Omio: How an integrated Google Cloud backend streamlined user experience

> *"A multi-platform experience has been an essential part of the Omio travel app since day one. Working with PGS Software to optimise and unify this process has proven very successful, as their nearly decade-long experience with the Cloud has helped us benefit from a future-proof and scalable solution whose backend is integrated across all platforms. Now, our customers can enjoy live updates and the newest in-app features anytime and on any device."*
>
> Moiz Zuberi
> Senior Engineering Manager — Omio

Omio, Europe's leading booking platform for travel by train, bus, and flight, was looking to unify the backend of its app to ensure users always have access to the newest feature updates and receive key itinerary information - even while the app is turned off. To realise this optimisation, the team developed an extended Google Cloud-hosted infrastructure, which guaranteed consistency and availability across all platforms.

BUSINESS NEED

Omio enables travellers to find the fastest, cheapest, and best transport options to and between thousands of European destinations.

Omio, which was previously known as GoEuro, today has more than 27 million monthly users, with 70% of traffic from mobile alone. To help engage and delight this user-base, Omio wanted to enhance the user experience of one of its key products – the mobile app.

The app already provided crucial information such as the departure platform, train stops in between destinations, and delays or alterations to services. But: users could only benefit from this functionality when the app was turned on. To alleviate this inconvenience, Omio wanted to build a Google Cloud-hosted infrastructure that would unify the desktop and mobile applications via the backend – enabling the app to work even when turned off, and for updates to be implemented across all platforms in unison.

PROJECT DETAILS

To meet the need for an optimised user experience, Omio's solution would take over the mobile application's system logic, resulting in an infrastructure that works universally across every platform, be it iOS, Android, or desktop.

This optimisation, realised using Google Cloud Firebase amongst other services, enables notifications to be sent to end users even when the app is turned off, and ensures that updates come into effect simultaneously across all versions of the app. This

is possible thanks to the Cloud-hosted infrastructure, which automatically sends notifications and integrates all systems.

The integration also allows for cost efficiencies for Omio, which only has to submit requests for data updates from partners (i.e. train and bus companies) for each train or bus and not each passenger. This helps to cut costs as Omio's partners only allow for a certain number of information requests to be made until they start charging additional fees.

BUSINESS BENEFITS

Thanks to this optimisation, Omio was able to provide their users with a highly available, Cloud-hosted, and fully integrated multiplatform mobile app, which:

— Sends push notifications when turned off – ensuring users always stay informed on their travels,

— Is integrated – meaning the app is updated simultaneously across all platforms,

— Guarantees ease of use – new features become active without clicking "Update",

— Saves costs – Omio limited the number of queries they have to send to partners,

— Is scalable – using managed Cloud services enables the app to adapt as needed,

— Decreased time-to-market – using Google Firebase accelerated development effort.

10 min
Time
To deliver new features to the user; previously, this took months

300
Microservices
Render the app highly performant

3x
Reduction
In the number of expensive requests to partner systems

2.5x
Reduction
In the development effort thanks to Cloud services

TECHNICAL DETAILS

SOLUTIONS
DevOps, Integration Testing, Canary / Zero Downtime Deployment, Microservices, Infrastructure as Code

TECHNOLOGIES
Google Cloud Platform, Firebase, PubSub, Kubernetes, Docker, Spring Boot, Protobuf

TOOLS
Jenkins, Github, Jira, Grafna, Kibana, Sentry, Terraform

TEAM
1 Backend Developer

ABOUT THE CLIENT

Omio (previously known as GoEuro) helps customers find and book tickets for travel by train, bus and flight across Europe. Omio shows the best transport options, based on duration, price or mode, while eliminating the need for users to visit multiple websites to plan a trip and creating a simple, personalised booking experience.

ABOUT PGS SOFTWARE

PGS Software is one of the largest public listed custom software & services providers in Poland. As an AWS Advanced Consulting Partner, we specialise in Cloud projects – consulting, cloud-native development, application modernisation, & migration. Working according to agile methodologies (Scrum, DevOps, & Continuous Delivery), we create mobile & web applications as well as provide Business Analysis, Visual Design, UX, UI, & QA services to clients worldwide. We have development & business entities in Poland, UK, Germany, & Spain.

FOR MORE INFORMATION ABOUT OUR SERVICES:
PLEASE CONTACT US AT **+48 71 798 2692** OR **Info@pgs-soft.com**
OR VISIT OUR WEBSITE **WWW.PGS-SOFT.COM**

PGS SOFTWARE