



Case Study

From crashing games to a global gaming powerhouse

Location
United Kingdom

Industry
Entertainment

When every crash costs money

The customer is a leading provider of competitive gaming content for the global betting industry. Professional employees, known as gamers, play titles around the clock in dedicated studios on PlayStation consoles, with every match live-streamed to betting companies worldwide.

The original system relied on a standalone desktop application installed on individual machines. Internet drops, machine crashes, and software instability meant that multiple games were lost every single week. Each lost game forced them to cancel the associated markets, void all bets, and return stakes to customers.

Beyond stability, manual processes were starting to creak. Traders needed to work on-site, with one trader locked into a single game at a time. They registered in-game actions by clicking buttons while watching a live stream. Scheduling hundreds of gamers across shifts and streams was a logistical headache handled through emails and team chats, with staff constantly overwhelmed by last-minute changes. At a retention rate of less than 80%, the platform was holding them back from the growth they wanted.

Building a platform that never sleeps

Cloud-native trading, accessible from anywhere

The joint Zenitech customer team began by rearchitecting the core trading platform. They reverse-engineered the features of the legacy desktop client, incorporated statistical pricing algorithms, and deployed everything onto a Kubernetes cloud cluster accessible through a web portal. 20+ stateless backend services were built, each functioning independently, enabling production deployments with minimal downtime and the ability to scale endlessly. The impact was immediate. Traders were no longer tied to on-site machines. They could log in and manage events from anywhere in the world. Crucially, the new system introduced a fail-safe mechanism: if a trader lost their connection, another could instantly take over the event, eliminating the single point of failure that had plagued the old system.



In-house analytics and intelligent pricing

For the sports titles, the team built a bespoke analytics engine using statistical models such as Poisson and Negative Binomial distributions, selecting the best-performing algorithm for each game type. On top of this, they developed a machine learning model that predicts final scores based on historical data. Before a match even begins, the system assigns ratings to each player and team, which feed directly into the live pricing calculations that update every few seconds based on in-game actions.

For newer titles, where speed to market was critical, the team took a pragmatic approach. Zenitech collaborated with their third-party pricing provider to calculate markets based on their managed game state and data, drastically reducing the time to launch while maintaining the long-term goal of bringing all pricing algorithms in-house.

AI-driven automation of in-game data capture

One of the most labour-intensive aspects of the old workflow was data capture. Traders had to manually register every in-game action by watching the live stream and clicking buttons in real time. The team eliminated this bottleneck by integrating a third-party AI provider that analyses the video stream directly, translating on-screen actions into structured message payloads and automating the entire input process.

Automated gamer scheduling at scale

With the customer running between 1,000 and 1,500 games every 24 hours across multiple streams, scheduling was a massive logistical undertaking. The team built an Ops Portal that automatically generates schedules and matches gamers to appropriate streams. The portal integrates with their HR management system to fetch availability data, and uses individual player ratings to assign gamers to the right streams and roles. New hires play 100 data collection matches to establish a rating before they are assigned to live streams.



Infrastructure built for the future

The entire platform is housed within a Kubernetes cluster, with all services stateless and independently deployable. The technology stack spans over 20 backend services and a range of data stores, including Redis cache for externalised state management. To address performance bottlenecks and support continued growth, the team is migrating from MS SQL to Cosmos DB, a NoSQL database designed for the scale and flexibility their expanding operation demands.

The results: stability, scale, and a new market

From revenue leak to near-perfect retention - the most dramatic outcome was platform stability. Game retention jumped from below 80% to approximately 99%, virtually eliminating the revenue lost to cancelled markets and voided bets. The fail-safe trader handover mechanism means that even connectivity issues no longer result in a lost event.

Tripled trader efficiency

With AI-driven data capture removing the manual burden, a single trader can now supervise three games simultaneously, up from just one. This tripling of efficiency has reduced operational costs while enabling them to offer significantly more content: 14 streams, all without hiring additional trading personnel.

Scheduling that scales with the business

The automated Ops Portal transformed what was once an overwhelming manual task into a streamlined, scalable process. The same scheduling team that previously struggled to keep up now manages all streams comfortably, giving them the operational capacity to continue adding games and expanding its offering.

First-mover advantage

Work on new titles is already underway. Competitive gaming is now their most profitable product line, and the platform's architecture means that scaling to new titles and new geographies is a matter of configuration, not crisis management.