



Test Engineering Transformation drives **\$7M** cost savings for leading US Airline

Mindtree's work with a leading US-based airline accelerated their speed to market by more than 20%.

This helped them realize significant cost savings of \$7Mn+ within 18 months while maintaining an extremely high-quality standard.

The Customer

Our customer is a leading US-based airline operating flights to over 100 global destinations.

The Opportunity

Continuing years of travel industry leadership required continuous modernization plus support of large and complex portfolio of business-critical applications at the airline. The portfolio represented a diverse spectrum of commercial and operational business functions including direct and indirect sales channels, network planning, Revenue Management, customer management, crew, aircraft and ground operations.

The test certification for all applications across the enterprise is controlled by the airline's centralized test organization. This organization is responsible for validation of all business & technical requirements required to deliver services to its customers and internal stakeholders. They form the critical quality gate before an application gets into the hands of the end user, whether that be internal (crew or operations) or external (passengers or partners).

With multiple vendors managing application testing operations, the test organization faced problems in terms of quality control, schedule slippages and single point of accountability. Each vendor followed its own process for testing with varying quality metrics and hence the customer decided to consolidate the vendor ecosystem.

Their objective of speeding up their 'Go to Market' via vendor consolidation had the primary motive of bringing in governance and ease of management.

In addition to speed to market, automation had become an imperative for the test organization. Through automation, they could deliver much more value to the larger IT ecosystem by enhancing speed of testing and optimising costs. Some other issues which needed to be addressed were:

- Significant manual processes and "test overhead"
- Lack of collaboration between, solution architects, testing and business stakeholders
- Insufficient Non-Functional Requirement (NFR) analysis
- High cost of testing operations

Mindtree's Approach:

Mindtree manages testing for a lot of mission critical applications like aircraft maintenance, crew, commercial etc. at this airline. The whole process of someone buying a ticket to getting checked in to ensuring the crew is scheduled to operate - software testing of this entire value chain is managed by Mindtree. When the airline approached Mindtree with the above-mentioned problem statement, we introduced the concept of 'quality engineering transformation' to address their issues around quality, speed and cost. Our approach relied heavily on the adoption of a Quality Engineering model and embarking on a total software testing transformation journey. The solution levers included bringing in a transition plan with front loading, KPI/SLA based delivery, right shoring & role consolidation, creation of an Automation Factory, implementation of LEAN initiatives and industry best practices.

Highlights of Solution:

- Built a centralized automation factory that focused on implementing automation at an enterprise level resulting in an **increase of automation coverage from 30% to 82%**
- Introduced service virtualization and performance engineering into operations tracks resulting in **cost benefits of up to \$200,000**
- Developed a 24 X 7 online dashboard that monitors the quality of each release enabling informed decision making
- Leveraged Mindtree's Knowledge Management platform, YORBIT -- to enable the ramp up of 130+ test engineers (vs manual testers) in two months (and complete transition in 9 weeks)

Business Outcomes

- **Savings:** Enabled **\$7 million** plus in savings by bringing in test automation, right shoring and program efficiencies
- **Speed to Market:** Accelerated time to market by **20%**
- **Transition speed & efficiency:** Completed transition in 9 weeks, thus enabling a rapid vendor consolidation without any disruption to existing business