



Barclays' Post-Trade Core Services Technology Transformation with Camunda



Key Benefits

- Enhanced resilience
- Improved visibility
- Better business/IT alignment
- Exception handling efficiency
- Scalable infrastructure
- Microservice flexibility
- Modernized legacy systems
- Regulatory compliance
- Compliance readiness
- Streamlined processes
- Plugged legacy system skill gap

Camunda Product

- Camunda Platform
- Modeler
- Optimize
- Camunda 8

Barclays post-trade services use Camunda to realize its goals of technology resilience, greater process visibility, improved efficiency, future scalability, and maximum flexibility

Barclays Investment Bank embarked on a transformative journey to modernize its post-trade core services technology, including all activities that enable the safe transfer of ownership of securities from the buyer to seller in return for payment—clearing, settlement, custody and asset servicing, plus reporting.

The bank's post-trade technology was burdened by legacy systems, making it expensive to adapt to new regulations and increased trade volumes. The existing infrastructure, comprised of monolithic systems and a patchwork of vendor platforms, was hard to support, costly, and risk prone. Barclays needed to be ready for the future and to achieve long-term agility and innovation, so it turned to Camunda's integrated, flexible, full-stack process orchestration and automation platform to provide the solution.

The challenge

"Lack of straight-through processing and an environment of exceptions, and then having to do reconciliations and resolve breaks, which is very time-consuming, takes the focus away from settlements and the efficiency around it."

– **Shakir Ahmed**, Director of Operations Technology and Strategy, Barclays.

- Legacy systems offered limited functionality, were costly to maintain, and were difficult to scale, with little technical support and a recruitment bottleneck due to the specialist knowledge required to update specialist systems.
- Regulatory scrutiny demands accurate data, visibility, and control over trade processes.
- Legislative changes highlighted the need for compliance readiness. The time it takes to settle a trade can significantly influence portfolio and trading decisions. Shrinking settlement cycles in the compulsory commitment to T+1 (trading day plus one business day) require prompt identification and rectification of trade breaks and mistakes. To comply with the T+1 Exchange Act rule, the reduced settlement window required prompt identification and remediation of trade breaks for various financial instruments.
- The need for a more efficient exception handling process and better alignment between various business units involved in post-trade processing, while also incorporating flexibility for human intervention and handling operational issues.

The solution

“With Camunda, we now have a lot more visibility and control... our run the bank partners who maintain the platform, it's much easier for them to see what's going on. If there's a question in a certain trade, they now have tools at their disposal to see where exactly the trade is stuck.”
– **Shakir Ahmed**, Director of Operations Technology and Strategy, Barclays.

The implementation began with cash settlements, handling about 35,000 daily processes with plans to scale up to half a million per day. A significant focus was placed on orchestrating the trade processing lifecycle, ensuring that functions such as trade capture, validation, enrichment, matching, and settlements were executed in a controlled and transparent manner.

“One of the functions that I was very excited about when I first opened Camunda Operate was the ability to go and replay from a failed step. It's extremely easy; you click on the failure, the exception, and you can see why it failed. That's so valuable.”
– **Larisa Kvetnoy**, MD Post Trade Technology, Barclays.

Barclays opted for a strategic overhaul of its post-trade technology landscape by:

- Decomposing monolithic systems into microservices, each representing a core function.
- Implementing an orchestration layer with Camunda to manage the interactions between services.
- Choosing process orchestration with Camunda over choreography to gain better control and visibility.
- Utilizing a message bus for persistent and distributed communication among services.
- Centralizing exception handling to streamline error management and recovery.
- Leveraging Camunda 8 cloud-native capabilities for scalability and resilience.

The results

Barclays' modernization efforts, with Camunda, led to:

- Enhanced system resilience with integrated backup and recovery capabilities.
- Increased operational transparency with self-documenting process workflows.
- Refined exception management through real-time alerts and detailed failure analysis.
- Scaled to process tens of millions of transactions daily with a robust architecture.
- Introduced a flexible microservice environment, enabling tailored deployment and segmentation.
- Modernized legacy platforms to a contemporary system, lowering maintenance costs, improving scalability, and facilitating technical support and knowledge transfer.
- Ensured regulatory compliance with precise data management and comprehensive oversight of trade processes.
- Maintained readiness for regulatory changes, optimizing trade settlements for reduced cycles like T+1 and expediting discrepancy resolutions.
- Streamlined interdepartmental collaboration for more effective post-trade processing.

A future with Camunda 8

Barclays plans to retire all legacy platforms and fully migrate to the new service-oriented architecture. The bank is also exploring the use of generative AI, with Camunda 8, for tasks like trade validation and swift error identification, aiming to further improve productivity and efficiency.

Barclays' journey towards a modern post-trade technology landscape is a testament to the bank's commitment to staying at the forefront of financial services. By adopting a mix of orchestration and microservices, Barclays has positioned itself to manage trade processes better, adhere to regulations, and meet the demands of global markets, with a success that indicates a promising and sustainable future for the bank's post-trade services.

Barclays

We are a diversified bank with comprehensive UK consumer, corporate wealth, and private banking franchises, a leading investment bank, and a strong, specialist US consumer bank. Through these five divisions, we work together for a better financial future for our customers, clients, and communities. We have a clear plan to improve our operational and financial performance, and improve total shareholder returns. To do so, over the next three years we will make Barclays Simpler, Better, and More balanced. This will enable us to improve our customer

service, provide more support to consumers and businesses, deliver higher quality income growth, and build returns.

Camunda

Camunda enables organizations to orchestrate and automate processes across people, systems, and devices to continuously overcome complexity, increase efficiency, and fully operationalize AI. Built for business and IT, Camunda's leading orchestration and automation platform executes any process at the required speed and scale to remain competitive without compromising security, governance, or innovation. Over 700 companies across all industries, including Atlassian, ING, and Vodafone, trust Camunda with the design, orchestration, automation, and improvement of their business-critical processes to accelerate digital transformation.

Some of the world's leading banks and financial service providers, such as NatWest, Goldman Sachs, Santander, and Barclays, drive lasting value with Camunda's end-to-end process orchestration solution. According to a new [Forrester TEI report](#), Camunda customers experience a reported savings of \$15 million in process quality improvements and over 20,000 hours of development time.