



Strategic quality consulting to build a modern airfreight sales booking platform at Lufthansa Cargo



Client Overview

Lufthansa Cargo is a large European cargo airline and one of the world's leading airfreight carriers serving over 300 destinations in more than 100 countries. Operating predominantly in the airport-airport freight business, Lufthansa Cargo transports more than 1.5 million tons of air cargo every year.



The Context

Lufthansa Cargo wanted to migrate its legacy cargo booking platform to a modern digital platform solution with cloud infrastructure and brand-new front-end designs for improved usability. The goal was to build the best airfreight sales booking platform to enable future product vision, reduce operational costs, decrease time to market and boost up the sales for both internal sales force and direct digital sales. The customer was on track to achieve an overall increase of revenue of 30% by 2025 with a significant share of the revenue expected to come from direct and indirect digital sales channels.

The new booking platform would be the most critical IT system for sales and revenue management. It was being built jointly by a group company of the customer's parent organization dealing with technology services and other vendors dealing with support and front-end development. There was a need to have a partner who could demonstrate end-to-end ownership of the solution's quality through business process-driven quality consulting. This would allow Lufthansa Cargo to roll out the product faster without compromising on quality.

The Challenges

Hybrid project set-up

The new booking platform was implemented with a multi-vendor environment and multi-scrum agile project management philosophy focused on component-level. Back-end and front-end development streams had to ensure the integration of newly developed booking platform with the existing IT landscape, keeping intact the end-to-end business process in line with business requirements. The dependency between other business systems and the cloud infrastructure added to the complexity.

Techno-domain experience

Lufthansa Cargo was looking for an experienced partner in the air cargo domain, who could enforce strict quality through quality consulting on the new technology platform. There was a need to have a dedicated quality practice that was not just capable of product acceptance



testing but also product performance testing due to complex back-end services. It also required proven experience in quality and test management of large-size projects with multiple vendors. Lufthansa Cargo wanted to ensure quality delivery with negligible defect slippage, due to direct impact to its external customers in digital sales.

Cost overruns

The new booking system was a major digital transformation initiative, which required end-to-end ownership of quality. Overall budgets would increase if the initiatives to implement quality checks were to be done internally or via an on-site vendor team. Besides, any delays or faults from vendors would shoot up costs significantly.



"In our challenging multi-provider and multi-scrum agile project, IBS Software took over responsibility for the end-to-end software quality management, including comprehensive load-and performance testing. Project-external auditors recently testified the high maturity level of the test approach and processes. IBS Software strongly contributed to the overall project success, recent major release "eBooking" was widely considered as having been of good quality."

Rainer Weismantel
Head - Test Management and Transition Planning & Support, Lufthansa Cargo



The Solution

IBS Software was chosen to be the end-to-end partner for quality ownership for the new booking platform. Lufthansa Cargo entrusted IBS Software with this critical migration exercise, a decision influenced largely by the latter's history of successful quality acceptance engagements for major air cargo digital projects. The project team worked together with the customer's development and front-end engineering partners to build and execute a reliable quality acceptance road map. In addition to acceptance testing, the project team collaborated to support agile scrum model by recommending best practices to align towards project delivery goals. IBS Software consultants shouldered the responsibility of end-to-end software quality management for Lufthansa Cargo, which was inclusive of configuration test data management, defect management, and release management.

Outcomes of the Solution

Quality consulting throughout project life cycle

IBS Software collaborated with Lufthansa Cargo and vendor teams to define and implement end-to-end quality strategy in alignment with agile development model from the project kick-off phase. A specialized consulting established enterprise quality models with process definition and implementation of other quality engineering aspects around test environment set-up, tooling, and test automation. Together with the development partner's scrum teams, the IBS Software team instituted cross-team collaboration and shared responsibility for adoption of best practices to meet the overall quality goals of the customer. The team proposed a collaborative working model with Lufthansa Cargo's business team and development scrum teams to introduce knowledge management for enhancing test coverage and provided

end-to-end business process assurance through quality acceptance capabilities.

IBS Software's consultants worked closely with vendor scrum teams to provide quality consulting for implementing best practices and to troubleshoot problems found during early testing in the development environment within the sprint. Hence, critical defects were identified and resolved at a much earlier stage. The team established an additional quality gate early in the development phase, to support front-end agile sprints through embedded test analysis and verifications. This enabled the development partner to bring back the sprint delivery quality within acceptable range. This could improve the product quality of digital booking platform for external customers and enabled the vendor to meet the quality objectives of the new booking system.

Test process and operational efficiency

IBS Software implemented model-based testing approach to partially automate the creation of test artifacts in test process and reduce the effort towards maintainability. Test models provide transparency and controllability in creation of test cases and benefits agile development as a basis for discussion and decision-making. Leveraging IBS Software's domain expertise, and through continuous interaction with business and development teams, business use cases and epics were effectively transformed into activity diagrams and test models. The team developed test models that would be used by Lufthansa Cargo's operations and business teams for future change process due to high reusability and low maintainability. This could bring down the cost of the testing process and increase the overall quality. Through risk-based testing strategy by focusing on high-risk business areas and regression automation, IBS Software supported rapid application development in agile scrum model with shorter testing cycles to reduce time to market.

Cost effectiveness

IBS Software recommended a working model having a mix of on-site and offshore teams, which could reduce the overall quality assurance cost. With experienced technology domain experts in large-scale quality acceptance activities for air cargo customers, IBS Software could bring in reusability and automation from its large collection of air cargo-specific testing artifacts. By implementing best practices as model-based testing, the team further reduced efforts and subsequently the cost of quality for Lufthansa Cargo. End-to-end ownership brought down the overhead of managing quality needs from the customer.



The IBS Advantage

IBS Software's long-standing partnership with Lufthansa Cargo for its digital initiatives as well as for their quality assurance practices was bolstered by the consultative approach in quality acceptance provided by the team for the new booking solution integration. End-to-end ownership demonstrated by the consultants and the willingness to accommodate scope changes and out-of-scope objectives like support to other vendors to improve the delivery quality was greatly appreciated by Lufthansa Cargo.



About IBS Software

IBS Software is a leading SaaS solutions provider to the travel industry globally, managing mission-critical operations for customers in the aviation, tour & cruise and hospitality industries. IBS Software's solutions for the aviation industry cover fleet & crew operations, aircraft maintenance, passenger services, loyalty programs, staff travel and air-cargo management. IBS Software also runs a real time B2B and B2C distribution platform providing hotel room inventory, rates and availability to a global network of hospitality companies and channels. For the tour and cruise industry, IBS provides a comprehensive, customer-centric, digital platform that covers onshore, online and on-board solutions. IBS Software is a Blackstone portfolio company and operates from 15 offices across the world.

Further information can be found at <https://www.ibsplc.com>



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