

A Blueprint for Modernizing Wireline Technology at the Edge



Overview

Wireline technology services are critical within the oil and gas industry, and companies have spent decades developing expertise and invaluable intellectual property in this area. At the same time oil and gas companies are increasingly striving to maximize efficiency, reduce costs, and enhance safety – all while maintaining the highest environmental standards. Legacy systems, manual processes, and reliance on on-site expertise within traditional wireline solutions pose significant obstacles to achieving these goals. ZEDEDA provides a proven path for oil and gas leaders to overcome these challenges through targeted, customizable system modernization, leading to enhanced efficiency and operational optimization.

Key Challenges

Traditional wireline solutions depend on labor-intensive manual operations at remote sites. This leads to challenges like:

- **Labor-intensive data collection:** Manual processes require skilled technicians to travel to individual wells to collect data and then transport it to a well site for analysis
- **Delayed analysis of wellsite data:** Analysis does not begin until data is available centrally, leading to reporting delays of weeks or months that can impact performance, safety, and other factors.
- **Strain on technical resources:** Wireline technology solutions include a great deal of highly valuable intellectual property, and personnel must be up to date with the highly specialized well applications these solutions depend on.
- **Complex workflows:** Manual coordination of personnel, equipment, and adherence to regulatory protocols adds complexity and operational risk.



The Solution: Edge Orchestration for Oil and Gas

Edge management and orchestration addresses these obstacles by delivering cloud-based control and monitoring of edge devices and data to streamline operations and empower teams to make decisions centrally. Additionally, automation of wireline tasks enhances both efficiency and accuracy, minimizing the potential for human error. This solution also delivers the following essential components that drive drilling and wireline modernization, including:

- Flexibility to integrate with diverse hardware and software, ensuring compatibility and future adaptability
- Robust security and safety-first design workflows to protect critical data and operations
- Real-time data capture and remote analysis for rapid insight and decision-making
- Capacity to run both legacy and innovative applications to bridge the transition to more modern technologies
- Remote management platform to reduce on-site equipment and technical resource demands
- Adaptability to diverse connectivity scenarios (including air-gapped environments) for uninterrupted operations
- Customizable workflows support various scenarios such as disabling cloud communication when using explosives or remotely managing tasks in air-gapped environments, when applications need to be offline, or when internet connectivity is unavailable.

Expected Results

Powered by ZEDEDATA, this modernization strategy delivers tangible results that reshape and streamline oil and gas edge operations and enable companies to make faster, more-informed decisions that improve their bottom line. This includes a top two oil and gas services provider who reports a 95% reduction in data processing and reporting time. Additional key benefits include:

- **Faster reporting and decision-making:** Real-time data analysis enables near-instantaneous well characterization reports and enables timely decision-making
- **Enhanced performance:** Optimized edge workflows for well characterization increase overall performance metrics
- **Cost control:** Reduced labor and equipment requirements at the edge lowers operational costs.
- **Improved flexibility:** Customizable solution provides a more flexible approach to well characterization, adapting to different well sizes and needs
- **Safety and sustainability:** Automation and remote processes contribute to enhanced edge safety standards and reduced environmental impact.

The Path to Competitive Advantage

For oil and gas companies operating in an increasingly competitive market, embracing modernization at the edge is no longer optional. By adopting proven edge computing solutions to address inefficiencies, oil and gas and energy leaders can position their organizations for increased operational efficiency, optimized costs, and enhanced safety and environmental responsibility.



Ready to Unlock the Full Potential of Your Oil and Gas Business?

Discover how ZEDEDATA can transform your wireline technology business. Visit [ZEDEDATA.com](https://www.zededata.com) for more information.