# REMOTE MONITORING FOR OIL WELLS

• Background

Oil wells feature hazardous environments with potential risks of fire and/or explosion, and a lot of unmanned devices geographically spaced out. Making sure everything is in good conditions can be a big challenge for technicians with the move to remote control of industrial automation during these new, challenging times. Faults must be detected as soon as possible, as downtime means not only losses in revenue but also maintenance costs and human labor.

In order to reduce maintenance costs, save labor, and more efficiently manage various machines on site, a remote monitoring system is required to track the operation status of equipment, detect faults and conduct preventive maintenance.

• Solution

InHand Networks offers a solution for the oil wells featuring its **IR615-S** industrial LTE router and **InConnect** cloud service for remote access.
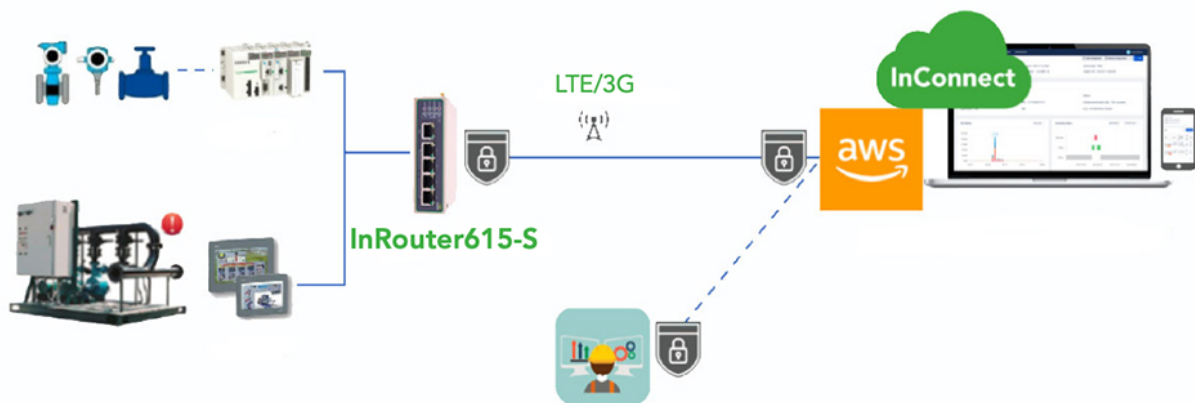

PLCs, HMIs and other smart devices around the oil wells are connected to the IR615-S via Ethernet ports. Data collected from the devices are then transmitted to the InConnect via cellular networks, so that engineers can access their devices anytime from anywhere. With the OpenVPN tunnel between the IR615-S and the InConnect, onsite data is encrypted during transmission, removing security concerns.

With the remote monitoring system, it is easy to conduct online test, variable tracking, maintenance and diagnostics, remote program uploading and downloading, data collection, etc.

● Advantages

● Reliable, secure and uninterrupted network access, available with LTE CAT6/4/1/M1, Wi-Fi and Ethernet

● Class I Division 2 certified, resilient in hazardous industrial environments

● 5 Ethernet ports, dual SIM, redundancy across carriers

● VPN tunnels protect data security

● FREE Device Manager for remote batch management

● All industrial design, EMC grade 3, one of the widest operating temperature range in the industry (-20 ~ 70℃)

● Cost-effective for networking
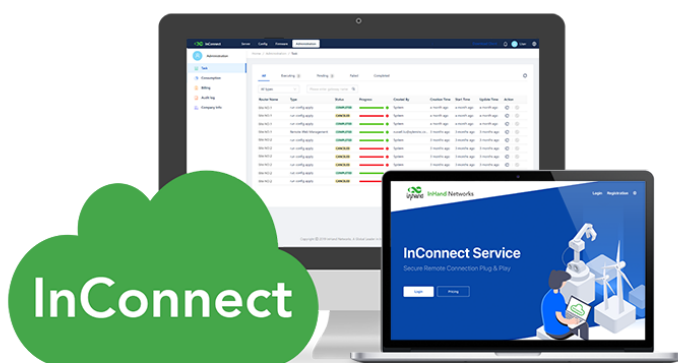
● Plug & play, no IT knowledge required for remote connection

● Advanced security, better data protection

● Remote access without travel, greatly reduces time, labor and cost

● Preventive maintenance before problems arise, relieved from downtime