Data Modernization in Oil & Gas - Key Use Cases

According to recent trends, the Digital Transformation market in Oil & Gas is expected to grow at a steady 10% CAGR growth 2021-2026. This strong correlated reliance on blunt technologies to take important business decisions has the industry being pressured with how technology can make a difference here and how faster they can act on decisions.

Making Production Operation Efficient
Traditionally, a capital intensive, cool job was not one of the major concerns in the Oil & Gas. However, the recent trends of oil, the pressure is on every country to increase the efficiency of the industry. With the modernization and digitalization of the production facilities, the industry is in fast evolution. The modernization and digitalization have already transformed the industry, increasing efficiency and reducing costs. For example, a recent study by the USGS shows that the use of digital twin technology in the industry can increase efficiency by 20%. This technology allows the industry to visualize and optimize process in real-time, leading to improved efficiency and reduced costs.

Preventive Maintenance for Optimal Performance
Rigs, wells, motors, pipelines and major equipment in the entire production pathway depend on the data collected from various sensors. The data collected is then analyzed to identify potential issues and prevent major incidents. Preventive maintenance is a crucial aspect of oil and gas operations, ensuring that equipment is in optimal condition and reducing the risk of downtime. With the increasing importance of data and analytics, the industry is now leveraging these tools to improve efficiency and reduce costs.

Data Security
The recent rapid growth in the energy sector has led to significant increases in cybersecurity threats. Cyber-attacks are a constant threat to the industry, and the need for robust security measures is critical. The industry is now leveraging data analytics and machine learning to identify and prevent potential threats, ensuring the security of the critical infrastructure.

Modern Data Infrastructure to Navigate Uncertainties
Oil and Gas industry is known to have seen through many storms and has learned back numerous times. The focus seems to be that the industry is ready to deal with all of the challenges of the future. However, sustained growth driven by the focus on technology and resilience, strong infrastructure, secure architecture and scalable systems, are the key strategies that the industry is adopting. The industry is also investing in the development of its own data analytics tools, focusing on innovation and adaptation.

Data Modernization in Action - An Oil & Gas Case Study
Technology-driven transformation demands strong partners, well-versed with market dynamics, who can provide customized solutions. One such solution is Acurate, a partner that brings together a ecosystem of customers with strong capabilities and is the backbone of a disruptive future.

Acurate supports worked with one of the major Oil & Gas services provider in the US to help them to modernize their data systems.

The three databases of Oracle databases were modernized using Acurate’s Data Migration and PreUp (MDP) tool.

As a result, the client gained 40% reduction in cost, enhanced efficiency and risk profile systems with high availability and disaster recovery procedures.