CASE STUDY

Transforming Customer Self Check-in Experience at Airports

Synopsis
The client was looking to improve its customers’ self-service experiences across touchpoints, such as boarding pass issuance, seat booking, and rebooking, etc. The main objective was to provide a more tailored travel experience to customers in sync with emerging technologies. To achieve this, the client needed to improve application resiliency and availability by replacing the expensive and non-compliant legacy infrastructure and middleware of Self-Service Kiosks (SSKs) with modern microservices-driven architecture. Coforge helped the client capitalize on the benefits of a microservice architecture with its Departure Touchpoint Program. Delivered in two phases, Departure Touchpoint marked the client’s first use of microservices. In phase-1, Coforge improved the customer experience by implementing a Single-Page Application delivered via a self-service touch-screen kiosk. In phase-2, Coforge introduced self-service rebooking, seat maps, and bag tag issuance, thereby improving the customer journey and the client’s revenue potential.

Departure Touchpoint’s utilization of a modular approach, enabled by the microservices architecture, resulted in unparalleled success for clients with reduced passenger check-in times, increased self-service availability and resiliency, savings in IT hardware and software operating costs, and improved time to market.

About the Client
The client is a leading carrier in the world’s largest international aviation market and the premier European carrier across the North Atlantic, transporting more than 40 million passengers a year.

Business Challenge
The client’s legacy infrastructure and middleware was a major hindrance to their self-service offerings. An aging, increasingly expensive, and non-compliant Self-Service Kiosks (SSKs) impeded the client’s self-service delivery for their customers. The client faced:

- A less than desirable boarding pass issuance success rate of 60%,
- A low rate of passenger self-service eligibility for check-in,
- A 95% rate of application availability and resilience,
- A lengthy time to market release cycle of 6 months,
- Minimal SSK functionality with no rebooking and bag tag printing, and,
- Rising hardware and software operating costs and development timelines.

Our Solution
Over 18 months, Coforge proved reliable as a partner for the airline as it leveraged its industry expertise and earned the client’s trust. Coforge’s initial scope was to design architecture services, microservices development, and program management. Subsequently, Coforge’s contract was extended to include cloud environment management and setup and UX development for SSK check-in and boarding pass issuance. The modern microservices-driven architecture was initially set up at London Heathrow with eventual rollout to other airports worldwide.

Coforge set up the Departure Touchpoint program - a microservices-enabled modular approach to delivering self-service offerings. The solution was delivered in two phases:

Phase 1 - Implementing a Single-Page Application delivered via a self-service touch-screen kiosk.
Phase 2 - Implementing self-service rebooking, seat maps, and bag tag issuance.

Departure Touchpoint marked the airline’s first use of microservices. Due to this, Coforge is now uniquely positioned with a library of common services covering functionalities such as check-in, seat maps, boarding passes, rebooking, and bag tags. These microservices can easily be exploited by other modernization projects across the airline. Coforge provided application support, maintenance, and several feature enhancements, including rebooking, seat maps, boarding pass issuance, and language support by the end of the year.

Coforge successful delivery is evidenced by:

- The operation of parallel workstreams to deliver microservices and the user interface in 3-4 months,
- The execution of a closely coordinated program, with the client team and external suppliers,
- The consistent practice of agile for the delivery of the Minimum Viable Product (MVP) and early and continuous delivery of feature releases every two months after the initial MVP, and
- The additional responsibility of configuring kiosk devices for other kiosk platform setup.

Delivering more value

Coforge helped the client capitalize on the benefits of a new microservices architecture by delivering faster customer transactions, shorter application development release cycles, better disruption handling, and better accessibility.

Departure Touchpoint modular approach, enabled by the microservices architecture, resulted in unparalleled success for the client with:

- A 70% reduction in time taken by passengers for check-in at SSK,
- Increased self-service availability and resiliency from 95% to nearly 99.8%,
- Generated savings in IT hardware and software operating costs,
- An increase in the 60% boarding pass issuance and eligibility for check-in rate to greater than 90%,
- Increased self-service capabilities including visa scan, disruption handling, and accessibility support, and
- Improved time to market and greater agility moving from 2 releases over 12 months to 6 major releases and 10 enhancement releases over 15 months.

The Coforge Advantage

The client-Coforge partnership is a longstanding and productive relationship resulting in numerous successes over the years. Thus, it was no surprise that Coforge, once again, proved to be a viable partner when a competitor was unable to deliver the SSK upgrades as expected.

Resourcefulness, flexibility, and tenacious dedication were some of the key drivers behind Departure Touchpoint’s success. Throughout the project, Coforge proved resourceful in meeting its challenges head-on.

In the end, Coforge was ready to advance clients in their first microservices project and posture them for transformation in the air transport industry.