

**William Hill
Case Study**

INTRO

Transitioning into the world of ApiOps.



“Performance and automation along with high peak traffic you won’t see anywhere else – supported by the APIIDA API Gateway Manager.”

VINCE BAKER
PRINCIPAL ARCHITECT APIM
APIIDA

THE COMPANY

Entertainment and gaming built on decades of technology

William Hill was founded in 1934 as a postal and telephone betting service and has grown into an international business of scale. Today, the business employs over 10 thousand employees worldwide, and posted net revenues of £1.3Bn in 2020.

William Hill now operates over 1400 betting shops in the UK, while their offices in the UK, Gibraltar, Malta, Bulgaria, Poland, and Manila support their ever growing online business. All of this is what makes William Hill one of the largest gambling operators worldwide.

THE CHALLENGES

Complete enterprise migration from on-premises infrastructure to the cloud with AWS

William Hill decided to move its entire infrastructure and processes from an on-premises infrastructure to the cloud leveraging Amazon’s Kubernetes service (EKS). The foundation required for this was extensive automation and the introduction of DevOps processes. APIs and API management are essential parts of William Hill and provide much of the company’s revenue. Therefore, it needed secure and stable infrastructure and workflows. Traffic is coming in from all kinds of devices, partners

and the retail offices. Popular horse races, soccer matches and others drive up the demand for William Hill’s services and result in a very uneven distribution of traffic and utilization, with huge traffic spikes during the most popular events like the infamous Grand National. Therefore, a highly scalable solution is required. The company’s fast-moving agile development processes also required attention to ensure that API developers could consistently produce secure and supportable code.

SOLUTION APPROACH

Combining strong products with expertise for intelligent API Management

The API Lifecycle and deployment process were very manual and needed automating. APIIDA worked closely with William Hill to give them the perfect migration tool to speed up processes, remove human error and integrate the Layer7 technology stack into a CI/CD pipeline using the APIIDA API Gateway Manager and Git.

To ensure fully standardized and maintainable APIs were created by the development team, APIIDA implemented a highly advanced framework on top of the Gateways. This is known as APIIDA API Service Manager. It ensured that every API created followed a strict security policy and that all routing and logging is standardized and controllable via its own API, allowing for quick and easy debugging and fast error recovery times.

Throughout the AWS migration APIIDA helped design and upgrade the Layer7 technology stack. Gateway versions needed to be upgraded to version 10.x and the developer portal needed to be replaced. It was a major challenge to perform all these tasks in parallel (Policy rewrite, APIIDA API Service Manager framework setup, APIIDA API Gateway Manager integration, migration to EKS, CI/CD, Gateway upgrade, Portal upgrade etc), however, the resulting solution has provided a stable, secure and dynamically scalable API management platform.

“Great personal collaboration between William Hill and APIIDA along with powerful technology teaming between Layer7 and the APIIDA API Gateway Manager for high performance.”

JOSE IGLESIAS SERRANO
PRODUCT OWNER API
WILLIAM HILL



RESULTS & BENEFITS

A future-proof infrastructure with Layer7 and the APIIDA API Gateway Manager

Due to the efficient cooperation between the teams of William Hill and APIIDA, developer-friendly processes and frameworks are now in place. This creates a framework that ensures standardization, security and stabilization. Using APIIDA's tools new CI/CD pipelines were constructed, that fully automate the deployment processes and use Git as their single source of truth.

All existing platforms in William Hill's API infrastructure were updated and previous custom "fixes" were removed to ensure vendor support. The whole infrastructure was moved to containerized gateways and is now run-on multiple Kubernetes clusters. Throughout this process, APIIDA's team of experts interacted closely with Broadcom architects to ensure that the solution not only reflected William Hill's goals, but also aligned with Broadcom's APIM roadmap.

In addition, APIIDA's API management experts have been conducting training sessions with the William Hill team to maintain a best-practice mentality going forward.

CONCLUSION

Ready for the next innovations in gambling

The new infrastructure and processes in place allow William Hill to tackle the future of gambling without being held back by technical debt. By leveraging the existing knowledge within William Hill. The transition was smooth and the goals set out by the client were fully reached.

The processes and automation introduced allow William Hill's developers to spend considerably more time on designing and building business relevant APIs, instead of carrying out troubleshooting or manual deployment work.

Leveraging the dynamic scaling features of Kubernetes helped to reduce the number of instances running at any given point and allow for even bigger traffic spikes, compared to the previous on-premises infrastructure.

"Milliseconds can make the difference on the platform and with the APIIDA API Gateway Manager, even data-intensive events with performance spikes can be handled with ease."

PAUL JOHNSON
SENIOR TECHNICAL PRODUCT
OWNER - SPORTSBOOK
WILLIAM HILL



PRODUCTS USED

The **Broadcom Layer7 API Gateway** connects data and applications across any combination of cloud, container or on-premise systems, enabling consistent security and control for APIs. In doing so, the extensible, scalable and powerful software product provides industry-leading orchestration and optimization capabilities.

The **APIIDA API Gateway Manager** is the leading solution for automated API Operations. It provides intelligent features for fast and reliable API deployment and migration, as well as a comprehensive API monitoring and alerting system.

The **APIIDA API Service Manager** provides the tools and standardization that are missing in the „out of the box“ Layer7 API Management solution. This creates a turn-key solution that completes the overall API Management, enabling reliable API Lifecycle Management.

“The reliable pairing of the Broadcom Layer7 Gateway with the APIIDA API Gateway Manager and Kubernetes has created a future-proof and resilient infrastructure that reinforces William Hill’s competitive advantage.”

MARILENA MÜLLER
HEAD OF PRODUCT AND MARKETING
APIIDA

ABOUT APIIDA - THE API MANAGEMENT EXPERTS

APIIDA is the market leader in API Management 3.0, combining leading technology with expertise and a deep desire to deliver an outstanding customer experience. Our products and services put APIs front and center and enable customers to rapidly grow new business models and offerings. Our customers shall not be limited by vendor lock-ins or technology decisions that hamper change. Instead, they should rely on open standards and vendor-independent technology, enabling them to embrace change.

APIIDA was founded in 2017 and is headquartered in Darmstadt, Germany. The company serves over 300 organizations globally, across a wide range of industries.