Case Study

Drive-Thru Management Platform

AltexSoft Rebuilds Gamification and Analytics Systems
for Drive-Thru Management Platform

React, Node.js.

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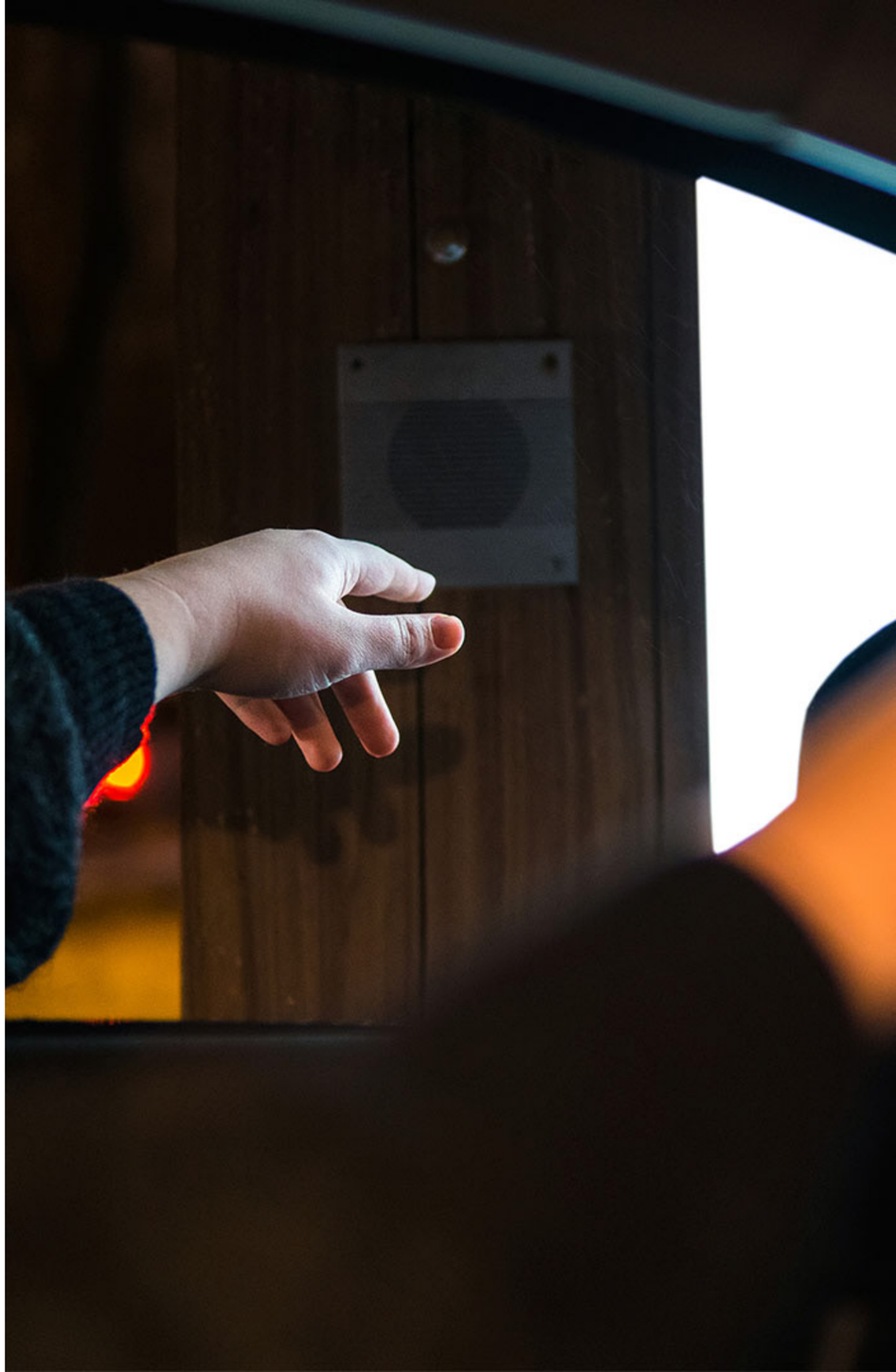
Background

Our client is a US-based company that produces a variety of quick-service restaurant (QSR) communication and audio software solutions for hospitality, healthcare, sports, and education markets. Our client pioneered the introduction of wireless drive-thru headset systems for restaurant services. Today, the company distributes its products and services to over 100 countries.

The client reached out AltexSoft to improve their drive-thru gamification service. This system has several user engagement tools aimed at increasing the productivity of stores that use client’s drive-thru headsets by competing with each other in car count, average service time, and other metrics. This task comprised streamlining and modernizing data processing and analytics, as well as advancing user engagement strategy by expanding the gamification platform with new elements.



Challenges

Within the scope of tasks, our team faced the following challenges:

1.

Streamline data processing and reduce analytics spendings

2.

Integrate client’s diagnostic tool with a new computing unit

3.

Boost user engagement platform

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Value Delivered

1. Accelerated real-time analytics processing and reduced computing expenses by two thirds

Our client used a computation unit that worked on Azure Stream Analytics and processed data using SQL-like language. This computation unit was the heart of their analytics system, as it processed telemetrics data, like the number of cars passed and service time, from the “stores” – places where their drive-thru devices were used. This unit experienced problems with the increasing amount of incoming data. We replaced the old computation unit with a custom Node.js-based solution. Because of the new architecture, the solution can process a larger amount of data faster. Also, with the new computation unit, data processing became more cost-efficient, reducing the client’s spending by almost two-thirds.

2. Integrated real-time performance display

The scope of work included the integration of the timer, a performance-tracking tool that displays key metrics like car count and average service time. The service allows store managers to track key performance indicators. We integrated the new computation unit with the tool that works on Microsoft Azure Cloud so that the data is displayed accurately and in real-time.

3. Enhanced gamification platform

Our client has its gamification platform for user engagement. The point of this platform is that the stores that use drive-thru technologies can compete with each other in different metrics, like car count and average service time by store. This platform allows stores to earn points and unlock achievements that are displayed on leaderboard in-store devices. Our task was to improve the existing system by expanding the number of new achievements. We built both front- and back-end of the new contests and awards, and also created a new user interface for them. The front-end is built using React with Node.js on the back-end.

Approach and Technical Info

The project's duration was **9 man-years** for the described scope. It was completed by a team of six professionals: **4 Full-Stack Engineers**, a **UI specialist**, and a **project manager**.
The cooperation between the client and AltexSoft is ongoing.

Our team worked in the **Scrum** workflow. The technology stack included **React** and **Node.js.**

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