



## Case Study: Enhancing Environmental Performance in Midstream Operations with eACM

### Overview

A midstream oil and gas company specializing in the transportation and storage of oil and gas products, faced significant environmental risks. With operations spread across vast areas, the company needed an advanced solution to monitor and manage potential leaks, spills, and emissions effectively. To address these challenges the midstream oil and gas company adopted AUTOSOL's **eACM (Edge AUTOSOL Communication Manager)**.

### Challenge

The midstream company was grappling with the high risks associated with leaks, spills, and emissions. The existing monitoring systems provided delayed data, which hindered the company's ability to respond swiftly to environmental hazards. Additionally, maintaining compliance with stringent HSE (Health, Safety, and Environmental) regulations required precise and continuous monitoring of environmental performance.

### Solution

To enhance its environmental performance and compliance, the midstream company integrated AUTOSOL's eACM into its operations. eACM offered continuous data collection and advanced analytics capabilities, crucial for detecting and mitigating potential hazards in real-time.

### Implementation

The implementation process involved several key steps:

- 1. Assessment and Strategy Development:** The company assessed its current monitoring infrastructure and developed a strategy to integrate eACM and industry leading edge devices at critical points along its transportation and storage network.
- 2. Integration:** eACM and edge devices were installed across the pipeline network and storage facilities, ensuring comprehensive coverage and data collection from all critical points.
- 3. Configuration and Calibration:** eACM was configured to continuously collect high-frequency data on various environmental parameters, including pressure, flow rates, and emissions levels.

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4. **Training and Support:** Staff were trained on the use of eACM and the interpretation of data, ensuring they could act on the insights provided by the system.

## Results

The adoption of eACM led to significant improvements in the company's environmental performance:

- **Continuous Monitoring and Early Detection:** eACM's ability to collect and analyze data in real-time allowed the company to detect leaks, spills, and emissions much earlier than before. Early detection enabled prompt action, significantly reducing the impact of potential environmental hazards.
- **Mitigation of Potential Hazards:** Utilizing the advanced analytics within their HMI, the company could predict and mitigate risks more effectively. Proactive maintenance and timely interventions became possible, reducing the likelihood of severe incidents.
- **Improved Compliance:** Continuous monitoring and accurate data collection ensured that the company maintained a strong track record of compliance with HSE regulations. The company could easily generate detailed reports for regulatory bodies, demonstrating adherence to environmental standards.
- **Enhanced Environmental Performance:** The overall environmental performance of the company saw a marked improvement. Reduced incidents of leaks and spills, along with better emissions control, contributed to a safer and more sustainable operation.

## Key Takeaway

By integrating AUTOSOL's eACM, the midstream company gained better control over its environmental performance through continuous data collection and advanced analytics. The result was a significant improvement in detecting and mitigating potential hazards, leading to enhanced compliance with HSE regulations and a stronger environmental track record.

## Conclusion

This study illustrates the profound impact of eACM on midstream oil and gas operations. The ability to continuously monitor and analyze environmental data in real-time not only improved the company's response to potential hazards but also reinforced its commitment to environmental sustainability and regulatory compliance. For midstream companies facing similar challenges, AUTOSOL's eACM provides a robust solution to enhance environmental performance and ensure operational safety.

