

10XBANKING.COM

# 10x Banking Powers Financial Services Transformation with Confluent



## Headquarters

London, England, United Kingdom

## Industry

Banking, FinTech

## Challenge

Modernizing legacy systems for traditional banks to enable them to innovate faster, deliver hyper-personalized customer experiences, and compete with digital-native banks.

## Solution

Deliver a cloud-native SaaS solution—powered by Confluent Cloud’s real-time data streaming platform.

## Results

- Reduced costs with increased agility and faster time to market for traditional banks
- Achieved better hyper-personalized experiences for banking customers
- Delivered a resilient and highly available platform
- Enhanced enterprise-grade security
- Reduced TCO with simplified management

Founded in 2016 by Antony Jenkins, the former CEO of financial services giant Barclays, 10x Banking helps banks to deliver timely, hyper-personalized experiences and innovative products to their customers. 10x’s mission is to help banks deliver “10x” their service quality and revenue by reducing total cost of ownership (TCO), diversifying product offerings, and accelerating time to market through digital transformation. 10x does this with SuperCore®, its cloud-native banking platform delivered as software-as-a-service (SaaS).

10x leverages Confluent Cloud to capitalize on a microservices-based architecture with API-first design that uses data streaming to power the SuperCore platform.

Today, Confluent Cloud empowers 10x to help traditional banks compete with digital-native banks, drive faster innovation, and deliver world-class customer experiences—all based on real-time data.

*“Banks can’t expect to go on operating on outdated technology. Traditional banks can’t expect to move into the future without using data in real time. Confluent helps us set our data in motion.”*

— VICTORIA MARTIN, HEAD OF COMPLIANCE AND REGULATORY AFFAIRS AT 10X BANKING



## The Business Challenge and Solution

In this digital-first era, customers expect better, faster, easier *everything*. And banking customers are no different. They expect to understand if they qualify for a lower mortgage rate *before* they apply, have hyper-personalized cash-back rewards *proactively* provided to them, and feel confident that suspicious activity will be flagged and stopped *before* they know about it.

To cater to this customer-centric world, challenger banks—aka digital-native banks—are fueling a new wave of digital disruption in the financial services market. Unencumbered by the constraints of legacy infrastructure and core systems, digital-native banks are leveraging cloud-based technologies to deliver unparalleled customer experiences, and bringing hyper-innovation to an otherwise traditional market.

But how do traditional Tier 1 banks keep up?

According to Mark Holt, chief product and engineering officer at 10x, this requires having access to real-time data, the right technologies and partnerships, and strategically moving applications to the cloud.

“What’s needed is a highly scalable and agile data platform with loosely coupled architecture that will enable you to build applications on top of it with the resilience and reliability that banks need and regulators require,” said Holt.

Unlocking the value of data enables banks to solve challenges across their business—from operations (like enabling real-time payment reconciliations), to compliance (making sure customer addresses are accurate across all services), to competition (onboarding customers faster), and meeting customer demands (providing more personalized products and services). The result? Banks embracing digital disruption and running more efficiently, while also enhancing the overall customer experience.

10x helps banks make this transition by leveraging its cloud-native core banking platform SuperCore.

Powered by Confluent Cloud's data streaming technology, SuperCore enables banks to deliver products, services, and customer experiences faster and more cost-effectively.

*"Gone are the days of card computing and early internet banking. We're now in the era of banking-at-your-fingertips through modern real-time applications. Customers expect banking to be flawless with financial products that are targeted and hyper-personalized for their individual needs."*

— MARK HOLT, CHIEF PRODUCT AND ENGINEERING OFFICER, 10X BANKING

## The Technical Challenge and Solution

Tier 1 banks have found it extremely difficult to remain agile and respond quickly to the rapid changes shaping the future of banking. What's holding them back? Reliance on legacy IT infrastructure and core systems.

"There are two key challenges with legacy technology," said Stuart Coleman, head of data and analytics at 10x. "First, the cost and risk of making changes to large monolithic applications is prohibitive. Second, you end up with your data locked up in a particular technology and vendor, which can be very challenging to evolve."

When 10x started building SuperCore to help banks create and innovate financial products faster, it quickly realized the need for leveraging a microservices architecture and API-first design.

"We think of microservices as a way of decomposing different business functions into individual services. This means each service can evolve separately, so we can make changes faster, and better serve our clients' needs," Coleman said. "To do that, we needed data that was liberated from the core systems. And from almost day zero of building the architecture, we made a decision that we were going to make sure that all of that data was published as events."

This also meant finding the right technology partner to enable data in motion at massive scale.

As 10x began evaluating event-driven technologies, they knew Apache Kafka®—the de facto standard for real-time data streaming—was a perfect fit.

But open source Kafka isn't easy to manage or scale.

"Our core competency and mission is to make banking 10x better. The mechanics of running a complicated distributed system like Kafka is not where we wanted to focus our attention," Coleman said. "We needed a solution which ran Kafka as a completely managed service, which extracted all of the operations of running it from us and that's why we chose Confluent. We can provide much more value in enabling our clients to provide new experiences to their customers by having Confluent manage Kafka for us."

Confluent helped 10x build an event-driven microservices architecture quickly—with enterprise-level authentication and authorization—where they could flexibly add services, which could consume and produce data and help evolve their platform.

"We needed a technology like Confluent that would work seamlessly with all of those different services. And would work and scale in the same way that those services work—modern, API-driven, and that would insulate us from having to worry about reliability and scalability issues," Holt reinforced.

Today, Confluent helps 10x unlock data across any system—no matter where it resides—and create a real-time event stream that banks can plug into to build personalized customer experiences.

*"Our mission is to make banking 10x better for banks, for customers, and society. To do that, we need a cloud-native data streaming platform that is also 10x more reliable, 10x more performant than Apache Kafka."*

— MARK HOLT, CHIEF PRODUCT AND ENGINEERING OFFICER, 10X BANKING

## Making Data Easily Accessible with Confluent Connectors and Schema Registry

Creating better customer experiences for banking customers means providing 10x clients with the data they need—quickly and in real time. To do this, the microservices within the SuperCore platform needs to make data accessible to various bank source systems.

10x does this by using connectors to stream data between Kafka and other systems you want to pull data from or push data into. Confluent's ecosystem of 120+ connectors make it easy to instantly connect to popular data sources and sinks.

"The most important use case for us in the Confluent ecosystem is the use of connectors to enable us to send our clients' data directly to their systems, data lakes, or directly to their HTTP endpoints to enable real-time experiences for their customers," Coleman said.

And in a microservices architecture where events are the core of the system, it's necessary to have a strong schema, so consumers can easily consume the data they need. Confluent Schema Registry is what enables this.

"For the Kafka topics we share with our clients, Schema Registry enables us to provide a stable data interface that clients can rely on but that we can continue to evolve over time," Coleman added.

### Business Results

**Reduced costs with increased agility and faster time to market for traditional banks.** "For banks to be able to move their services to the cloud and innovate with real-time data, it's much easier to quickly evolve the products we offer. It means that they can save an enormous amount of money rather than hosting their infrastructure in their current physical data centers," said Holt.

**Better hyper-personalized experiences for banking customers.** By liberating data out of databases and onto Kafka topics with Confluent, 10x enables real-time capabilities for its clients.

"Data in motion enables our clients to build new and different experiences, unlike those available from typical banking providers. It also helps 10x to serve richer, more detailed insights to our clients. All of this is made possible by the event-based platform we built with Confluent," Coleman said.

*"We think data in motion is the core of bringing banking into a new era."*

— STUART COLEMAN, HEAD OF DATA AND ANALYTICS, 10X BANKING

### Technical Benefits

**A resilient and highly available platform.** "Confluent enables us to provide rich data to our customers so they can build any web view they want without sacrificing the real-time freshness of the data, and with no load and no risk to the core systems. With Confluent, I can't think of an issue that we've had that has impacted Kafka availability in the more than three years we've been in production," Coleman said.

**Enterprise-grade security.** "We need authentication, certification, and highly secure systems for our own compliance and obviously our clients," Coleman said. "From a security point of view, I don't know of any other vendor with a cross-cloud offering we would trust—and that our clients would trust—more than Confluent."

**Reduced total cost of ownership with simplified management.** "I know of organizations that tried to manage their own Kafka deployment, and they were still having performance and scalability issues with their cluster a year later," Coleman said. "From the perspective of getting everything set up, having Kafka as a fully managed service with Confluent Cloud has been a big advantage, especially at the start of our journey where we didn't have the experience we do now."

## Learn More About 10x

<https://10xbanking.com>