NORD/LB Supports Multi-Year, Bank-Wide IT Transformation with Confluent

With total assets of EUR 126 billion, NORD/LB Norddeutsche Landesbank is one of Germany’s leading commercial banks. The bank is in the midst of an enterprise-wide transformation program, NORD/LB 2024, in which it will invest about 500 million euros in new IT systems and digitalization initiatives.

As part of the NORD/LB 2024 program, the bank is developing a new core banking platform based on event streaming with Confluent, based on Apache Kafka®. In addition to enabling more advanced, real-time analytics across the bank, this platform will support improvements in fraud detection, customer retention, and trade/investment analysis, as well as new products that will differentiate NORD/LB from its competitors in the market.

A recent project that required data to be collected and aggregated from a wide variety of the bank’s systems underscored the difficulties that many teams within the bank face with accessing data. Significant effort was required to load, map, and assemble the data via point-to-point integrations. "We had no central way to do data analytics yet, and departments found it enormously difficult to access their own data," says Sven Wilbert, Data Manager at NORD/LB. "The process to do so was hugely involved, lengthy, and difficult."

When the new banking platform is deployed to production, NORD/LB will have in place an event-driven architecture based on Confluent that not only solves the near-term challenges of accessing siloed data but also positions the bank for long-term growth and changes in the industry. "Confluent is enabling us to address our need for a scalable, highly available messaging infrastructure that allows us to decouple our producers from consumers, setting the stage for us to be more flexible, agile, and responsive to change," says Wilbert. "And all this is without having complex dependency chains of releases, upstream systems, and data consumers that have cost us a lot of money and time in the past."
As it has for many organizations, the pandemic served as an accelerant for the NORD/LB digitalization initiative, while at the same time introducing changes in the industry that require agility to navigate. “The COVID-19 crisis has given NORD/LB the impetus to be able and willing to step on the gas,” says Wilbert. The bank has kept the NORD/LB 2024 program on track despite challenges and changes stemming from the pandemic. “At the end of our transformation, NORD/LB will be smaller with less risk, but also more efficient and powerful,” said Wilbert. “We will have powerful IT and be even more aligned with the needs of our customers. Our roadmap has not changed as a result of COVID-19; we are right on track.”

Business Results

**Competitive differentiator established.** “Confluent’s technology continues to provide the opportunity to develop competitively differentiated products for the future and is the technology we’ll take our next steps with,” says Wilbert. “With the ability to do extensive analysis of data—whether that’s data-at-rest or data in motion—we can accomplish a lot—and we can do it now and quickly.”

**Event streaming adoption streamlined.** Throughout the initial Confluent deployment, NORD/LB has received expert guidance from Confluent engineers to ensure the architecture and deployment was sound and the rollout went smoothly. “For us, it’s important to do things right once and right away, and to tackle things where it makes sense,” says Wilbert. “And Confluent is helping us do that.”

**Streaming infrastructure costs reduced.** Going forward, NORD/LB is looking to use Multi-Region Clusters to replicate data between datacenters as a way to minimize cluster downtime and reduce infrastructure costs for duplicate servers. “Keeping infrastructure duplicated and only using half means that 50% of my servers—and therefore 50% of the money invested—are doing nothing,” says Wilbert. “Money that doesn’t work doesn’t make money.”

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Technical Solution

NORD/LB started its event streaming journey with a proof-of-concept project in which data streaming from multiple sources, including Twitter, Bloomberg, and the German stock exchange, are used to power real-time analytics. Integrating real-time financial data with context-sensitive unstructured data will enable the bank to make loan decisions and extend offers based on up-to-date market information.

To ramp up, the NORD/LB team attended a Pathfinder Workshop offered by the Confluent Professional Services team. The two teams worked through what NORD/LB wanted to achieve with event streaming technology, common pitfalls to avoid, and how to move from proof-of-concept to greater event streaming maturity, with a focus on cost-efficiency and high availability. Confluent is continuing to provide implementation support and training courses as more NORD/LB teams begin event streaming projects.

Following the proof-of-concept, the bank’s next focus is the core banking system. Confluent will act as a central nervous system, providing real-time connections between systems, enabling better responsiveness and greater agility compared to the bank’s current system. “The current banking system is too expensive, too complex, and
too individualized to adapt quickly to current situations while still delivering results consistently and quickly in an efficient manner,” says Wilbert.

Initially, the bank considered implementing the new system without making substantive changes to the underlying infrastructure. It quickly became clear that this strategy would only delay the larger transformation that was needed. “If we put off updates to the infrastructure for another three years, then when the new banking system was ready, we would have another huge quagmire of point-to-point connections and file transfers and we wouldn’t have gained anything,” says Wilbert. “As a bank, NORD/LB understands that now is the time to act.”

As NORD/LB continues to develop its event streaming adoption maturity, Wilbert and his team will help drive adoption by exploring additional capabilities of Confluent Platform including Schema Registry for the management of evolving schemas and Multi-Region Clusters for running a single cluster across multiple datacenters. “Multi-Region Clusters are very interesting, but we don’t have experience with them yet,” says Wilbert. “This is an area where Confluent can add a lot of value for us with their experience.”

Looking further ahead, Wilbert’s group is now better prepared to move aspects of its data infrastructure to the cloud when the bank is ready to do so. A roadmap for transitioning to the cloud would include shifting Confluent Platform clusters self-managed on premises to Confluent Cloud. This will enable NORD/LB to take advantage of the fully managed cloud service to eliminate the administrative burden of self-managed clusters and enable teams to focus on delivering additional value-add products and services to NORD/LB customers.

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– Sven Wilbert, NORD/LB

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