

Your Core Banking Digital Transformation Report

Aspirational



Your Starting Point

You have started your digital transformation and are in the early stages of preparing for the dramatic changes that will characterize the coming

decade. As you begin to design your bank of the future, you are establishing your plan and executing on some key initiatives in the following areas:

- Your customers' experiences vary across touchpoints (from mobile banking to internet banking to ATMs and retail branches) as well as across lines of business (the experience of transacting on deposit accounts could be very different from that of loans, while mortgages could be an entirely different story).
- Your customer-facing staff (such as customer service representatives (CSRs) or call center employees) have to log in to different applications and look for information to construct a consolidated view for all the information you have about a customer. Most of your transactions are not yet real time.
- When you integrate and launch a service with a third party, you put in a lot of effort in building the integrations.
- When you launch a new product or service, you have to undertake complex development, extensive testing and reviews involving many departments, and the process can typically take several months or even years.
- You work within a traditional operating and budget cycle, which means improvements and updates often get stuck in a queue and may take a year to deploy. Further, you are hardly left with budgets for discretionary change-the-bank projects after providing for the run-the-bank activities.
- You have begun to refine your cloud strategy and adoption process but less than 20% of your workload is on the cloud.

- Mandatory processes, such as your anti-money laundering strategy or understanding your customer needs, are currently handled by each division in your bank separately, and these divisions do not always communicate effectively with each other.

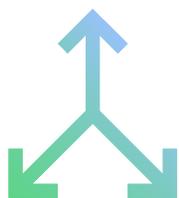
The Landscape



As banks evolve to anticipate future opportunities, they must rethink the positioning of their banking services in the new value chain, as well as in relation to the experiences demanded by consumers and clients. Going forward, banks will increasingly grapple with several fundamental questions. Not only must they figure out how to stay relevant as people's lives and relationships with money change, but banks must reassess which markets to address and which customer segments to serve. When it comes to new products, they must discern what products to offer as well as the most effective channels to target.

Consumers expect innovative experiences from every brand looking to develop a relationship with them, which means banks must carefully navigate the emerging technology landscape to meet and exceed consumer expectations. AI, for example, has the capacity to humanize and automate consumer-facing workflows and to make back-office operations more adaptive and continuously self-improving. Blockchain technologies, meanwhile, can trace the provenance and lineage of data in robust and reliable detail, building consumer and client trust. Moreover, enterprise cloud strategies – which often support 50% to 60% of a company's workload – are evolving to a hybrid cloud model that enables businesses to integrate and process greater volumes of data to better serve and anticipate a wider swath of customer needs.

Ultimately, enterprises are recognizing the power of building their own holistic, proprietary platforms that combine their unique data sets, workflows and expertise with the full range of emerging technologies and consumer platforms (Amazon, Alibaba, etc.) to generate the most personalized and actionable insights about their customers.



What's Next?

As you develop your core banking digital strengths, you will start providing your customer a uniform experience across digital and physical

touchpoints, as well as the ability to initiate a transaction in one channel and then continue or complete it in another channel. You are moving toward having a 360-degree view of the customer, allowing all your customer-facing employees to see a consistent view of their customers' banking-relevant information in one place. You are looking toward incorporating more real-time transactions as end-to-end real-time capability is a defining feature of a digitally mature bank.

As you mature, you will reduce the time it takes to launch a new product or service. Your work processes will also become more agile. Some units will even begin to experiment with DevOps, which is an approach to software development in which development and operations teams collaborate to build, test, deploy and monitor applications with speed, quality and control. As your cloud strategy continues to mature, you will move 20% to 40% of your workload to the cloud. You will develop centralized standards for compliance as each unit selects the tools and processes it prefers.

Your Action Plan

- **Overhaul your customer experience:** Identify the business domains where customer experience is a key concern and define a clear, deadline-driven plan for reimagining and improving customer service. Does your customer have the ability to self-initiate most banking transactions? Does the customer have access to information about his transactions and his balances in real time? Is there an ability to onboard customers and open accounts on a real-time basis? These questions will help prioritize which areas to target first.
- **Develop a culture of agile innovation and define an open banking strategy:** Define a strategy to build a culture that embraces the rapid adoption of new skills, workforces and ways of working. Build a strategy for exposing your bank's data and functions, and develop application programming interfaces (APIs) so that your bank's applications can communicate more effectively with one another and those in the marketplace.

- **Create a cloud, data and application transformation roadmap:** Review your entire application portfolio to identify the applications and basic functions with the potential to be moved to a hybrid cloud environment and those that will stay behind firewalls. Develop a data strategy to identify areas where AI and other emerging technologies could demonstrate ROI, and then begin implementing pilot projects in discrete areas to prove the use case for wider adoption.
- **Introduce end-to-end automation:** Identify specific business pain points that could be potential candidates for modernization and end-to-end automation. Loan origination, for instance, is an area in which end-to-end process optimization and automation could dramatically reduce the time and cost needed to complete the process.

Challenges



- **Dramatic changes in customer behaviors and expectations:** When it comes to elegant, intuitive experiences, customer expectations are high, especially since new competitors continue to raise the bar with easy-to-use self-service options and unbundled products that improve consumer choice. The next generation of customer journeys must include banking and non-banking services that offer unified, streamlined experiences that anticipate customer desires and reflect real concerns.
- **Burden of regulatory compliance:** The sheer volume and growth of compliance requirements combined with significant costs of noncompliance and rising security and fraud risks make this an area of growing focus. Regulators are driving the change as the European Digital Single Market, which includes PSD2 (Payment Services Directive 2) and GDPR (the General Data Protection Regulation), forces banks to reinvent their business models and their roles in the digital economy. PSD2 regulation means banks must be prepared to expose their services to third-party providers.
- **Digital disruptors – competitors or partners?** Fintech is proving that it's the

product, not the industry, that is ripe for disruption. Fintech and digital banks are considering wider data sets that include information like social media data to make credit-related decision making more holistic and expand into underbanked populations.

Growing collaboration between banks and fintechs is starting to allow incumbent banks to accelerate innovation plans while enabling fintechs to benefit from bigger banks' customer bases, regulatory expertise and trusted advisor reputations. Tech giants like Google, Apple, Facebook and Amazon are also making big plays in banking. For example, in 2018, Google launched a new payments platform, Google Pay, while Facebook runs a peer-to-peer payment system via Messenger and recently announced plans to create its own cryptocurrency, called Libra. Apple meanwhile announced it will roll out a new Apple Card, a fully functional credit card in collaboration with Goldman Sachs.



Bringing It to Life: Case Studies

1) Using blockchain to make cross-border transactions more efficient, secure and accessible

Problem: Banks have traditionally been the facilitators of trade deals; however, they have not evolved their trade finance practices as international trade has changed over the past years. Now trade finance is either not scalable for banks or too complicated and costly for the majority of companies. Additionally, the legal processes involved in international trade deals are often lengthy and cumbersome, preventing companies from doing business in an agile way.

Solution: Created in 2017, Trade International is a joint venture between 12 leading European banks developed to facilitate trade finance. With IBM, Trade International developed a blockchain trading platform on the IBM Cloud that uses smart contracts and distributed ledger technology to make cross-border transactions more efficient, secure and transparent. Now 70% of small- and mid-sized businesses can access trade finance.

2) Using AI to convert more home loan applicants into customers

Problem: To complete a home loan application on Bank USA, consumers initially had to answer questions on more than 40 core topics. Bank USA

wanted to explore a platform as a service (PaaS) cloud development model to operate more efficiently, foster greater innovation and accelerate its ability to go to market with new features and products.

Solution: With an IBM Cloud environment that included an AI-powered virtual assistant that supports the bank's online home application, Bank USA was able to launch several new initiatives. After implementing the AI assistant, Bank USA increased its conversion rate by 15% and achieved an 80% customer satisfaction rate.

3) Using DevOps to improve code quality, reduce user downtime and make employees more productive

Problem: Facing changing market requirements and regulations, New Insurance Inc. recognized a need to accelerate its ability to bring new products and services to market and support new channels of customer interaction.

Solution: New Insurance Inc. worked with IBM to enable an IBM DevOps approach to application development and delivery across its distributed and mainframe environments. New Insurance has used IBM's DevOps approach and improved code quality by 50% over three years, reduced user downtime by 70% and moved 58% of its teams to the top quartile in key productivity measures.

- While 65% of retail bankers believe they deliver excellent customer experience, only 35% of consumers perceive their experience as excellent.
- The financial services sector experienced 65% more cyberattacks than the average organization across all industries.
- About 80% of the world's data is tucked behind the firewalls of organizations.

Source: The Cognitive Bank enabled by Hybrid Cloud: An IBM point of view, 2019.