Case Study

Digitizing Chemical & Petrochemical Plants Lessons from how we helped adoption of Industry 4.0 at scale for a Global Energy Company

Our Client is the only American Energy company to be included in the World Economic Forum Lighthouse Network for adopting Industry 4.0 at scale.
Business Challenges

- Long cycle times for business decisions.
- Limited visibility of real-time asset performance and associated accuracy of production reporting.
- Inability to identify production losses & foresee unplanned downtime.
- Inability to effectively utilize data for production optimization.

Solution Highlights

- Legacy equipment instrumentation for effective data capture.
- Creating an Asset Hierarchy for a connected ecosystem.
- Leveraging OSI Pi for data aggregation, visualizations & simulations.
- Digital Twins and AI/ML Algorithms for enabling Predictive Maintenance.
- Correlating OT data with Enterprise (Financial, Back-office) Data for decisions.

Bringning End to End Visibility in Operations

Integrated Collaboration Center

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Digitizing Plants globally by Interlinking Critical Operational Assets and Data with Enterprise Data for End-to-end Operations Visibility & Decision Making
Creation of ICC to provide centralized, integrated & real-time visibility, workflows & data-on-the-go across plants nationwide for optimized operations.

Real-time production surveillance & optimization, as well as correlation of operations data with contracts data to support operations decision making.

Availability of real-time high-quality data enabling modern maintenance paradigm – predictive & risk-based maintenance.

Remote monitoring of equipment health and performance minimizing the need for engineers to drive to assets to inspect them.

Meeting market demand at right price with cost optimization by linking real-time & modelled data to provide current & potential value of plant operation.
Business Benefits

We have successfully delivered $13M in margin improvement & an overall value of $50M+ Return on Investment

Some of the key KPI Improvements:

- **50%**
  Improved uptime, & reduced ad-hoc maintenance.

- **20%**
  Reduction in operating costs.

- **70%**
  Reduced field crew inspection miles & 28% lower repair visits.

- **12500**
  MMBTU Average Volume Gas wastage saved per month.

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