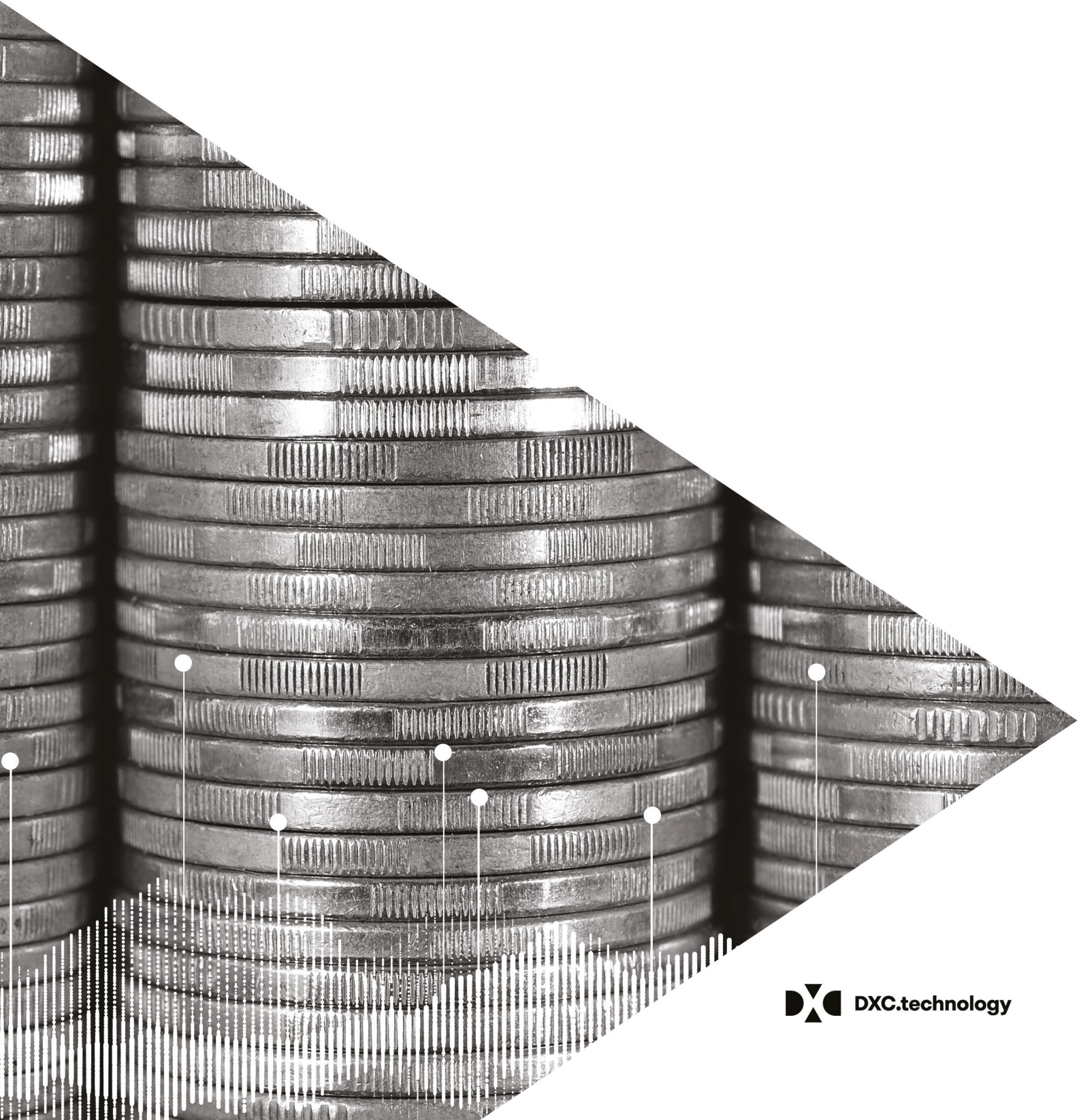
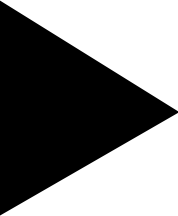


# Master digital banking to succeed in financial services





Everything's changing in financial services — including business models, regulations and competitors. Traditional financial services providers can't afford complacency. To stay competitive, they must respond.

One powerful way forward is to become a platform business. This involves rethinking the traditional value chain, as well as the organization's place in it. Bankers should determine which services they can provide efficiently and which they should source from others. For most, this shift will mean adopting digital platforms that are integration-centric and can leverage analytics, artificial intelligence and automation. Banks will differentiate on their ability to put a more integrated information picture in place that enables the bank to extract, collaborate and operationalize insights.

When financial services providers take the best of what they have today, use a digital platform to team with others and amplify their combined strengths, they can secure a strong new position in a reconstituted ecosystem.



## **28.5% of banks report that over half of their new IT initiatives are driven by digital transformation.**

Source: IDC, U.S. Banking Update: Opportunities and Challenges for IT in 2018, Jerry Silva, (Doc #US43348018 / Apr 9, 2018)

To thrive in today's rapidly changing financial services market, executives need to rethink banking's core value chain and their place in it. Providing end-to-end services made sense in the past, but today's market requires bankers to determine the services they can provide effectively and those that should be sourced from partners.

Central to success will be adoption of a new digital platform that makes it possible to embrace technologies such as analytics, artificial intelligence (AI) and automation, while using APIs to do business with other suppliers and remain flexible in this fluid environment.

After all, everything is changing at once. Even as the industry deals with increased regulatory burdens and capital restrictions, demographic changes are ushering in a digital lifestyle and driving down trust and loyalty, and a challenging macroenvironment is leading to lower returns, increased operating costs and systemic financial risks.

New business models are emerging, including platform businesses, peer-to-peer lending, crowdfunding and mutual models. These come alongside innovations such as distributed ledgers and cryptocurrencies. For traditional financial services players, these changes create exciting new opportunities, but also raise serious risks.

Among the new risks is the emergence of fast-moving, innovative and disruptive competitors that include:

- **FinTechs:** Threatening banks with disintermediating profitable customer-facing business while avoiding capital-intensive areas
- **Nonbank competitors:** Providing services for the customers of a single retailer, automaker or other company not traditionally thought of as a banker
- **Payment services and money-transfer networks:** Inserting themselves into online shopping and other transactions
- **Digital-only banks:** Competing on price, free of the high cost of operating brick-and-mortar branches
- **Big Tech:** Making serious inroads into payments, loans, credit and savings

The digital experiences and low costs offered by new competitors have also raised the expectations of banking customers. Now accustomed to transactions that are instant, mobile, easy, private and secure, customers expect their banks to offer the same. Yet these are services that many banks — held back by legacy systems, persistent data and organization silos and a lack of change capacity — cannot deliver. Most banks' core systems are large, complex, monolithic and anything but agile.

### **No time for complacency**

Given so much change, financial services providers must move quickly. Competitors intent on disrupting the industry's traditional value chains are stealing the high-return-on-equity (ROE) parts of that value chain while leaving the low-ROE parts to incumbents. Their groundbreaking work is transforming the role of market participants and fomenting profound structural changes.

For an example, consider how FinTechs are reimagining the value chain around lending. Traditionally, a bank's value chain for loans extended from the point of origination to its servicing. FinTechs, however, are adding other services, including the securitization of loans, extending the loan value chain beyond mere originating and processing. The days when banks could push back to preserve their traditional value chains have passed. Instead, their only real option now is to determine what new roles they can play.

The first step is to identify the steps in the transformed value chain. Then banks can determine where they can and should participate. One significant factor in that determination is efficiency. It's an area where banks may find themselves at a disadvantage compared to FinTechs that can apply new technologies — including advanced analytics, machine learning, robotics and blockchain — to automate processes and eliminate middlemen.

If a bank can up its game, implementing these technologies as effectively as FinTechs and combining it with their scale, that could represent a new opportunity. And if they cannot, that could represent a different opportunity, one in which banks bring their scale to partner with FinTechs rather than competing directly.



## **60% of U.S. banks have some level of cognitive or artificial intelligence in production or in the process of implementation.**

Source: IDC, Results from IDC's Industry IT and Communications Survey — U.S. Retail Banking: Transformation Takes Center Stage Improving Experiences for Customers and Employees, Marc DeCastro (Doc #US44071418 / Jul 17, 2018)

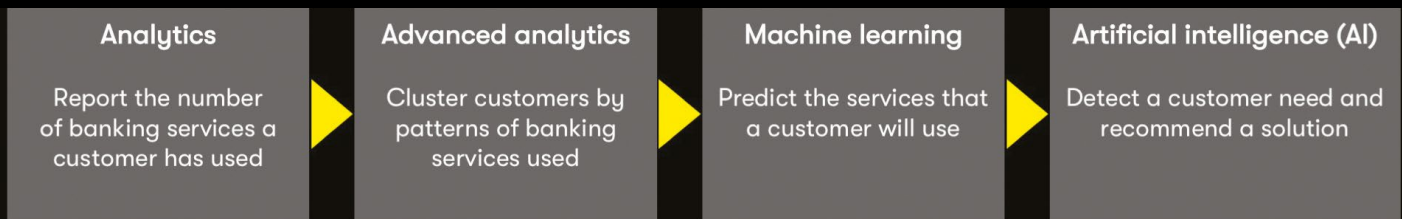
Profitability is another key consideration. What are the most profitable steps in the new value chains? And can a bank or capital-markets provider provide these steps as well as, or even better than, the competition? This is perhaps one of the easiest determinations, as most banks already understand their cost basis.

Regulatory compliance also has to be considered in banking's new value-chain calculus. Here's an area where traditional banks have a leg up. They're old pros, having complied with industry and government regulations for decades. FinTechs, by contrast, are compliance newbies, even though some are now large enough to attract the attention of regulators. Banks should see this as a competitive advantage; they possess both the expertise and supporting infrastructure to address regulatory requirements.

Ultimately, the question about human resources will need to be examined. There is a global shortage of skilled IT workers, especially in new and emerging areas such as big data, robotic process automation (RPA) and AI. As a result, few banks now possess the skills they'll need to transform themselves into digital businesses.

## How AI improves banking

Customers know their bank, but how well does the bank know them? Banks want better relationships with their customers to provide more personalized and customized services. Artificial intelligence (AI) can help banks understand their customers in powerful new ways.



Making sense of the terms analytics, advanced analytics, machine learning and AI in banking.

### AI can help banks:

- **Be more trustworthy.** AI can detect anomalies in streams of financial data and make it easier to comply with anti-fraud regulations. By getting better at spotting fraud, banks increase compliance and strengthen their customers' trust.
- **Be more efficient.** AI can forecast demand and narrow operational choices to options that will optimize tasks such as staffing and branch location planning. Banks become more efficient by eliminating wasteful practices from consideration.
- **Be more understanding.** AI can learn to hypercustomize customer interactions. It can improve risk calculation based on personal behavior. It can infer a customer's need and recommend the next best offer. A bank's system "learns" to understand the customers and offer exactly what they need.
- **Be more helpful.** AI lets banks provide personalized services in real time. Customers showing interest in high-end purchases online may be candidates for services such as preapproved internet banking offers, with loan deposits available within seconds of completing the transaction. When a bank responds quickly, customers stay happy.
- **Apply AI as a differentiator.** AI can mean competitive advantage. Banks should find areas of the business to make as smart as possible as quickly as possible. They can identify the data stories (such as detecting fraud) that might make a difference. Then banks can test their ideas using utilities and small experiments, learning and adjusting along the way.

The right culture is essential, too. Digital businesses are fast, flexible and open to experimentation. Banking's culture, by contrast, is traditionally slow and regimented, reflecting the industry's aversion to risk, culture of control and overriding need for stability.

Customers may not have always enjoyed this pace, but they were willing to put up with it, partly because it provided stability and security, and partly because they had no choice. Today customers can get banking services from FinTechs that run like startups — indeed, many are startups. These companies work fast, utilize new methodologies such as Agile and DevOps, and accept failure as an unavoidable, even educational step to innovation.

### **The way forward**

For financial services providers, one way forward is to move away from monolithic and inflexible legacy systems and toward cloud-based resources. By reconstituting their underlying systems to reduce data friction and improve the pace of operationalizing the insights that the data provides, banks can themselves become agile digital organizations.

This means having a laser focus on the information itself. The lack of integrated data means large teams simply collate and report data. It also means many banks don't truly understand their customers, nor do banks understand how to compose information services to deliver personalized services. They need to harness contextual data to determine customer preferences. For example, is the customer a heavy mobile user, a web user, or both? When and where? An analysis of spending habits might indicate a pending life event, such as having a baby. Does the customer want to set up a college savings plan?

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## **Virtual assistants pay off in banking**

Virtual assistants and chatbots manage human interactions through voice or text chats, and they can bring immense value to financial institutions. By automating many functions for both internal employees and external customers, they also help reduce costs, increase responsiveness, and provide consistent content and service levels.

Following the old 80-20 rule, banks and capital markets providers can use virtual assistants to automate the 20 percent of their content that generates 80 percent of the request volume. This can lower costs while freeing human workers to handle complex, value-added interactions.

An optimal human-machine mix will be vital. For example, while chatbots can't yet replace humans

in the customer-support center, that doesn't mean bankers should wait for perfection. Instead, they can start by automating the most mundane and repetitive tasks, such as initial point-of-contact interactions. Then, over time, they can apply artificial intelligence to increasingly complex tasks such as understanding the intent of interactions.

Looking ahead, virtual assistants could offer increasingly natural interactions. Thanks to advances in natural language processing, it could soon be difficult to distinguish between virtual and human conversations. This advance, handled carefully, should help financial services providers operate more effectively, improve employee interactions, and keep customers happy.

Banks have a treasure trove of customer behavioral data. They can analyze a customer's habits and use the insights to help improve the customer experience, provide personalized recommendations and drive greater share of wallet. The next phase of customer experience will be shaped by understanding and/or inferring "intent," and cognitive technologies are the enablers.

To make this happen, banks must "componentize" existing systems, then break out components into interchangeable modules or services. Banks can also become enablers for partners looking to create new products and services. This shifts a bank's underlying sourcing model from business process outsourcing (BPO) to business process services (BPS) – and, ultimately, to business processes as a service (BPaaS).

Automation is important, too. Many banking processes can be automated, freeing human workers to handle exceptions. However, that will require new digital platforms capable of combining analytics, automation, AI and Lean processes to dramatically improve performance, functionality and uptime. Such intelligent-automation platforms can also prepare banking data for machine learning systems, neural networks, text-to-speech, advanced decision-support systems and other advanced applications.

Rather than continuing to provide all end-to-end services themselves, banks can instead use APIs, combining their own data with both data and services from third parties to create innovative capabilities. In some cases, third parties can provide far better services than banks can create themselves. Conversely, banks could also provide best-of-breed capabilities as services to others. However, this would require making their core systems accessible to outsiders, something banks have rarely done.

As part of this shift, core financial systems and capabilities can become "consumable" via API-driven interfaces, creating specific outcomes. These core systems, such as payments and mobile wallets, essentially become services that both a bank and its third-party providers can consume. Conversely, services from third-party providers can be integrated into banks' own platforms. This may sound daring, but in fact many tech giants – Facebook and Amazon among them – already do this, building new capabilities with APIs that can integrate and interact with capabilities supplied by third-party providers.

Providers can also become partners. Some banks have invested in FinTechs, adopting an attitude of "If you can't beat them, join them." This should facilitate the development of important new services, including "know your customer" (KYC) and new accounts. A single bank can essentially stitch together a passel of services, then present them to customers under a single bank brand.



**By 2021, 25% of top global transaction banks will use blockchain networks in production.**

Source: IDC FutureScape: Worldwide IT Industry 2018 Predictions (Doc #US43171317 / Oct 30, 2017)

# Modern digital platforms power up banking

A platform business in financial services is a new and different business model. Unlike a traditional bank, a platform business orchestrates the financial and nonfinancial services ecosystem that serves the customer. It's a considerable feat, considering that products, services and expertise increasingly come not from the platform, but from the growing ecosystem of service providers.

The new generation of large-scale financial services platform organizations — including Alibaba, Amazon, Google and Tencent — are not banks, and they may never be. But increasingly, they're serving the many areas that are underbanked. Like platform businesses in other sectors, they must transact efficiently, constantly promote innovation and evolve ecosystem participants.

These companies also transact efficiently across a wide range of channels — not just currencies, but also experiences, reward points, reputation indicators, credits, tokens and resources. They promote innovation constantly, using APIs and licensing to make their process, software and data assets available, sensing where innovation demand is highest, and seeding building blocks to enable ecosystem participants to build on them. They constantly harvest new financial products and service components — such as APIs, interfaces, functionality, data sets and algorithms — then “commoditize” them as new building blocks for the ecosystem. They also support ecosystem participants, helping them improve their service delivery and giving them opportunities.

These large-scale challengers demonstrate how essential modern intelligent, autonomous and increasingly distributed digital platforms have become. This is the financial services platform business of the future.

*Leading Edge Forum (LEF) is DXC Technology's independent cross-industry think tank.*

## Platform as destination

Is taking this long journey worthwhile? We think so. At the end of the digital-transformation journey, financial services providers will enjoy a new position in their reconstituted ecosystem. They'll fully understand their position in that value chain, their competitive advantage and areas of specialization, and their need to partner with third parties.

This reassessment of the value chain can also free banking and capital markets organizations from the need to provide all services end-to-end. Instead, they can add open APIs that allow trusted third parties to provide various microservices.

The need for an underlying platform should become clear, too. Such a platform will be flexible, highly automated and able to leverage modern development techniques — such as Agile, DevOps and Lean — that help banks react quickly to market changes.

The need for other new technologies should become clear, too. These include blockchain, especially in commercial banking, where the technology enables bankers to more directly share data with customers quickly and securely. Another helpful new technology is machine learning. It can boost security with anomaly detection and help identify new cross- and upselling opportunities.

Banks that reassess their value chain and create new supporting platforms can focus on their strongest capabilities for a competitive advantage. They can assign other, nondifferentiating capabilities to third-party partners. They can use the cloud to lower capital expenses, improve scalability and flexibility, and maintain high levels of security and privacy.

New systems can dramatically boost customer satisfaction. With the right systems, every customer interaction and process can be automated, leading to quicker, more efficient transactions. Customers can also enjoy greater responsiveness from their banks and improved access to their account information — getting answers in minutes, not days.

Finally, the right platform can help banks grow through mergers and acquisitions, making it far easier to integrate disparate systems.



## Silos no more: from security to DevSecOps

Financial services providers have been good at building IT silos, and that's too bad, because in their transition to digital businesses, these organizations will find those silos to be impediments. Silos, whether for data or organizations, were useful when banks ran their core systems on rigid, rules-bound mainframes. But in today's fast-moving, fast-changing marketplace, those silos are akin to giving a 100-pound dumbbell to a track sprinter.

Over the last few years, the DevOps movement has demonstrated the power of breaking down IT silos. By encouraging greater cooperation and collaboration

between developers and operations staff, two groups that had formerly been separated by silos, DevOps helps organizations move quickly and innovate faster. Now a similar movement is coming to cyber security.

Known as DevSecOps, this movement aims to enable three IT groups — development, security and operations — to work together and deploy secure systems faster and better than ever.

Importantly for banking, DevSecOps also ensures that applications of a system have the instrumentation needed to track transactions from application to application. This creates a log, or “digital trail,” that can then be reviewed by machine-learning systems to suggest better and safer ways to run the workloads in the future. Also, machine learning can add continual improvements, creating a banking platform that gets better with time.

### Getting started

Ready to transform your financial services organization for today's new digital value chain? Then get started with five basic steps:

- 1. Assess yourself.** What's your current state? Where do you excel? Where are your opportunities for partnerships? Are there services you could offer others? Where are your silos, in terms of both data and organization? Which geographies do you serve, and how might that change in the future?
- 2. Analyze the competition.** Who's out there competing for your business? What threats could you face, in which markets? But also, are there competitors that could become partners? For example, are there FinTechs who offer services cheaper or faster than you can, but who would be willing to partner for your greater reach?
- 3. Be compliant.** Reconsider steps 1 and 2, this time through the lens of regulations, both those you must comply with now and those you may face in the future. Where are the challenges? And where might new opportunities exist?
- 4. Consider growth.** Does your organization seek growth, and if so, how? Organically, through M&A activity, or some other way? However you answer can affect your end state (see step 5), your potential partnerships, even the technologies you choose to deploy.
- 5. Develop your end-state vision.** What does your organization want to be when it grows up digitally? The wise approach involves putting customers at the core, then developing services that serve their needs.

Set incremental steps to reach your destination. Prioritize the capabilities and functions you hope to deliver, deciding which should come first, second and beyond.

Then create a detailed execution plan to get there, taking advantage of modern methodologies such as Agile, Lean and DevSecOps. These involve new cultural ways of thinking and acting, but done right, they can help your organization build, test and deploy with automation, delivering benefits at the fast pace your customers now demand.

## How DXC and its partners can help

DXC Technology is a leading provider of banking software and front-office managed trading solutions. We support banking and capital markets clients and have more than 30 years of industry experience and specialized services and resources to make transformation happen.

To help banks further, DXC has created an ecosystem of partners that co-innovate and jointly deliver solutions. They feature some of the industry's top providers, including AxiomSL, MetricStream, NCR and SAP. Also, DXC and HCL Technologies operate a partnership, CeleritiFinTech, that offers a wide range of banking systems and services, including infrastructure as a service.

Strategic acquisitions are another important element of DXC's offerings for banking and capital markets. Our recent acquisitions include Fruition Partners, the leading provider of technology-enabled solutions for the service management

sector and the largest ServiceNow-exclusive service management consulting firm. We also acquired Fixnetix, the leading provider of front-office managed trading solutions in capital markets.

DXC has created a next-generation services delivery model to provide intelligent automation at scale. Called DXC Bionix™, it leverages analytics, artificial intelligence and automation to provide greater insight, speed and efficiency. It's underpinned by Platform DXC, our new digital-generation delivery platform. Platform DXC enables us to quickly build and deliver offerings and solutions that are partner-engineered, at scale and repeatable.

Now is the time to act. Don't be disrupted — be the disruptor. Let us help you innovate and transform to differentiate with speed and quality. That's DXC. That's Digital Delivered.



Learn more at  
[\*\*dxc.technology/banking\*\*](https://dxc.technology/banking)

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