zenitech

Case Study

Rewriting the lottery, without missing a draw

Customer
National lottery

Industry
Entertainment & media

zenitech

Replacing a system the whole country relies on

In 2022, a new operator won the highly coveted 4th UK National Lottery License, ending nearly three decades of incumbency. The prize came with a monumental obligation: replace every legacy system inherited from the previous operator within two years, while doubling good cause donations over the ten-year license term. The catch was that the new platform had to feel familiar to millions of existing players, meaning the team would spend over two years building a modern, scalable version of what already existed.

The complexity ran deep. The outgoing platform was old and unstable, operating at capacity for years, and notoriously resistant to change. The new operator needed to integrate with multiple third-party providers, while delivering a completely new digital front end across web and mobile. Early supplier arrangements added friction rather than momentum. and the operator's team numbered just 15 people at the outset. Shifting priorities and low confidence in backend delivery timelines created a sustained period of instability, with the team at one point having to plan for going live on the new front end while still running the legacy back end.

Automation, architecture, and a team that adapted

Zenitech's role centred on the digital front end: the website, native mobile apps, and the critical API layer connecting them to backend systems. The partnership wasn't accidental. It grew from a relationship forged through previous successful work with other lotteries, giving both sides a foundation of trust and technical understanding before the licence was even awarded.

As the project matured, the team grew to between 80 and 90 people organised into agile squads. The real transformation, however, was in how the team worked. They replaced what had been a manual, traditional approach to software delivery with full automation: Terraform for infrastructure provisioning, CI/CD pipelines enabling single-click deployments, and robust test coverage across unit and functional layers. The architecture was built on AWS, with Java and Spring Boot powering the backend, React driving the web experience, and Jetpack Compose and SwiftUI delivering truly native iOS and Android apps. Magnolia was implemented as a headless CMS, serving content seamlessly across all digital channels.

zenitech

Results: 50 releases and counting

The new Lottery platform launched successfully, and the numbers speak for themselves. Since going live, the system has seen approximately 50 releases (total updates to the platform (across all DFE components) are around 15 or less), a pace that would have been unthinkable on the old platform where even minor changes were fraught with risk. Being cloud-native on AWS means the system can now scale and throttle on demand, with vastly improved monitoring and alerting giving the team visibility that simply didn't exist before.

Zenitech is now running a SRE team, tasked to monitor and improve the system before issues become escalations raised through Support.

The unstable, capacity-constrained legacy platform has been retired. In its place sits a modern, automated architecture where deployments are routine rather than events, and the team has the operational headroom to focus on what comes next: new games, features like pool play and syndicates, and a roadmap designed to drive the sales growth and good cause contributions that sit at the heart of the licence commitment. What started as a complex, supplier-fraught transition has become a platform built to evolve for the next decade.

www.zenitech.co.uk
info@zenitech.co.uk
linkedin.com/company/zenitechteam
facebook.com/zenitechteam
instagram.com/zenitech