

# The Machfu Industrial IoT Gateway



Simplifying and automating edge-to-HMI data communications in extreme industrial environments



Remote monitoring and automation that alerts to changing conditions at the well site in real time optimizes production and profitability. Machfu solutions help reduce unplanned downtime and costly site visits no matter the age of an oil well.

Oil and gas wells generate an ever increasing volume of data. Machfu's unique low-power industrial IoT Gateway is a completely integrated solution for edge-to-HMI automation that saves you time and money. The Machfu Gateway easily integrates with controllers speaking industrial protocols such as Modbus and translates collected data to enable remote operations from SCADA masters or cloud-based systems.

Machfu's proven solutions collect, process, and deliver reliable and accurate data from the field to ensure wells are online, productive, efficient, and operating in optimal working condition. Machfu reduces the need for field service and maintenance downtime by enabling remote services for operation and maintenance. Our solution is particularly suited for optimizing operations for low-production wells.

## Features

- Secure embedded application framework enables automation by running multiple apps on a single platform
- Simultaneously supports communications between multiple industrial devices and cloud-based head-end systems
- Multi-dimensional security features for connectivity, users, devices & applications
- Built-in protocol translation engine simplifies exchange of data
- Supports various connectivity options including Cellular, Wifi and BLE
- Fleet management of applications, firmware updates, security patches and template configurations

## Machfu's Oil & Gas Solutions Help:

### Increase | Optimize | Enhance | Maximize

Well resiliency • Operational visibility through remote monitoring  
Well head production • Compliance with environmental regulations  
ROI through lower Total Cost of Ownership (TCO)  
Best practices of modern security from physical layer to role-based access controls

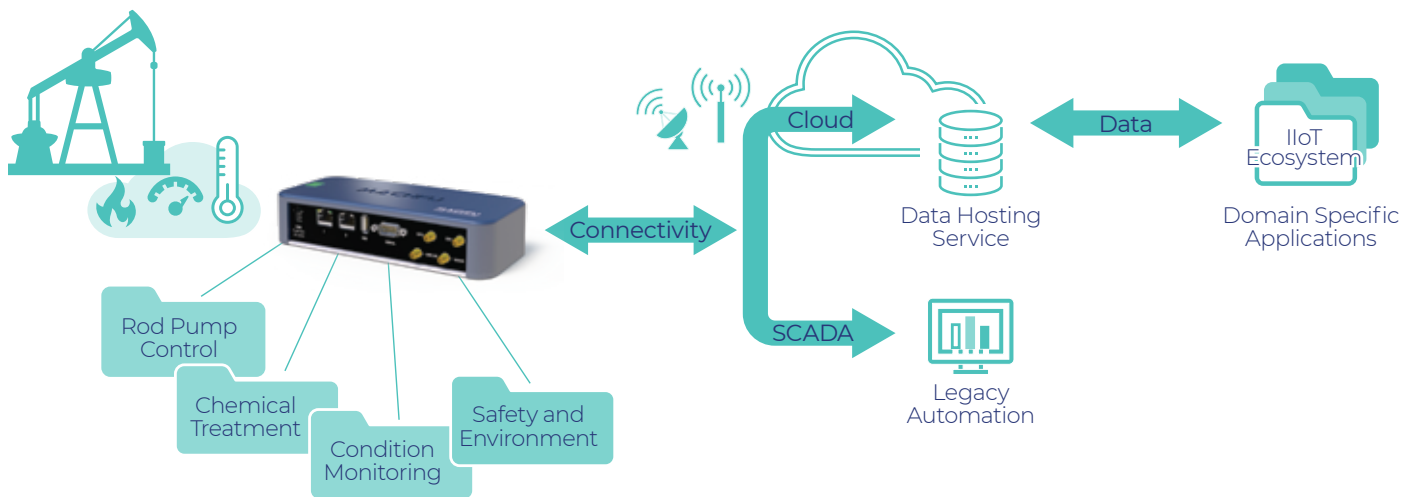
### Minimize | Reduce | Decrease

Equipment downtime  
Operational expenses  
Energy consumption  
Equipment failure

**Streamline data collection, sharing and analysis**

Take charge of your upstream and midstream operations and boost automation by offloading processing requirements and applying edge computing

## Rod Pump & ESP Automation



- ✓ Improve production rate through integration with pump hardware, instrumentation, and security
- ✓ Reduce downtime by protecting motors and mechanical components
- ✓ Optimize OPEX and address aging infrastructure through remote monitoring and web services
- ✓ Facilitate asset management and long-term planning to stay ahead of challenges

Machfu provides a range of options ranging from cost-effective, entry-level optimization to fully integrated turnkey solutions in customized enclosures. Leverage our 150+ years of proven experience to drive innovation and deliver connected products and enterprise-level solutions that serve as the foundation for smarter operation, increased safety, and optimized production.

Machfu Inc  
9200 Corporate Blvd, #470  
Rockville, MD 20850  
301-540-5372  
info@machfu.com  
www.machfu.com