

# MACHFU

# Machfu Industrial IoT Service

Automate collection, processing, and edge-to-HMI data communications for upstream Oil & Gas operations.



Machfu solutions help reduce unplanned downtime and costly site visits through remote monitoring and web services. Receive automatic alerts to changing conditions in the field to improve production, processes, and profitability.

The volume of data generated in the field from oil and gas wells is growing exponentially. In the past there may have been only a valve, one primary measurement device, and a wireless connection. Now there are multiple sensors for pressure, temperature, flow rates, tank levels, valve positions, and other sensors associated with safety and optimization. Machfu, with its unique low-power intelligent data collection and edge-compute platform, makes this wealth of information available to operators for remote monitoring and for production oversight by management.

Machfu's IO as a Service is a fully integrated, edge-to-HMI automation solution that saves you time and money. The Machfu Gateway along with the MachIO integrates with sensors at the site to securely collect, aggregate, and transmit data to the cloud. Our cloud-based end-user monitoring system adds advanced analytics, powerful configuration tools, and a human-centric interface to enable remote monitoring and visualization. Similar to your smartphone, the Machfu Gateway runs applications at the edge to process sensor data collected by MachIO, securely transmits data to the cloud, and enables remote operations from SCADA masters or cloud-based systems.

Machfu's field-proven solutions collect, process, and deliver reliable, accurate data from the field to ensure wells are online and run efficiently. It reduces field service and maintenance downtime by enabling remote diagnostic services for operation and maintenance. IO as a Service is particularly suited for low production oil and gas wells.

## Key Features

- Turnkey service with easy-to-use remote monitoring and visualization platform with interactive dashboards
- Connect any Analog, Pulse Count, or Contact Closure input sensors
- Supports collection from up to 50 sensors in the field
- Aggregates time series data generated from several endpoint devices and sensors
- Automatic alerts when set thresholds are exceeded
- CID2 rated for operating in hazardous environments
- Automatic software updates and security patches for all fielded devices
- Local provisioning through mobile app

Machfu's solutions for Oil & Gas markets help you:

### 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)

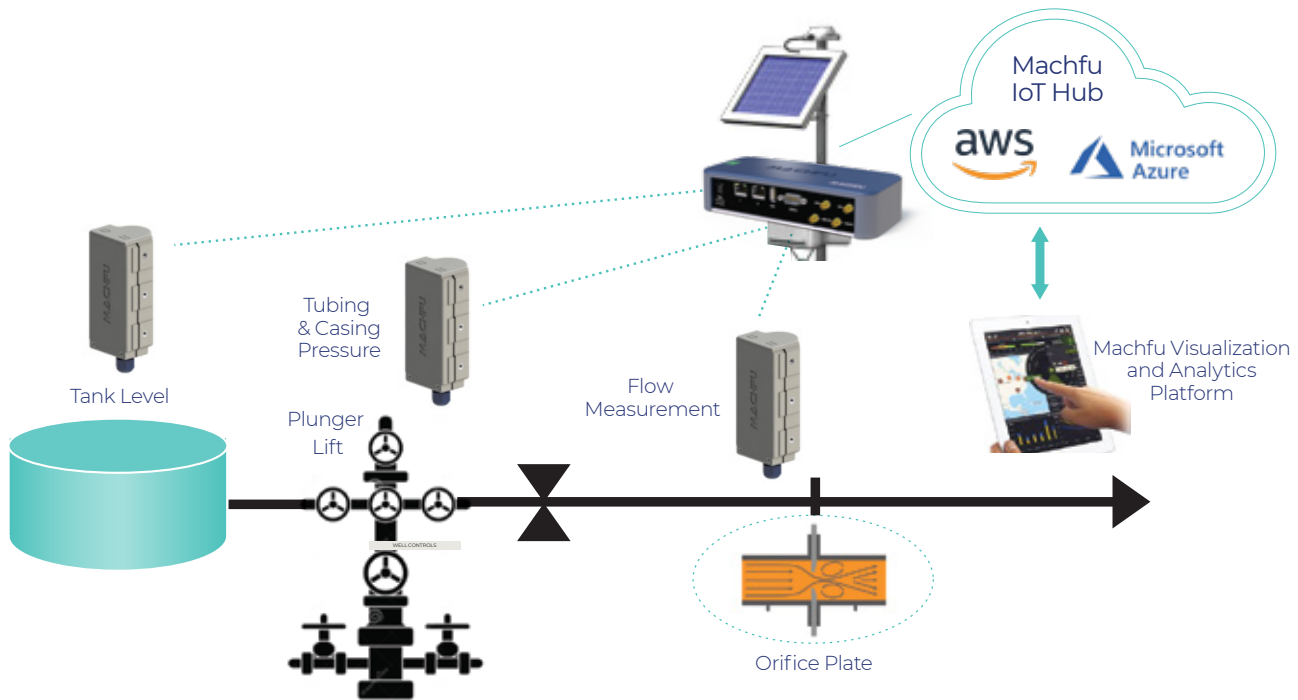
### Minimize | Reduce | Decrease

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 applying edge computing. Monitor your assets remotely with interactive visualization platform.

## Low Production Gas Well Automation



- ✓ Improve production rate and reduce downtime through integration with field sensors, pump hardware, and instrumentation.
- ✓ 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