

Improving a Flight Refund Service

A global provider of flight refund services turned to Altoros to optimize claim processing at each of 13 validation steps.

 <p>13 validation steps</p>	 <p>2.5x speed improvement</p>	 <p>15,000 users per year</p>
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The Customer

Established in 2016, the company is a Germany-based provider of flight refund services. Operating globally, the organization helps to get compensation for delayed and cancelled flights in just 48 hours.

The Need

The customer had a claim management system built on top of the legacy technology stack. This led to multiple errors at different steps of data analysis while the system evaluated whether or not a passenger was entitled to compensation.

Cooperating with Altoros, the customer wanted to optimize claim processing at each of the 13 validation steps.

The Challenges

Under the project, the team at Altoros had to address the following issues:

- Due to a poorly designed business logic, flight-related data extracted from 6 external services was processed incorrectly;
- The website loading speed was too low (30 scoring points according to PageSpeed Insights) to keep leading positions in Google Search results;
- A third-party service, which provided weather data, was to be deprecated.

The Solution

By restructuring business logic, engineers at Altoros eliminated errors during data processing at each of the 13 validation steps. Now, the system was able to faultlessly aggregate a flight number, departure/arrival dates, presence of other claims, compliance with European Regulation 261/2004, incidents, reasons for a flight delay or cancellation, weather conditions, etc.

To optimize the website loading time, our developers transferred a part of assets to specific content distribution services. In addition, the team at Altoros implemented lazy content loading search engine optimization. This allowed to increase loading speed by 2.5 times.

In order to analyze weather-related information, our engineers integrated the system with a trusted market solution to replace the deprecated service.

Finally, developers at Altoros covered the code with multiple tests using Selenium.

The Outcome

Partnering with Altoros, the customer optimized data processing of its flight refund service at each of the 13 validation steps, enabling 15,000 users per year to get timely compensation for a delayed cancelled flight. With the speed improvement by 2.5x, the solution's website was able to retain its leading positions in Google Search results.

Brief results of the collaboration

- The customer improved data processing of its flight refund service used by 15,000 air passengers per year;
- With an optimized business logic, the organization eliminated errors from each of the 13 validation steps of the claim processing: a flight number, departure/arrival dates, presence of other claims, compliance with European Regulation 261/2004, incidents, reasons for a flight delay or cancellation, weather conditions, etc.
- Thanks to an increase in website loading speed by 2.5x, the company managed to retain leading positions in Google Search results.

Technology stack

Platform	Heroku
Programming languages	Ruby, JavaScript, HTML, CSS
Frameworks and tools	Ruby on Rails, Selenium, Sidekiq
Databases	PostgreSQL

