



**Genpact worked with a leading aircraft engine manufacturer to transform its Fleet Management operations. Genpact's "lean digital" approach integrated insights from asset data into reimaged operations to make them predictive and proactive.**



## WHY GENPACT?

- Genpact possesses strong capabilities of reimaging the operations of a company by integrating engineering and analytics expertise and extending digital's power all the way through the middle and back office, and generate growth, improve cost efficiency and business agility
- Genpact's unique Lean Digital approach combining digital technologies, design thinking, and Lean management principles combined with core engineering product knowledge and analytics capabilities helps large enterprises with complex, often dated pre-existing operations drive real, value-generating transformation faster



## CHALLENGES

- Rapid growth in installed base stretched fleet support operations' capacity to its limits
- Exponential growth in volume of data, but limited insight due to noise caused by poor data quality, fragmentation of data and lack of scalable analytics
- Loss of revenues and poor customer experience due to the inability to leverage asset data to predict engine/parts failures and act proactively to schedule timely preventive maintenance, maintain optimal inventory levels for critical spares and alert airlines on engine performance issues
- Expensive and time consuming manual effort in filtering out relevant alerts for customer notification



## SOLUTION

- A operating model that enabled **data-to-insight** and **insight-to-action** at scale with process re-design, effective automation and global delivery
- An outcome focused approach that worked across silos to streamline processes, map relevant data and its sources to target technology interventions in an agile way
- Leveraged advanced industrial internet platforms (Predix from GE) to capture and analyze asset monitoring data
- Forecasting models integrated multiple operating parameters to predict part failure and remaining useful life of critical parts
- Machine learning algorithms replace manual effort to screen false alerts
- Integrated feedback loop to product design teams, providing real time part performance and failure analytics to make design changes



## BENEFITS

- **Lower cost of maintenance**, and **higher asset uptimes** (time on wing) through accurate parts failure and remaining life forecasts, preemptive maintenance, fewer unscheduled maintenance events and optimal spare availability resulting in higher revenue and profits
- **Cut cost of fleet support operations by 40%** through a combination of redesigned processes, automation and global delivery. **Scalable** solution capable of **supporting growth** in fleet cost effectively.
- **Satisfied customers** with on-time and safer flight operations with proactive alerts to airlines on engine performance
- **More competitive products** with insights for product enhancements, engineering tooling and design for manufacturability