Darwinium

CASE STUDY

Proactive Protection at Scale: How a Digital Bank Strengthens Fraud Defenses with Darwinium

How Darwinium, deployed on AWS, gives a fast-growing digital bank unified, real-time fraud protection across the entire customer journey

© 2026 Darwinium. All rights reserved.

Summary of Results

- Tens of millions of monthly interactions safeguarded across key banking touchpoints
- Thousands of fraudulent login attempts proactively identified and blocked
- Numerous high-risk accounts closed to prevent misuse
- Significant reduction in Suspicious Activity Reports (SARs) from partner institutions
- Maintained regulatory compliance across device, behavioural, and reporting requirements under national anti-scam and account-protection regulations

A Rapidly Growing Digital-First Bank

The bank is a regulated digital banking institution serving millions of customers. Since launch, it has scaled rapidly to become one of the fastest-growing digital banks in its market, built around security, simplicity, and an easy customer experience across saving, spending, investing, and money management.

Millions of customers onboarded since launch

App available to customers across 100+ countries

Consistently industry-leading customer satisfaction scores

© 2026 Darwinium. All rights reserved.

The Challenge: Staying Ahead of Evolving Fraud Tactics

As customer adoption surged, so did exposure to increasingly sophisticated fraud tactics, often powered by emerging technologies. The bank faced threats targeting the integrity of its digital ecosystem, requiring a shift from traditional transaction-based detection to a holistic, AI-driven approach.

By combining device-level insights with behavioural analytics across the entire user journey, the bank strengthened its defences and ensured proactive protection at scale.

Why Darwinium: Cyberfraud Prevention Across the Entire Customer Journey

The bank partnered with Darwinium to deploy continuous, real-time protection across critical customer journeys. The solution was seamlessly deployed in the cloud, on Darwinium's AWS-based infrastructure, enabling broad visibility and proactive threat mitigation without disrupting a trusted customer experience.

Coverage expanded across key touchpoints in the customer journey, including account origination, device linking, login, device relinking, and fund transfers — delivered globally via AWS CloudFront. Protecting new touchpoints was as simple as configuring new journeys within the Darwinium portal. Darwinium's flexible architecture allowed the bank to ensure end-to-end protection by rapidly configuring new protection layers with minimal engineering effort, adapting swiftly to emerging threats.

This partnership provides the bank a unified fraud defence that evolves alongside the threat landscape, while also supporting operational efficiency and regulatory compliance.

© 2026 Darwinium. All rights reserved.

Powered by AWS: The Infrastructure Behind the Results

Darwinium runs on secure, cloud-based infrastructure hosted on Amazon Web Services (AWS), built with security and reliability as top priorities. This is the same AWS foundation that underpins the deployment described above — delivered to the bank's customers worldwide via AWS CloudFront.

- **Separation for security:** Production, testing, and development environments are kept completely separate, so an issue in one area cannot spread to affect others — including the live product customers rely on.
- **Built for scale and uptime:** The core platform automatically scales up or down with demand, keeping performance consistent whether traffic is light or heavy. Critical data is duplicated across multiple physical locations to protect against outages and data loss.
- **Fast, secure global access:** A global content delivery network, via AWS CloudFront, routes customer traffic quickly and securely regardless of where users are connecting from. All traffic is encrypted, and access between internal systems is tightly controlled and authenticated.
- **Data protection:** Sensitive data, including personal information, is encrypted both at rest and in transit, using industry-standard security tools.
- **Resilience:** Continuous backups run across the platform, enabling rapid recovery if anything goes wrong.

In short: Darwinium's AWS-based infrastructure is designed to isolate risk, scale reliably, protect data, and keep the platform fast and available worldwide — the foundation that let the bank extend protection across its entire customer journey without re-architecting its own platform.

© 2026 Darwinium. All rights reserved.

Strategic Outcomes Delivered by Darwinium

- Integrated intelligence platform combining device and behavioural signals, replacing fragmented tools
- Cloud-native deployment, on AWS, enabled agile protection across multiple customer journeys
- Frictionless rollout, scaling seamlessly across teams and use cases
- Long-term strategic collaboration, with Darwinium actively supporting the bank's evolving fraud prevention roadmap

Impact Highlights

Proactive Threat Mitigation

- Thousands of fraudulent login attempts were intercepted monthly
- High-risk accounts were identified and closed before they could be exploited
- Behavioural patterns were used to flag suspicious activity and strengthen interdiction, including identifying money-mule behaviour and tagging key identifiers for investigation

Regional Fraud Reduction and Peer Validation

- The bank saw a notable reduction in suspicious activity reports from partner institutions
- The bank's leadership in fraud prevention was acknowledged across the industry, reducing manual investigation overhead and reinforcing trust

Operational Efficiency Gains

- Fraud teams were freed from repetitive tasks, enabling them to focus on identifying and addressing emerging threats
- Advanced analytics enabled the discovery of previously undetected fraud patterns, enhancing investigative capabilities

© 2026 Darwinium. All rights reserved.

Making Customer Protection a Key Differentiator

The bank's fraud prevention strategy has become a powerful competitive advantage, delivering a secure and seamless banking experience that customers trust. Its commitment to proactive protection not only safeguards user data and transactions but also strengthens long-term customer loyalty and confidence.

Darwinium

© 2026 Darwinium. All rights reserved.