

Aftermarket Redefined:

Intelligent Support for Connected Fleet



Purposeful. Agile. Innovation.

STATE OF THE MARKET

With the global aerospace sector navigating increased pressures across the demand for enhanced cost efficiency, sustainability, and uptime assurance, the aftermarket segment too is rapidly evolving. Airlines and OEMs are reimagining support ecosystems to:



Extend aircraft lifecycle while reducing total cost of ownership,



Digitize maintenance operations with real-time insights, predictive diagnostics, and performance monitoring,



Address rising challenges in cabin modernization, obsolescence management, and MRO regulatory compliance, and



Enhance workforce readiness through immersive training tools and digital knowledge platforms.

This shift has opened new frontiers in data-driven MROs, connected maintenance ecosystems, and intelligent engineering interventions.



SERVICE OVERVIEW

L&T Technology Services (LTTS) delivers a full-spectrum aftermarket portfolio designed to enhance performance, reduce cost, and enable proactive support across aircraft platforms:



Repair and Maintenance Engineering

- Design and revision of repair procedures and schemes, generation of Repair Engineering Orders (REOs), packaging optimization, PO processing systems, maintainability assessments, and vision-enabled inspection automation for faster turnaround.



Technical Publications and Content Management

- Development and digital transformation of Aircraft Maintenance Manuals (AMM), Wiring Diagrams, Service Bulletins, IPCs, and IETMs, and
- Platform integration with CMS and LMS for real-time technical content delivery.



Customer and Field Support Services

- Computer-based training (CBT) modules, AR/VR-based instructional tools, in-service engineering, field diagnostics, and fault isolation analysis to minimize operational disruptions.



Cabin and Aircraft Upgrades

- Retrofit and upgrade engineering for interiors — covering sidewall panels, galleys, bassinet mounts, racks, dividers, and customized configurations aligned with regulatory and branding needs.



Repair and Sustenance Engineering

- Services for Supplemental Type Certificates (STC), PMA engineering, component lifecycle analysis, obsolescence mitigation, value engineering, and design optimization.



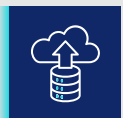
Digital Accelerators

- Predictive maintenance solutions, asset tracking, energy management tools, condition-based health monitoring, failure prediction for LRUs, and custom-built analytics engines.



KEY DIFFERENTIATORS

LTTS' key differentiators in the domain include:



Skywise-Certified Partner for Digital MRO

LTTS' end-to-end integration with Airbus' Skywise platform enables it to deliver data-backed solutions for maintenance control, health monitoring, parts tracking, and fleet analytics. Skywise modules supported include Maintenance Control Center, Component Life History, MRO Spares Availability, Fleet and Fuel Optimization, Aircraft Weight and Cabin Health Dashboards, and Crew App Analytics.



Digital-First MRO Enablement

Integration of real-time service data, field service planning, and machine learning models into MRO workflows using the "Evergreen Field Services Twin" concepts.



Proven Global Track Record

Delivery of aftermarket engineering and digital services for rotary, fixed, military, and UAV platforms, backed by 250+ certified SMEs and compliance with international aviation standards (ATA/iSpec2200/S1000D/SCORM/ISO).



AI-Powered Tools & Frameworks

Use of AiKno® platform for predictive analytics, visualization, intelligent document processing, robotic automation, and cognitive diagnostics – enhancing operational efficiency and decision-making.



Lifecycle-Integrated Support

Single-partner capability for content development, sustainment engineering, sourcing, repair, field operations, and training – reducing vendor fragmentation and enabling seamless execution.



Sustainability-Focused Engineering

Adoption of green sourcing strategies, energy management tools, and design-to-cost/value practices to align with decarbonization and eco-compliance goals of the aviation sector.

BENEFITS

Accelerated Maintenance Turnaround:

Up to 30% reduction in repair cycle time leveraging automation, predictive diagnostics, and optimized engineering workflows.

Lower Total Cost of Ownership (TCO):

Cost savings of up to 20–25% across obsolescence mitigation, alternate sourcing, value analysis, and lean repair strategies.

Enhanced Fleet Availability:

Condition-based monitoring and predictive tools minimize unscheduled maintenance, improving aircraft dispatch reliability and operational uptime.

Faster Regulatory Compliance:

Streamlined documentation, CMS integrations, and standards-compliant digital manuals to accelerate certification and reduce audit risk.

Skilled Workforce Readiness:

Immersive e-learning modules and shop floor-ready instructions to help rapidly onboard, upskill, and support engineers across geographies.

BUSINESS CASES



Aircraft Maintenance Manual Development

- Created and revised ATA-compliant AMMs (ATA 25, 29, 33, 50) using Arbortext, GPX, Adobe Illustrator, and CMS publishing tools.
- Reduced documentation cycle time and ensured regulatory compliance across multiple aircraft programs.



Titanium Structural Repair Engineering

- Delivered customized repair solution for delaminated aircraft titanium part with CFRP skin integration, fastener addition, and stress analysis reports (CJS).
- Enabled aircraft OEM to validate complex field repairs quickly and ensure compliance with safety-critical standards.



Cabin Retrofit & Upgrade Engineering

- Designed retrofit packages including LOPA drawings and structural changes across galleys, side panels, closets, and dividers for long-range aircraft.
- Helped airline modernize cabin interiors for improved passenger experience while ensuring STC readiness.



Interactive E-Learning Module for Maintenance Engineers

- Built AR/VR-powered English training modules using Adobe Flash, 3Ds Max, and Premier Pro with voice-over integration.
- Enabled rapid upskilling of maintenance teams across client locations, enhancing operational readiness and safety compliance.



L&T Technology Services

ENGINEERING **THE CHANGE**