Improved Customer Experience in Banking

The Real Story of One of the Largest Banks in the World

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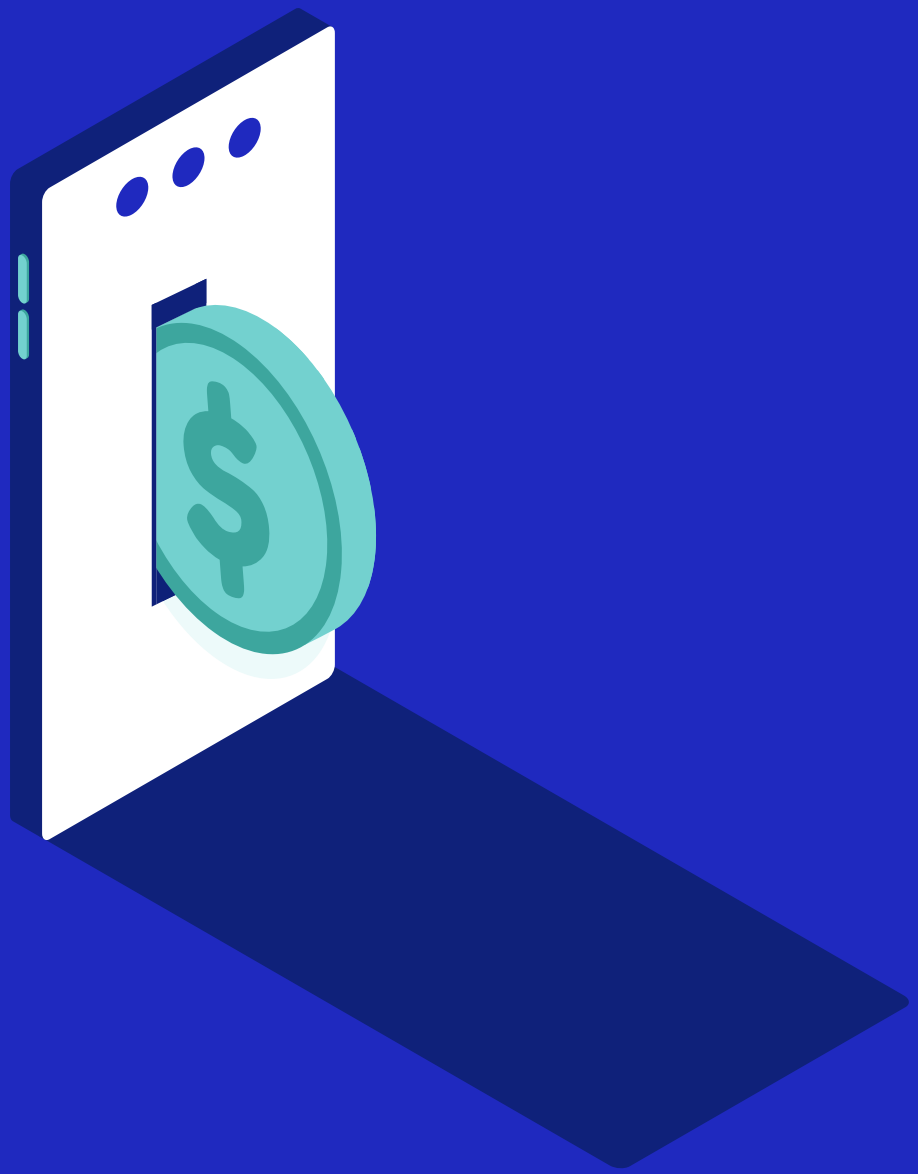


The Data Vault

As non-traditional competition enters the market at an increasing rate, banks are struggling to deliver added value to their customers and introduce new products and services in order to compete and remain relevant. Incumbent institutions are faced with the growing threat of losing the eyes of the customer as their interfaces are replaced by aggregators and other entities. The risk of being reduced to a utility that takes all the risk but gains little of the reward, is a very real concern for today's banking institutions.

In this case study, we'll summarize the experience at one the top 15 banks in the world and explain their Data Vault initiative. We discuss the business problem that needed to be solved, the unique challenges that had to be overcome, the three-part solution, the obstacles to success, and how Nuxeo became the trusted partner to deliver that solution.

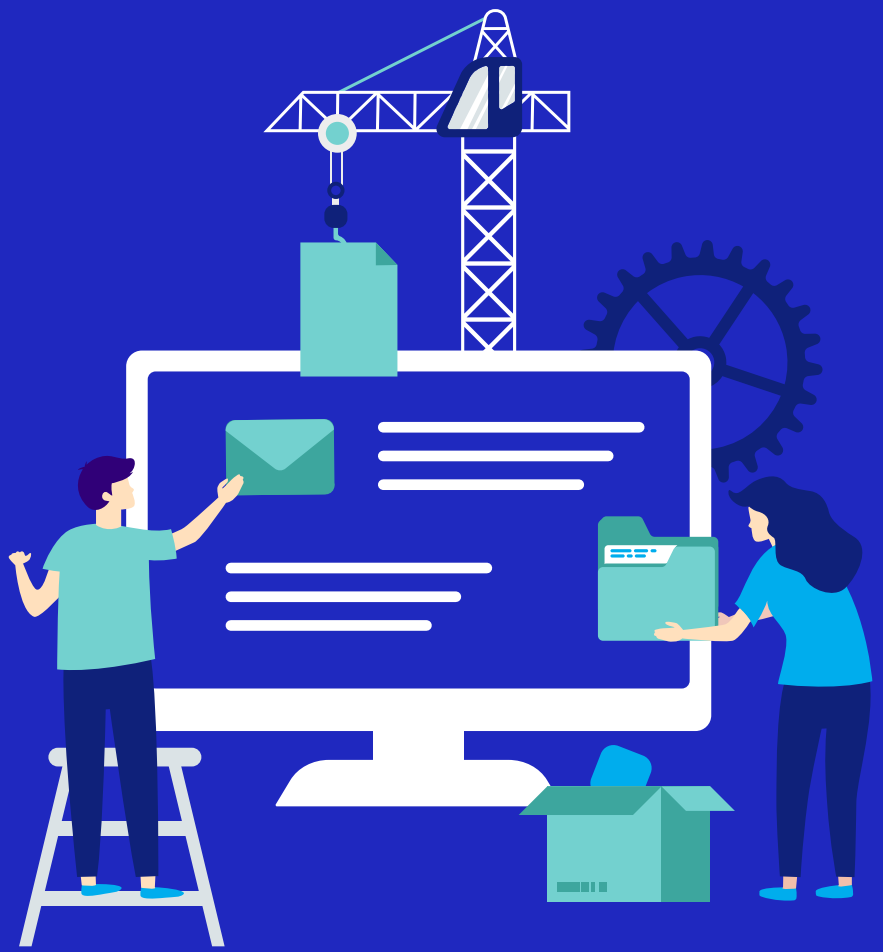
The Problem

One of the top 15 banks in the world was presented with three directives from their board:

1. Improve time to market (from months and years to weeks and days)
2. Transform the customer experience (be more like Amazon)
3. Slash costs (technology costs were too high)

However, the view of the board was that embarking on this digital transformation meant transforming their technology department. But, the real challenge was coming to the understanding that digital transformation is not just about technology, but also transforming the organization and its culture. That, for most traditional banks and financial services organizations, is a nightmare.

Transforming the organization and the culture meant changing the way things were done. This impacted the way projects were funded; the way business cases were established; as well as challenges to technology and business operations, and even dealing with regulators unaccustomed to concepts like putting customer data in the cloud. Underpinning it all was the need to move from the existing legacy IT environment, which included its mainframes, batch processing windows, and traditional relational databases. The combined state of the bank's IT landscape did not make for good starting point for digital transformation.



Through the course of this initiative, the bank learned a number of lessons:

- They initially felt they were good at digital transformation because they were good at delivering apps. What they discovered was they were simply "painting a pretty picture in front of legacy systems."
- They were losing control of the interaction with the customer. That is, with digital, the customer controls the interactions with bank. They decide what they want, when they want it, and how they want it. The mindset of a 9 to 5 branch-based operation was not going to work any longer.

The customer owns the data and they want more of it. In the past, banks controlled how much data the customer could see. In an open environment, much more information is exposed not only to customers but to partners as well. Therefore, data management and security needed to become a much greater imperative.

The importance of performance and availability became magnified. When the bank controlled the customer interactions, they could control the maximum MIPS required of the mainframes. But today, customer behavior has changed. They are constantly connected — executing business transactions, making queries, and searching the system in real-time—and this was driving enormous demand on their old mainframe systems. If the system could not keep up with demand, then there was a potential for a spiral of negative feedback from customers on social media that could damage the brand's reputation. They realized they needed to be available "real-time, online, all the time."

In order to feed this demand for information, the cost in data usage began to soar and the organization quickly realized the financial impact of evolving from a transaction-based organization to a data-driven organization.

3 Unique Challenges

With core operations based in the UK and Europe, the bank identified three unique challenges:

Competition —The Bank of England is authorizing new entrants at a rate never seen before. These new entrants have the advantage of a new culture not inhibited by legacy systems and they lead with customer experience, so they are offering something very different from traditional banks. You have niche players who are taking the most profitable elements of specific services and offering a better customer experience, and as a result, taking customers away. The risk to traditional banks is that of becoming disenfranchised and relegated to a utility.

For example, banks used to make a lot of money from foreign exchange companies, but now most customers are using Travelwise. Another example is Apple Pay, which takes 15 basis points of the interchange fee. They take no risk and use bank lines and infrastructure. Banks take the security and risk of fraud while Apple Pay takes the money. Another model is Samsung and Google Pay. They don't charge basis points, but they want access to the customer data which is very threatening to banks.

Regulation—After the financial crisis, regulators decided that too much power was concentrated in too few institutions. In the UK, banks were forced to introduce a switching service. If you open an account at a bank, you can simply say you want all your information transferred from your old bank—and it happens. The customer does not have to do anything. Prepayments, direct debit, cards, it all gets switched over. Then there is PSD2, the payment services directive. It forces banks to provide open API's to give customers, fintech companies, and others access to all the data they hold about that customer—and to be able to provide payment services on their behalf.

What this does is create a world of marketplace aggregators who are able to very simply take all the data about your account and provide a value-add-service that says "You have 250 pounds with your bank on 0.1% interest. If you allow me, I will tell you that you can get 0.5% with another bank. You press OK, and we'll take the money out of your bank and we'll move it across here because in the UK we have faster payments, which means you get real-time movement of money between banks." So, you get aggregator services that don't need a banking license. They're not regulated the same way, so for banks, this intermediation is a real threat.

There are also challenges with GDPR, which says the customer owns all their data and they have the right to be forgotten, and they can even tell you to change data. And the interesting thing about that is you need to know where the data is. One of the challenges that banks have is locating all this transactional customer data.

But then you ask, "Well, what about all the statements that you hold in PDF format, where are they, and which customer do they belong to?" Because when the customer says you have to remove them, you have to remove them.

Customer Experience—Customers are looking for different experiences, but they often times don't see the value that banks bring. They say "Well, if you keep my money safe, that's good, but what else are you doing?" Today, everything is being compared to Amazon. Customers want that proactive information rich experience. They want banks to anticipate that they are going to be overdrawn based on payment history and to help them avoid those fees. That's value-add, but it kills the traditional model of how banks make money.

The question for the bank was how do you make money if your disintermediated, and you're just providing a utility product? Add in the fact that margins are being squeezed and the high cost of regulation, and you realize banking is an expensive business to be in.

The Plan

The bank wanted to create a "Data Vault." In other words, a digital safety deposit box. But they wanted to add more value than just a place for customers to look at their bank documents. They had three goals in mind:

Business Documents—A place where the bank could make the vast amount of unstructured information they possess available to their customers.

Customer Documents—A place where customers could upload, store, and view critical personal documentation such as deeds, contracts, and insurance documents, as well as photos, bills, etc.

Compliance—Enhance their ability to meet the requirement of regulations such as GDPR, while reducing the overall cost of compliance.

Additionally, they wanted to enhance the use of metadata to allow customers to interrogate their information and gain more value. They also wanted to provide value to their small business customers to help them be much more organized about contracts and other critical information they need to store.

The Obstacles to Success

But, there were obstacles to overcome in designing and implementing the Data Vault:

Spread of Information — The bank had years of information in various formats scattered all across the organization in different systems that were difficult to access.

Data Quality — Older data values were often out of date, and in some cases, non-existent. This made compliance with regulations such as FATCA difficult.

Legacy Systems — There were six legacy archives that were obsolete and expensive to maintain.

Architecture — They needed an architecture that could enable them to ease the transition from their antiquated legacy systems without disrupting the business.

Skill Sets — Delivering things in a different way meant reevaluating their current skill sets on the part of IT, and the business as well.

The Reality

Changing the culture was not easy. So, the bank created what they called "honeypots." Honeypots were initiatives that were highly-attractive and would allow them to pioneer some changes. They were things that the business would embrace because it was delivering functionality without disrupting the business.

The result is that the bank enhanced their customer experience by delivering a paper-free environment with a single point of access for all their information with a Google-like search on unstructured documents; something that was not achievable by simply looking at a PDF document.

They also used metadata and machine learning to reexamine their historical documents and harvest a wealth of information that was used to update their data systems.

The bank was able to lower their costs by reducing their dependence on obsolete systems, while moving to a cloud-native microservices platform helped speed their time to market.

Finally, the systems helped to identify and secure documents for financial crime investigations as well as aid in compliance with GDPR.

Why a Top 15 World Bank Partnered with Nuxeo

Performance & Scalability
The bank realized that acquiring functionality is not the problem. The problem is how easily it could integrate that functionality because it's the integration that drives time and cost. In building for the future, the bank needed something that was cloud-native, that was scalable (horizontally and vertically), and that would perform and be fault tolerant by design.

Open Source & Microservices Architecture
Open Source and products built on a microservices platform were important because this would allow the bank to maintain a library of reusable API's, which would in turn speed their time to market.

Content & Data
Content and data are one of the biggest assets that a bank holds. Banks know everything about how a person behaves, what their lifestyle is because of what they do
with their money, and who they spend their money with.
The bank needed a product that would unlock the value of both structured and unstructured data and allow the creation of extensive metadata that would transform their services and add value for the customer.

Low Code
A configuration vs. customization approach was important in order to eliminate the extensive coding required to build numerous user interfaces.

Federation
Federation allowed the bank to avoid the migration of over a billion documents from legacy archives. New documents went directly to the Data Vault, but legacy documents were retrieved from their existing repositories. This allowed the bank to gain the immediate benefit of accessibility while allowing them to migrate the documents over time.

Trusted Partner
The bank needed a partner who could come in and fill the skills set gap they were currently experiencing, and they valued a partner who would question the old way of doing things and say "Why?—Why are you doing that?" They needed a problem-solving partner who could bring digital skills to the table. Real world expertise at delivering modernization at an industrial level in an open, sharing, and collaborative way.

Conclusion

Traditional banks need to ask themselves the following questions:

- Do you really understand what it means for your business to transform digitally?
- Do you really understand what it is your trying to do and how you are going to change the way you actually think about your business?

You need to be driven by the customer experience and look for opportunities in the economic life cycle of your customers to add value. And with the cost of regulation and the capital requirements, banks have some real challenges about how they make a return on equity for stakeholders. If banks end up being just a utility backend, but not the product manufacturer, they're going to be squeezed. And that's a real problem.

To learn more or to request a demo visit us at
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