?

ICONICS offers a rigorous testing program to certify best-in-class gateway hardware as "Preferred Devices" from Preferred Providers as part of its IoT Alliance Program. Please choose a device that best fits your needs at www.iconics.com/iot-alliance.

If you're a provider of industrial IoT gateway devices and are interested in joining ICONICS' IoT Alliance Program, email IoT@iconics.com.



What Microsoft Azure Services Do I Need?

IoTWorX is provisioned and communicates data securely via the Azure IoT Hub, taking advantage of the inherent security features that come with an Azure subscription. The following Azure Services are recommended for any IoTWorX deployment:

- Virtual Machine – Minimum DS2_V2: 2 cores, 7 GB RAM, 14 GB disk space
- Azure IoT Hub – S1 recommended
- Azure SQL Database – Basic

