

# POWERING THE FUTURE OF FLIGHT: SUSTAINABLE, EFFICIENT, AND SAFER AERO



## OVERVIEW

Aero engine OEMs have grown more complex to meet advanced design needs and evolving customer demands. Engines need to deliver peak performance and controlled maintenance with low noise, low emissions, and high fuel efficiency.

We support turbine engine OEMs in overcoming these challenges with innovative technology solutions across the design and ownership of actions, rotors, stators, cases, thermal and lube systems, dynamic loads, and propulsion systems. Integrating digital transformation, we enhance aero engine solutions with data-driven reliability control, predictive maintenance, and quality notification resolution.

**35+ Mn**Hrs of Eng.  
Delivered**25+ Yrs**of  
Experience**60+**Co-Patents  
Filed**250+**Design Concepts  
Delivered

### Engagement Areas

**Fans** – Blades, hub, shaft, case

**Combustors** – Fuel nozzles, diffuser, turbine exhaust case

**Compressors & turbines** – Cases & frames, rotors & shafts, vanes & blades

**Externals** – Fan drive gear systems, bearing compartments and transmissions

**Systems** – Performance, Operability, Loads, Rotor dynamics, Aero/thermal CFD

**Nacelles** – Inlet/fan cowl, Thrust reverser, exhaust & nozzle

### Service Offering

Design and analysis  
Verification & Validation

Repair development Engg &  
Technical Publications

Automation & Engineering tool development.  
PLM/MBSE customization capabilities

Manufacturing engineering &  
Additive Manufacturing

MRO/ Reliability & Safety

Engine Health Monitoring &  
Certification support

## THE CYIENT SOLUTION



### Experience

**50%+** engineers with proficiency level C&D in Aero Engines



### Productivity Focus

Established Innovation and productivity through workflow automation.



### Solutions Mindset

Engineering Changes, MRB Value stream, Integrated PLM/MBSE customization, Software V&V



### Trusted Partnerships

Risk-revenue sharing business model for Part Cost reduction



### Capacity

High flexibility in progressive ramp up and ramp down. Robust Discipline health review and framework to nurture competency.



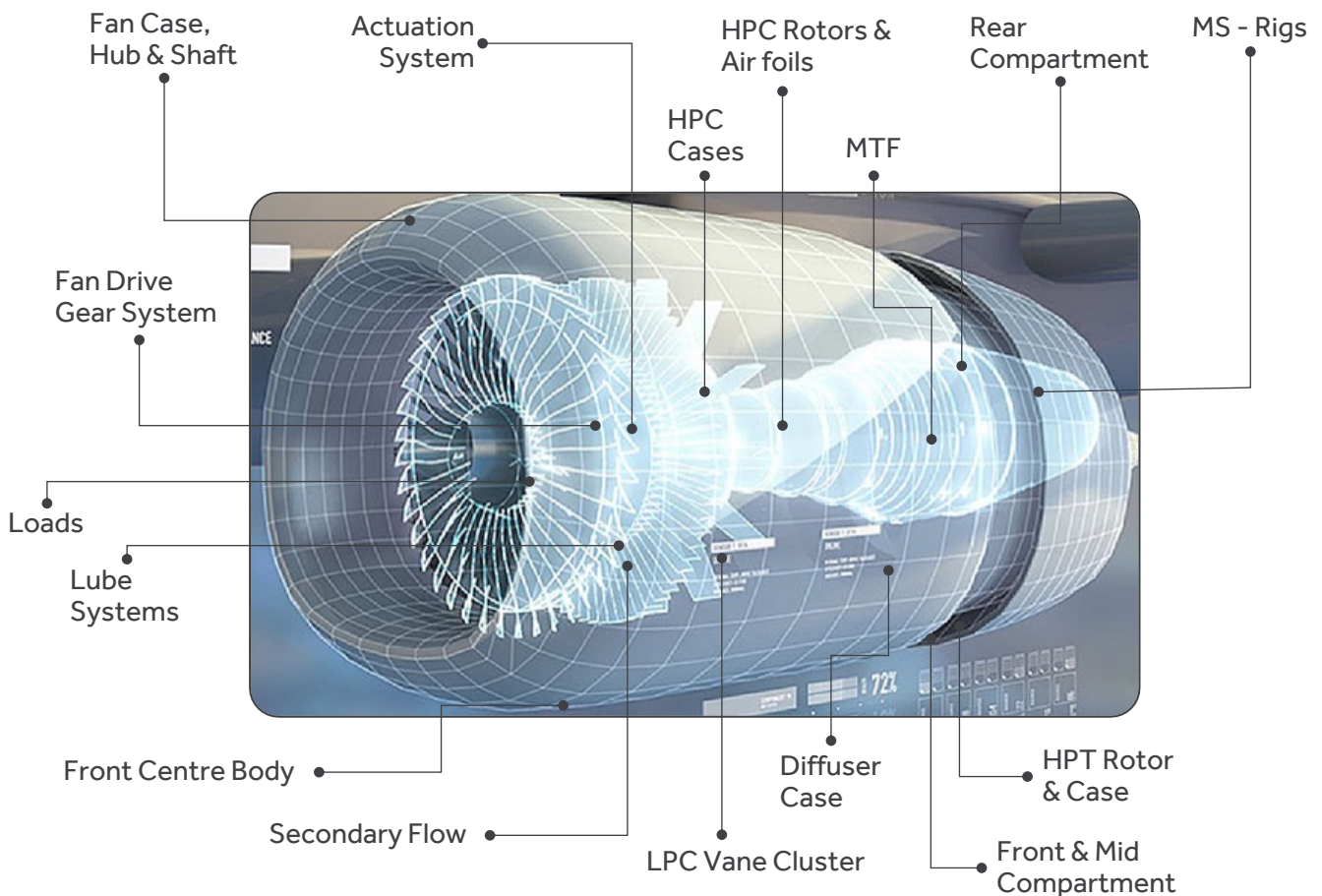
### Digital Solutions

Agile framework, MBSE, RPA & Python, Digital thread implementation  
NC Disposition, Field Event Management to track the engine reliability



### Process Innovation

Continuous improvement is showcased through ACE. Engineering Standard Work Improvements/ Creation



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