

InGateway902 Series

High-performance Edge Computing Gateway

The InGateway902 (IG902) series is a high-performance edge computing gateway developed by InHand Networks for industrial IoT. It supports mainstream industrial protocols such as Modbus and EtherNet/IP, and can adapt to private protocols. With support for major IoT cloud platforms including AWS and Microsoft Azure, as well as third-party data acquisition platforms such as local SCADA, it enables onsite devices to be connected to the cloud with ease. The IG902 supports Docker and Python programming and supports edge computing on AWS IoT Greengrass and Azure IoT Edge. It helps customers quickly pre-process data on the IoT edge, significantly reduce data flow between field sites and data centers, relieving the load in the cloud.



Advantages

DeviceSupervisor™ Agent service

- + Supports mainstream industrial protocols such as Modbus and EtherNet/IP, adaptable to private protocols
- + Supports multiple common data processing functions and custom QuickFunctions to serve needs in different scenarios
- + Provides Modbus TCP SLAVE, IEC 104 Server, OPC UA Server to dock local SCADA platforms
- + Supports major IoT cloud platforms such as AWS, Azure, third-party standard MQTT cloud platforms and InHand iSCADA remote monitoring platform, custom interaction logic with the cloud

Strong performance, powerful computing capabilities

- + ARM Cortex-A8 processor, 1 GHz main frequency
- + 1GB RAM and 8GB eMMC FLASH
- + Supports data acquisition from up to thousands of devices, computes and filters data on the edge, relieving pressure on the cloud

Extensive interfaces for multiple scenarios

- + 2*10/100Mbps Ethernet port
- + 1*RS232, 1*RS485
- + 1*USB
- + 4*DI, 4*DO, digital/pulse input and output (optional)
- + Wi-Fi (optional), GPS (optional), Bluetooth (optional)

Visual configuration, easy for mass deployment

- + Supports Web configuration, easy to use
- + Import/export supported by network configuration and data acquisition configuration, quick deployment
- + Remote access, bulk upgrade, bulk configuration, etc. via Device Manager
- + Remote access to field devices anytime anywhere via InConnect

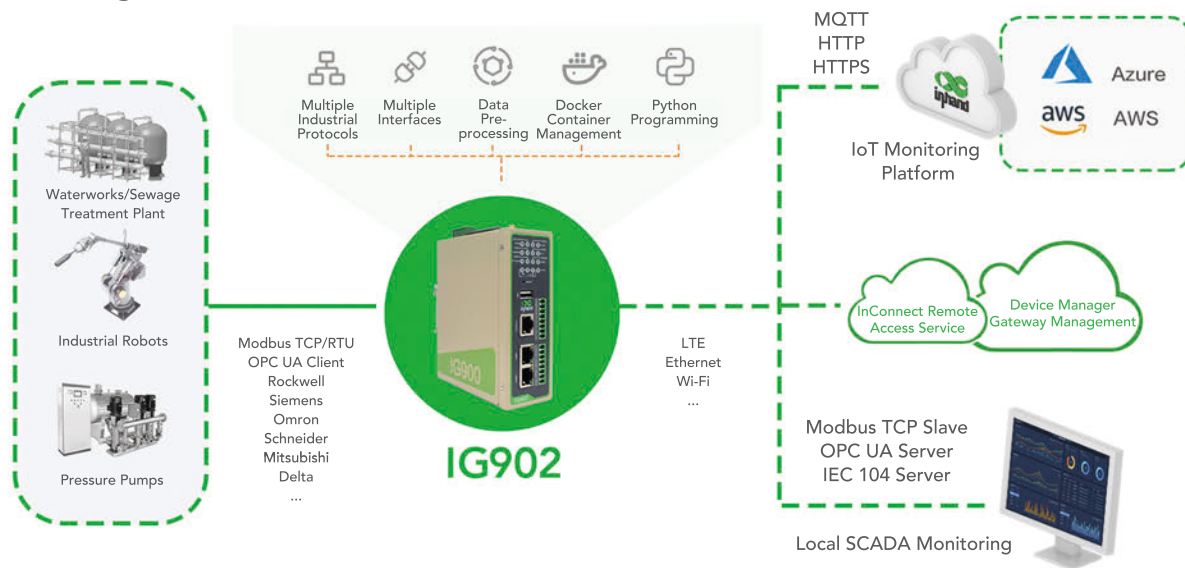
Built for developers

- + Supports Docker container management, seamless migration of business programs
- + Python programmable, custom features or services
- + Edge computing via AWS IoT Greengrass and Azure IoT Edge, seamless integration to clouds

High reliability, stable data transmission

- + Wired/wireless backup, dual SIM failover
- + Multi-level link detection mechanism, "always online"
- + Software and hardware Watchdog, auto-recovery from operation faults

Networking Scheme



Applications



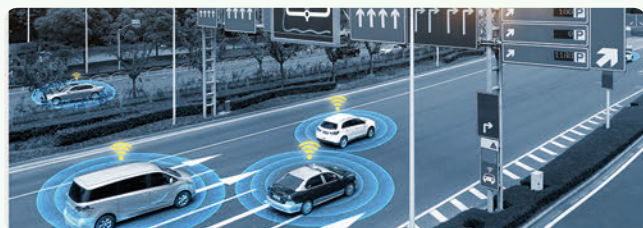
Smart Water Plant

With support for a variety of mainstream industrial protocols, the IG902 acquires and analyzes data from multiple devices in the plant. Strong performance enables the IG902 to collect data from thousands of devices, pre-process and filter data on the IoT edge, helping each production segment achieve comprehensive data acquisition and monitoring.



Robot Monitoring

The IG902 supports real-time data collection and analysis, and is able to process, respond to, and filter data on the edge. It can collect operational data from fast-moving robotic arms and quickly respond to abnormal events, ensuring reliable operation of the robots, reducing downtime and prolonging their service life.



Smart Traffic

Powerful edge computing capabilities of the IG902 enable it to respond to and analyze data on the edge. Being Python programmable, the IG902 can support custom functions like speed measurement on expressways and smart capture. It helps to cut down implementation costs of projects and improve the maintenance efficiency of equipment.



Secondary Water Supply

The IG902 helps build a unified IT system for secondary water supply in the community and manage everything from a central platform, ensuring water quality and security of water pressure and water supply, improving management efficiency and service quality of water supply companies.