The client is one of the largest engineering, procurement and construction (EPC) companies in the world, with a sizeable construction equipment fleet comprising more than 11,000 assets.

The client wanted to gain insights about its assets to drive informed business decisions and improve the bottom line.

The client wanted to increase its fleet’s productivity, reduce equipment downtime, improve capacity utilization and cut fuel costs. However, it lacked predictive and prescriptive analytics tools to turn raw data from each asset into actionable insights about the entire fleet. None of the assets were connected, which prohibited the aggregation of all the asset data into one platform. The client needed to:

- Gain visibility into the entire fleet to gauge performance and capacity utilization data
- Use data to right size the fleet and optimize fuel spend
- Decode the complexity of instrumenting 11,000+ assets—with 400+ makes and models and 40 different types
- Ensure that data from multiple systems and OEMs was aggregated into a single platform
- Maintain its assets
Solution

To overcome these challenges, sensors were fitted on all the client’s assets to capture data from the engine and other auxiliary systems—gauging vibration, temperature, fuel level, etc. A rugged internet of things (IoT) gateway was implemented with edge analytics capabilities to compute various KPIs based on the acquired parameters. The Insights NxT platform provided an intuitive and user-friendly interface to quickly onboard the assets across 100+ projects and manage various projects on a unified map view, thereby providing business users complete visibility of their entire operations. The powerful data management and cataloging capabilities enabled information availability in just a few clicks.

Benefits

The client leveraged the data to implement widescale improvements to its fleet. The powerful analytical capabilities of the Insight NxT platform helped glean intuitive insights that enabled the client to achieve multiple benefits, including:

- **30-35%** improvement in capacity utilization
- **20-25%** reduction in fuel consumption
- **15-20%** reduction in equipment idle time
- **10-15%** improvement in asset productivity