



Mindtree

A Larsen & Toubro Group Company



Test Engineering Strategy Revamp drives cost savings for a leading airline

Mindtree worked with a leading airline and helped them achieve cost efficiency, leading to a lot of savings in 15 months. We were their specialized test partner in performance, automation and test data services, driving enterprise transformations.

The Customer

Our customer is a leading airline operating globally, offering several services to diverse destinations, serving an extensive domestic and international network across six continents.

The Opportunity

The portfolio represents a diverse spectrum of commercial and operational business functions with over **400** applications including sales channels, online and kiosk check-in, revenue management, loyalty, tech ops, flight operations, including IROPS, crew management and airport customer service.

The airline needed a strategic partner with transformational capabilities in setting up a scalable operating model, driving enterprise test automation and resource optimization. The objective was mainly to help them deliver with speed, optimized cost and better quality. There was an initial set of challenges to be overcome:

- High cost of testing operations
- Transition responsibilities from over **45** positions with minimal business interruptions across **80+** applications
- Lack of strategy for automation testing which resulted in automation coverage (**-8-10%**) for key applications
- Lack of tool and framework standardization
- Lack of industry standard test processes and SLAs
- Inconvenient test data sourcing
- Unavailability of skills to deliver testing across a wide range of technology stacks

Mindtree's Approach

Our expertise in quality engineering transformations with multiple airlines helped us make a smooth transition with minimal or no business interruption, while managing risks including non-cooperation of the incumbent vendor. Our transition approach included:

- Staggered transition in three waves with core team including architects and leads driving transition
- Overlapping with the incumbent vendor's time to maximize their availability
- Setting up the knowledge management platform to record all knowledge transfer sessions
- Highlighting issues/risks early to the customer's transition management office to resolve any roadblocks

In parallel with the transition, Mindtree carried out enterprise assessments/consulting in the areas of automation and performance engineering, and provided early recommendations. As part of this, Mindtree developed a technology/ tool-agnostic framework called the Unified Automation Framework, which includes automation factory.

Highlights of Solution

- Focused on high critical applications for the first wave of transition to minimize vendor dependency and mitigate early vendor attrition
- Mindtree's expertise and experience working with multiple airlines helped us understand the customers' landscape and bring out strategy that defined standards, metrics etc. aligned to customers work and technical culture
- Developed a **"Unified Automation Framework"**, which was scaled to support multiple technologies
- Delivered test automation services across **40+** applications through a test engineering platform that supported parallel executions
- Implemented mobile automation with Cloud parallel distributed execution, resulting in reduction of manual effort by **~30%**
- Test data generation was automated for repeated scenarios and reduced the overall effort by **30-35%**
- Established continuous Integration using Jenkins for different portfolio applications like tech ops, revenue management, and airport customer service

- Migrated scripts from commercial tools to open source technologies under Enterprise Unified Framework (around 30+ applications) – saved license cost of 100+ K USD
- Automation regression suite coverage for machine/business critical applications (100+ applications) increased to over **80%** from the initial **8-10%** coverage
- Spearheaded an enterprise IT operating model transformation for the customer's QA organization that enabled seamless delivery and drove test engineering transformations across the organization
- Automation of **~300** applications for functional health check, sanity and regression priority test cases accelerated BVT across environments including production
- Leveraged Mindtree's knowledge management platform, YORBIT, to enable ramping up of **100+** test engineers (vs manual testers) in two months



Outcomes

- Completed transition in **9** weeks, thus enabling a rapid vendor consolidation without any disruption to existing business with **0%** schedule overrun
- Overall **~\$1.56 M** of savings over **15** months through transformation
- Estimated **\$3.5M** TCO reduction in **3** years using automation and other optimization levers
- Estimated overall **36.5%** efficiency gains on transformation engineering & **15%** on right shoring optimized on/off in **3** years
- Saved over **\$100,000** moving from commercial to open source tools
- Regression Automation of **100+** Key Applications with a coverage of **85%** resulted in effort savings of **30%**

ABOUT MINDTREE

Mindtree [NSE: MINDTREE] is a global technology consulting and services company, helping enterprises marry scale with agility to achieve competitive advantage. "Born digital," in 1999 and now a Larsen & Toubro Group Company, Mindtree applies its deep domain knowledge to 350+ enterprise client engagements to break down silos, make sense of digital complexity and bring new initiatives to market faster. We enable IT to move at the speed of business, leveraging emerging technologies and the efficiencies of Continuous Delivery to spur business innovation. Operating in more than 15 countries across the world, we're consistently regarded as one of the best places to work, embodied every day by our winning culture made up of 21,000 entrepreneurial, collaborative and dedicated "Mindtree Minds."