

A photograph of an industrial facility, likely a refinery or chemical plant, at dusk. Several tall, cylindrical distillation columns are visible, illuminated from within, casting a warm glow. The sky is a mix of blue and orange, with some clouds. The foreground shows a complex network of pipes, walkways, and structural steel.

Enhanced safety and risk management ensured through modern data platform built for a Global Energy leader

Sonata helps improve the risk management efficiency by building a modern data platform to derive data insights within the safety ecosystem.



Customer Situation

Our Client is an American global energy company straddling manufacturing, Retailing & Power generation.

The Client's HES (Health & Safety Environment) department's prime focus was on ensuring safeguards are in place and effective, not just in preventing accidents, but also, mitigating any large scale fall out in the rare case of one happening.

The existing infrastructure did not support building a relationship between the safeguards, the events, equipments and the assurance activities.

The organization wanted to have a system in place that would enable creating the implied relationship between safeguards and incidents. This will help provide better insights into safeguard effectiveness and risk likelihood.

The insights gained from both viewpoints of effectiveness and likelihood would serve to help increase the overall confidence in risk exposure at a given facility. This will facilitate the appropriate focus to be placed on addressing the top risks identified in the risk profile.



Key Drivers

- No existing method to collate and link the safeguards information from various sources. This is being used to create and manage the data for risk profile, incidents, equipment, assurance activities
- Delayed actions on environment impact situations due to lack of time and consolidated view
- Storage of data from various energy monitoring devices fragmented across various systems over a legacy and fragmented landscape
- Manual and tedious consolidation of data resulted in business decisions being taken based on lapsed data



Solution

Sonata built a 'Safeguard System' based on a Mesh architecture that consumed data from the individual source systems and provided a single interface that enabled the user to create relationships between the safeguard & incidents, equipment and the assurance activities.

With the safeguard at the center of the system, the system would automatically connect the risk study with the incidents, equipment and the assurance activities.

The unified data platform facilitated automated data collection, cleaning, transformation and storage in a central Data Warehouse for future consumption by business groups and systems.

The platform developed leveraged the gamut of Microsoft Azure Stack capabilities including Azure Data Lake, Azure BLOB Storage, Azure SQL database, Azure Data Factory, Azure Data Bricks, Azure Cognitive Search that significantly contributed to a rise in the overall azure consumption.

Benefits

The unified and centralized modern data platform enabled orchestration of critical operational data with the health and safety environment group, resulting in significant operational and business efficiency

01

Improved responsiveness for environment impact challenges

02

Early and quicker detection of anomalies in the footprint and operational impact during energy monitoring

03

Quicker effective responses enabled through consolidated data view across systems enabling users to associate and differentiate a safeguard with one or more events, equipment and assurance activities

04

Effective safeguard management enabled by improved equipment traceability and searchability and risk profile mapping, powered by AI driven insights and algorithms





WHY SONATA?

Sonata helps clients unlock value and growth through Platforms with Sonata's proven Platformation services. We also help enterprises in shaping their Digital Agenda, Platform thinking and in reimagining Platform business models and ecosystem.

Sonata's Platformation™ approach helps clients to choose a solution that best fits their needs; balancing readily available platforms and solution customization

1. **Platform Assessment:** Platformation™ led value chain analysis for core upstream capabilities such as Wells (Drilling & Completion) & Surface Platforms by analyzing Platformation™ digital characteristics status based on Platformation™ maturity assessment framework
2. **Sonata READY:** End-to-end, industry-specific digital business platforms
3. **Sonata ACCELERATE:** Deploy popular horizontal platforms adding required functionality
4. **Sonata CUSTOM:** Engineer custom platforms that deliver unique digital capability and scalability

Sonata is a global technology company, that enables successful platform based digital transformation initiatives for enterprises, to create businesses that are connected, open, intelligent and scalable. Sonata's Platformation™ methodology brings together industry expertise, platform technology excellence, design thinking-led innovation and strategic engagement models to deliver sustained long term value to customers. A trusted partner of world leaders in the Retail, Manufacturing, Distribution, Travel, services and Software industries, Sonata's solution portfolio includes its own digital platforms such as Brick & Click Retail Platform®, Modern Distribution Platform®, Rezopia Digital Travel Platform®, Kartopia E-commerce Platform®, Halosys enterprise development automation Platform®, and CTRM Commodity trading and risk management Platform®, KODO - AI powered customer experience (CX) Platform, Sonata's Platformation realization services have been specifically designed so that implementation of services on Microsoft Dynamics 365, Microsoft Azure, AWS, Cloud Engineering, Managed Services as well as on new digital technologies like IoT, Artificial Intelligence, Machine Learning, Robotic Process Automation, Chatbots, Block Chain and Cyber Security, deliver to the Platformation promise. Sonata's people and systems are nurtured to bring together the depth of thought leadership, customer commitment and execution excellence to make a difference to business with technology.



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