



Case study

Equipment Health Monitoring Solution and **Predictive Maintenance Improves Asset Utilization** for a Global Construction Conglomerate



Client

The client is an India-based multinational engineering and construction company that caters to all core sector industries and infrastructure projects with capabilities spanning the entire gamut of construction, including civil, mechanical, electrical, and instrumentation engineering.



Challenges

- ▶ High instances of unplanned equipment downtimes, resulting in project execution delays.
- ▶ Sub-optimal utilization of assets, leading to reduced OEE.
- ▶ No real-time insights on vehicle reliability to take corrective actions for asset performance maximization.



LTIMindtree Solution

- ▶ Sensorized the entire fleet of 35,000+ assets leveraging ThingWorx platform, enabling collection of real-time equipment parameters such as oil pressure, fuel levels, and fuel consumption to proactively take corrective actions.
- ▶ Enabled real-time visibility of idle assets for sub-contractors and optimal asset utilization through seamless asset requests and allocation through a mobile application.
- ▶ Devised condition-based health monitoring system to monitor critical asset parameters.
- ▶ Deployed Mosaic Things on Azure to statistically predict breakdowns through analysis of utilization levels and performance parameters over time.
- ▶ Developed real-time dashboards to monitor equipment utilization, availability and performance — persona-specific views for engineers, service engineers, dealers, and service stations.



Business Benefits

10-12%

improvement in asset utilization through real-time tracking.

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