Predictive maintenance facilitates real-time tracking of the machine’s health and availability, thereby allowing optimum utilization of resources, increases equipment uptime, and availability by 10-20% and decreases material costs by 5-10%. Our solution for a global leader in the oil and gas industry generated ~USD 20M in annual savings.

Maintenance challenges faced

- **Reactive methods**
  The traditional ways of maintaining machines involve unplanned repairs leading to unforeseen costs.

- **Unoptimized Use of Resources**
  With traditional maintenance methods, managing spares & resources optimally is difficult.

- **Huge Manual Effort**
  Perpetual manual intervention is required for monitoring the processes.

- **Delayed breakdown reports**
  Defects in the machine go unnoticed until they cause breakdowns.

Predictive Maintenance applies to various industries

- **Hydraulic Press, Shot Blasters, Welding Bots, Packers**
- **Engines, Gensets, Turbines, Compressors**
- **Tractors, Harvesters, Sprayers, Forklifts, Cranes, Elevators**
- **Mixers, Boilers, Fermenters, Washers, Coolers, Ovens**
- **Millers, Grinders, Drills, Lathe**
- **Oil, Gas, Energy & Utilities**
- **Mining & Construction**
- **Automotives**
- **Manufacturing**
Our Predictive Maintenance Platform

Machine Learning Predictive Capability
Identify anomalous machine parameters (vibrations, noise) to identify forthcoming failures and reduce unplanned downtime.

Security and Scalability
Supports SSO authentication, and gives the ability to limit user access rights and editing privileges at a granular level.

Real Time Monitoring
Track and monitor machine process parameters in real time. Capture machine availability and performance automatically.

Interactive Dashboard
Managers can track, analyze and diagnose the performance of the plant and set alerts for maintenance.

POC Package

Approach

Requirements Finalization
Cloud Foundations
Ingestion & Preprocessing
ML Model Training
Publish
Consume

OUTCOMES
- Personnel & Repair Cost Savings
- Reduced Down Time & Mitigated
- Improved OEE
- High Performance Accuracy

DELIVERABLES
- Terraform Deployment
- Robust & Scalable GCP Solution for Predictive Maintenance
- Monitoring Dashboards in Looker & PI Vision

TIMELINE (POC)
8 weeks
Single subsystem, single model, limited # of dashboards

Quantriphi is an award-winning AI-first digital transformation engineering company driven by the desire to solve transformational problems at the heart of business. Quantriphi solves the toughest and complex business problems by combining deep industry experience, disciplined cloud and data engineering practices, and cutting-edge artificial intelligence research to achieve quantifiable business impact at unprecedented speed.

We are passionate about our customers and obsessed with problem-solving to make products smarter, customer experiences frictionless, processes autonomous and businesses safer by detecting risks, threats and anomalies. For more on Quantriphi’s capabilities, visit www.quantiphi.com

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