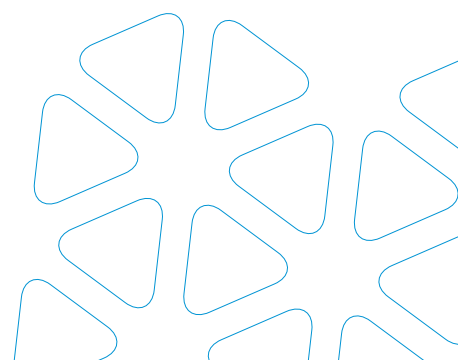# Fueling the Future with Data

**A STORY OF OWNING CHANGE**

Energy company optimizes operations to improve production efficiency and security.

# Owning Change in Energy

Our customer, a major oil and gas company, is transforming into a future-focused energy leader. Their mission? Achieve net zero carbon emissions by 2050. That means optimizing operations today to invest in tomorrow.

## THE CHALLENGE: INSTANT INSIGHTS
### Optimize Operations with Real-Time Data

Our energy customer wanted to take their operations to the next level and make space for the new. This required better visibility into the performance of their upstream, onshore well-site operations, from water balance and flaring to camera sensor data.

By improving their oil field surveillance and analytics, they would be able to better detect pressure anomalies, methane leaks, choke cutting and more. Moving from a pull to push model for everything from completions and recordings to gas analysis data, our customer could use this event-driven approach for real-time data and insights.

By maximizing the value of their field and third-party data, our customer would have the power to:

- Securely process data for operational decision-making

- Curate and blend operational data with business data in enterprise resource planning (ERP) system

- Send raw and enriched data to data cloud platform to support business intelligence reporting

Facing a high level of complexity with so many different data sources and types, our customer wanted to work with a team who could solution through infrastructure and data engineering. Enter TEKsystems.

## OUR SOLUTION: DRILL INTO THE DETAILS
### Automated Data Pipelines with Infrastructure as Code

We stepped on the gas and got to work. We connected with our customer's internal enterprise architects to understand their current data pipeline and third-party partners' environments. This helped us build out the high-level architecture and also inform data processing needs and recovery plans.

Starting with infrastructure as code (IaC) using Terraform and Terragrunt, we built modules to construct an automated data pipeline on their cloud platform. We wanted to ensure connectivity in the API layer between our customer and all their third-party partners for easier data consumption and seamless recovery.

We moved high-fidelity field data through their secure, centralized process control network (PCN) instance in the cloud and the accessible process information network environments. It was also critical that we help our customer balance data accessibility and security—a top priority in the oil and gas industry. To keep everything locked tight, we added a virus scan solution to review incoming data—even in system-to-system integrations.

All of this enabled us to:

- Support both ingress and egress data pipelines

- Centralize data between operations and analysis

- Integrate with internal applications and third-party systems

- Remain compliant with the organization's security posture

Secure from end to end, the real-time data pipelines effectively bring operations control, IoT and process data to the cloud and notify teams of events or hardware in need of maintenance. Hello, smooth operations.

**POWERFUL PARTNERSHIP: DATA FOR ALL**
Data Strategy to Empower End Users

Strategy is what separates short-term solutions from long-term growth. Once we made sure the data was being successfully captured, we worked with our customer to ensure they could use it. We worked side by side to develop a clear data strategy. Focusing on their end users and business needs, we created a foundation that could help inform decisions across the business.

Now our customer can manage an unlimited volume of data and make it available in near real time to everyone—from field and centralized operations to analysts and executives. Data-driven decisions, check. Increased collaboration, check. Business agility, check.

*"TEKsystems did a great job pivoting us and helping us build out our goal of becoming a near-real-time data streaming company by giving us more data freedom and business agility."*

– Lead Cloud Architect

## Real-World Results

By optimizing their data collection, our customer's site operators now have event-driven information to make proactive decisions that take them to the next level of operational and production efficiency while improving safety and reducing total cost of ownership. Their new, proactive posture helped them add longevity to their assets and reduce maintenance costs, as they used the data pipelines to prevent equipment failures—and environmental incidents—through monitoring and early detection.

Ready to reinvest in their net zero future, our customer can now focus their energy on climate-saving innovations that reduce methane and carbon emissions for a better tomorrow.

**$1M** estimated infrastructure cost savings

↓ Decreased time to dispatch third-party collection trucks through real-time readings of tank levels in field

↑ Increased safety and reliability

### About TEKsystems and TEKsystems Global Services

We're TEKsystems. We accelerate business transformation for our customers. We bring real-world expertise to solve complex technology, business and talent challenges—across the globe. We're a team of 80,000 strong, working with over 6,000 customers, including 80% of the Fortune 500 across North America, Europe and Asia, who partner with us for our scale, full-stack capabilities and speed. We're strategic thinkers, hands-on collaborators, helping customers capitalize on change. We're building tomorrow by delivering business outcomes and driving positive impacts in our global communities. TEKsystems is an Allegis Group company.

Learn more at **TEKsystems.com**.