Banking case study

Financial Conduct Authority improves agility and responsiveness with AWS cloud migration

Cognizant helps the UK financial regulator modernize its data collection application and implement a secure, agile cloud infrastructure that can easily accommodate regulatory changes.

At a glance

Industry
Banking

Location
United Kingdom

Challenge
Design and build a new technology infrastructure and data collection application in the AWS cloud to create a secure, agile and responsive foundation supporting the FCA's regulatory activities.

Success Highlights

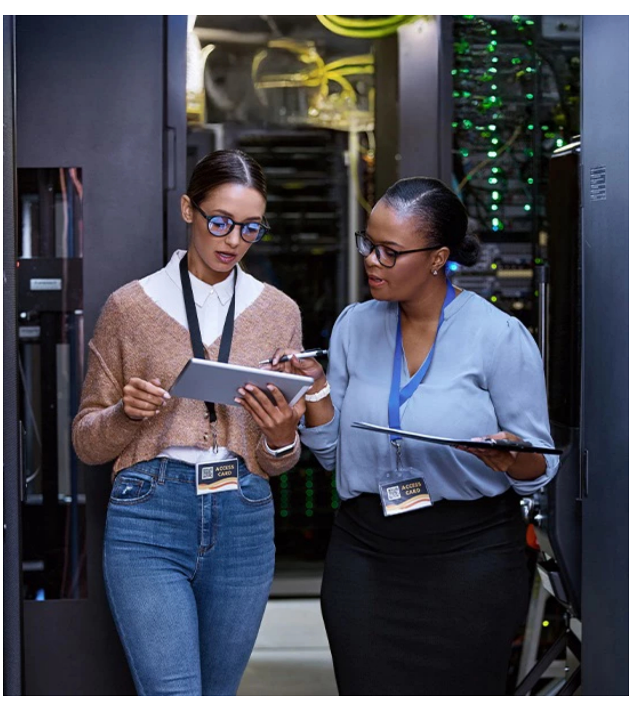
- Successfully migrated 34 TB of data to AWS as part of the Data Centre exit, ensuring a seamless and disruption-free transition
- 75% Reduction in the provisioning of Regdata application in AWS as compared to on-premise process
- Led automation and continuous improvement initiatives in cloud automation and delivery, generating substantial AWS run cost savings over the past three years — including a peak annual saving of £1.2 Million

The challenge

The Financial Conduct Authority (FCA) is the regulatory body overseeing banking and financial markets in the UK. It's charged with ensuring that 53,000 financial services companies adhere to the regulations that it defines, and that the firms work well for individuals, businesses and the UK economy.

The FCA achieves its aims partly by requiring 53,000 regulated firms to submit regular reports via an online application. It uses these reports to monitor and analyze financial conduct across the sector, intervening when it detects a suspected breach of regulations.

The FCA's Infrastructure Products Group (IPG) is responsible for ensuring that adequate infrastructure is in place to support the applications that collect, store and analyze the submitted data.



Replace aging on-premises infrastructure with a secure, agile cloud environment

The FCA had been using an on-premises data center to store and process the regulatory data it collects, but it was reaching the end of its useful life. Rather than invest in new on-premises infrastructure, the regulator planned to exit the data center and build a secure, flexible cloud environment in AWS to meet the current and future needs of its application product groups.

Key aims were to minimize data security risks, lower operating costs and enable FCA product groups to respond swiftly to legislative and regulatory changes. Regulatory changes—like the economic sanctions imposed on Russia and Belarus following the invasion of Ukraine—must often be rolled out quickly. A cloud environment would help the FCA to make faster changes to the relevant applications.

As well as providing a flexible new infrastructure foundation, the project would require the online data collection application to be modernized and around 34TB of data across multiple product group applications to be migrated seamlessly to AWS. The FCA looked to its strategic delivery partner Cognizant to lead this mission-critical project.

Our approach

Cognizant worked closely with the IPG and with our partner AWS to deliver the cloud transformation. We stood up a multidisciplinary team with expertise in cloud migration, DevOps, application development and testing, and adopted an Agile approach to ensure a smooth and on-time delivery.

Key highlights of the transformation project included:

Application modernization: We re-architected the online data collection application, building it natively in AWS in line with the FCA's cloud-first strategy and using a microservices approach for downtime-free fixes, updates and new feature rollouts.

Infrastructure design and build: We designed and built a flexible infrastructure foundation, using AWS Landing Zones for multiregional hosting and AWS Well-Architected Framework principles to ensure the new platform delivers maximum value. The platform is fully responsive to the needs of FCA product groups, enabling new environments to be provisioned in just 5–8 minutes.

Data migration: We migrated 53,000 firms and 120,000 users, as well as 15TB of shared drive files and 40 million non-shared folder documents to the AWS platform. To improve the searchability of data and documents for FCA users, we used a custom-developed application with AWS Elasticsearch Service and an UltraWarm storage node.

Hybrid cloud integration: We integrated the applications and infrastructure with other cloud platforms in the FCA's resilience-focused multicloud strategy, as well as with other components of its cloud-first strategy, such as Cloudflare, Cloudera and Google Apigee.

Automated monitoring: We implemented Datadog for application performance and container service monitoring across the AWS infrastructure and applications. Datadog automatically flags unusual spikes or drops in critical metrics, enabling the FCA to identify and resolve any problems fast.

DevSecOps and automation: We adopted a DevSecOps approach for the Cloud Delivery, with a strong focus on automating infrastructure deployment processes. Several application deployments were successfully automated end-to-end, enhancing speed, consistency, and security.

Business outcomes

This end-to-end cloud transformation project has enabled the FCA to decommission its on-premises data center on time and start benefiting from a secure, resilient and flexible cloud infrastructure platform. Specific outcomes that the project has achieved for the FCA include:

- **Scalable, secure platform:** The new platform will support the FCA's data collection and market monitoring activities far into the future, while keeping sensitive financial data secure.
- **75% lower provisioning time:** Infrastructure provisioning time in AWS for the Regdata application has been reduced by 75% compared to traditional on-premises provisioning and change management processes of the legacy application.
- **Improved time to market:** The modernized cloud infrastructure for the Regulatory Data Collection platform has significantly accelerated new release deployments, improving time to market. The new microservices architecture pattern enables rapid rollout of new features and regulatory updates with near-zero downtime for several critical cloud-hosted applications.
- **Enhanced user experience:** FCA employees benefit from faster document search and downloads from the millions of records collected and stored on the platform.
- **Lower operational costs:** Automation and continuous improvement initiatives in cloud automation and delivery have generated substantial AWS run cost savings, including a peak annual savings of £1.2 million.

An agile, responsive cloud platform for a changing regulatory world

As the industry regulator, the Financial Conduct Authority must continually stay on top of activity in the UK's financial markets. Its aging data center infrastructure could no longer provide the scalability and agility it needed to monitor tens of thousands of regulated firms and roll out regulatory updates at speed. Working closely with Cognizant, it has achieved a successful end-to-end cloud transformation that has delivered an agile, responsive and secure technology foundation for an often fast-changing regulatory environment.

34TB

data migrated

75%

reduction in the provisioning of Regdata application in AWS as compared to on-premise process

£1.2 million

peak annual savings

About the Financial Conduct Authority

The FCA regulates the conduct of around 53,000 financial services firms in the UK to ensure that financial markets work well. For more information, visit https://www.fca.org.uk/.

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