Remote Monitoring of Air Compressors

Featuring powerful edge computing capabilities, support for multiple industrial protocols and IoT clouds, industrial design, the IG502 delivers a reliable remote monitoring solution for air compressors.

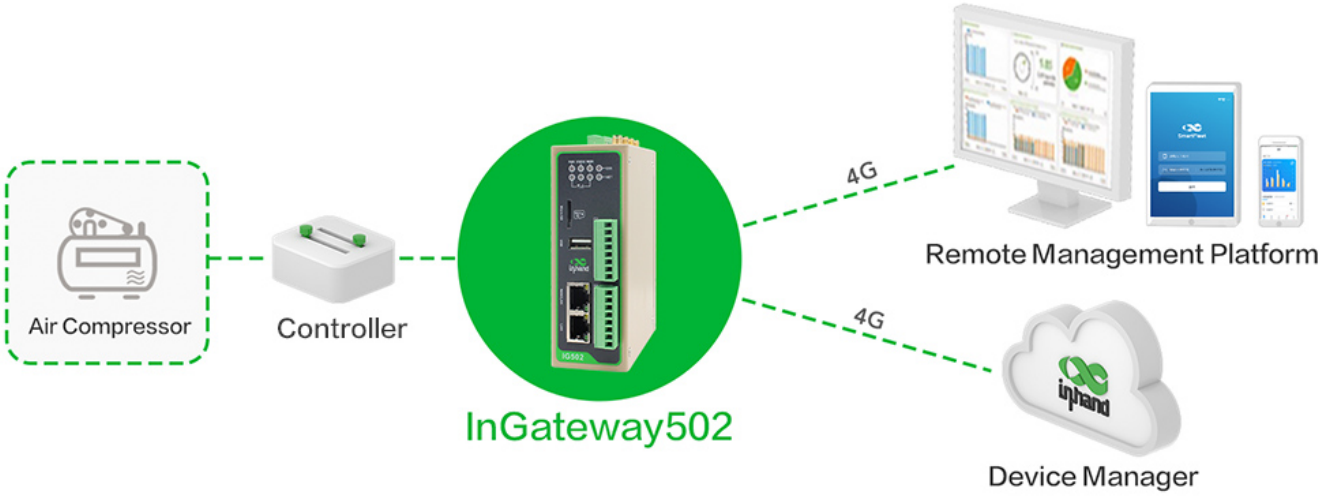
Background

As an important facilitator in industrial automation, the air compressor is widely used in various segments, such as aerospace, steel, non-ferrous metallurgy, ship manufacturing, textile, automobile, etc. Use of air compressors involves a lot of maintenance and troubleshooting. Traditionally, engineers patrol and check each machine at the customer?s site on a regular basis. This implies a number of risks, for instance, equipment may not be maintained promptly in case of a fault ? and downtime means huge losses. In addition, manual patrol and check also involves high costs; some hidden problems may not be identified in time and can thus become security hazards.

Large air compressor manufacturers generally install their machines at numerous different locations, with different models, systems or even communication protocols. How to gather data from thousands of remotely installed machines efficiently? How to practically acquire data from all of them which have different data tables or protocols? How to acquire data without disturbing the existing control system?

With regard to those issues, InHand Networks offers a "cloud + edge" remote monitoring solution for air compressors featuring its industrial-grade IoT edge gateway.

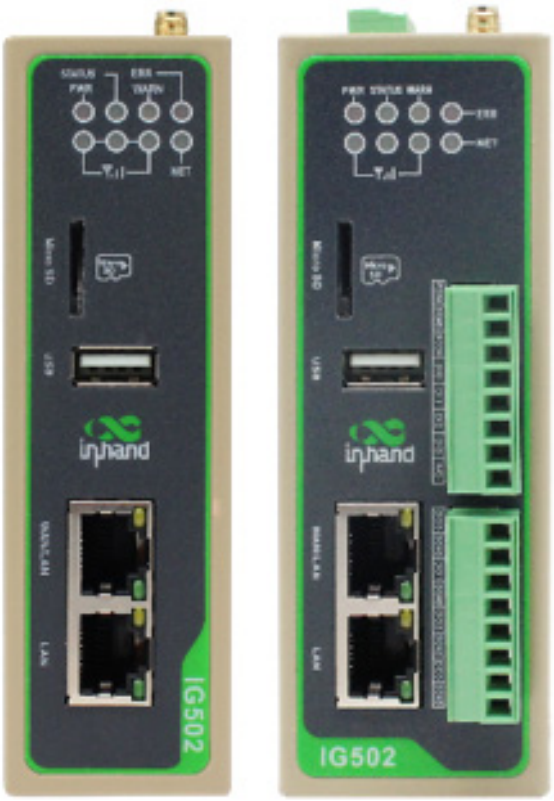
InHand's Remote Monitoring Solution for Air Compressors



Data from onsite controllers, including pressure, temperature, operation time, warning codes, fault codes, etc. are collected by the IG502. With intelligent algorithms, the gateway stores and analyzes data locally and sends processed data to the cloud, which saves bandwidth, relieves the work load on the cloud and also improves the quality of data. The IG502 gateway connects to the customer?s cloud platform through cellular networks. The gateway communicates to the cloud via HTTPS and MQTTS protocols.

The whole system can be accessed via web and mobile app at any time from anywhere. Users can view the operation status and fault alerts of the air compressors, configure, upgrade and debug the machines remotely. This increases the operation efficiency of the equipment, shortens troubleshooting, lowers costs for maintenance as well as communication between air compressor manufacturers and customers, improving services and business performance.

Why IG502?



- With support for multiple industrial protocols and major IoT clouds, the IG502 helps customers quickly build a "cloud + edge" solution for data collection and uploading;
- Featuring industrial design and multi-link redundancy, the IG502 works reliably under harsh industrial environments;
- With powerful edge computing capabilities and lower costs, the IG502 makes it easy for digital transformation;
- Python programmable, the IG502 enables users to customize their applications, so that data can be filtered, computed or analyzed on the IoT edge;
- Embedded with 8GB eMMC and Micro SD card, the IG502 enables data to be buffered locally when networking is unavailable, and resumes transmission when connectivity gets back;
- With worldwide certifications including CE, FCC, PTCRB, Verizon Wireless, AT&T, NBTC, etc., the IG502 works for the globe;
- The ?cloud + edge? solution enables connection to large quantities of devices, which means shorter debugging time, lower operation costs and increased performance for businesses.