

The rise of incremental core transformation: Taking a different path to modernization

Help unlock new revenue streams and lead in the future of banking

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Executive summary

While modernization has often been associated with core replacement initiatives, that's no longer the case for many banks. Modernization journeys are underway for the majority of banks* – but today they extend far beyond the core, encompassing the entire banking platform.

With a broader definition of what modernization entails, banks and fintechs are moving away from high-risk, "big bang" core replacements and towards a more gradual, phased approach.

Today, many banks are broadening their approach to include incremental, componentized modernization strategies. This enables institutions to evolve their architecture step-by-step while maintaining business continuity.

As a result, banks are gaining greater flexibility in how they modernize and how quickly they can bring new capabilities to market.

Nearly

two-thirds

of banking executives will start their modernization journey by the end of 2026*

This momentum reflects the growing urgency to modernize.

*Source: *Global state of bank modernization & technology transformation survey,* April 2025. Conducted by TechStudio, an Energize Marketing company, commissioned by FIS. The survey comprises 300 banking executives across North America (70%) and Asia Pacific (30%).



Banks are rethinking modernization

Drawing on industry expertise and insights from a survey of 300 banking executives, conducted by TechStudio™, an Energize Marketing® company, and FIS®, this e-book explores four critical questions:

- Which modernization strategies are institutions adopting?
- Where should they focus first?
- How can technology enable future readiness?
- How can banks and fintechs partner effectively to ensure success?

Time is of the essence. Institutions recognize that modernization is essential to defend against fraud and cyberthreats, remain competitive, and unlock new revenue streams. Increasingly they're embracing strategies that avoid the pitfalls of the traditional big bang approach, positioning themselves to modernize with greater agility and less risk.

Modernization in action:
The time is now

Modernization has long been a priority for banks and fintechs. But what was once a task for the future is now an imperative. Facing rising risks, more demanding customers, and increasingly nimble competitors, institutions can no longer afford to delay addressing the legacy infrastructure, disjointed data systems, and internal readiness gaps.

To remain competitive, firms must deliver the real-time, digital-first experiences their customers expect – now.

The good news: banking executives recognize the urgency. The better news: they're acting on it. Nearly two-thirds of executives plan to begin modernization projects by the end of 2026.

Even those institutions with longer timelines are already moving forward. 99% of all institutions surveyed have either completed or initiated business case planning for modernization.

This momentum reflects growing pressure to support real-time capabilities, enable seamless integration, and deliver digital-first experiences.

64%

of executives will start their modernization journey by the end of 2026*

99%

have either completed or initiated business case planning for modernization*

Top priority

to support real-time capabilities and deliver digital-first experiences*

Source: *Global state of bank modernization & technology transformation survey*, April 2025.

"Your core banking system lies at the heart of your ability to efficiently and securely manage money as it journeys through the global economy. By unbundling and digitizing it in a modular fashion on your own timetable, it becomes the center of a fully connected, secure ecosystem that empowers you to compete at a higher level and elevate the full banking experience for your customers."

Andrew Beatty, SVP,
Global Core Solutions, FIS

From big bang to sidecar: How banks are approaching transformation today

For years, banks – and, to a lesser extent, fintechs – have hesitated to modernize their core systems, equating transformation with full-scale replacement. Such ”big bang” projects were often seen as costly, disruptive and high risk, with results sometimes not realized for years.

Today the industry has witnessed a massive shift. Less than 1% of survey respondents – effectively just one or two institutions out of 300 – are pursuing a full core replacement. Instead, most banks are opting for a more measured, incremental approach.

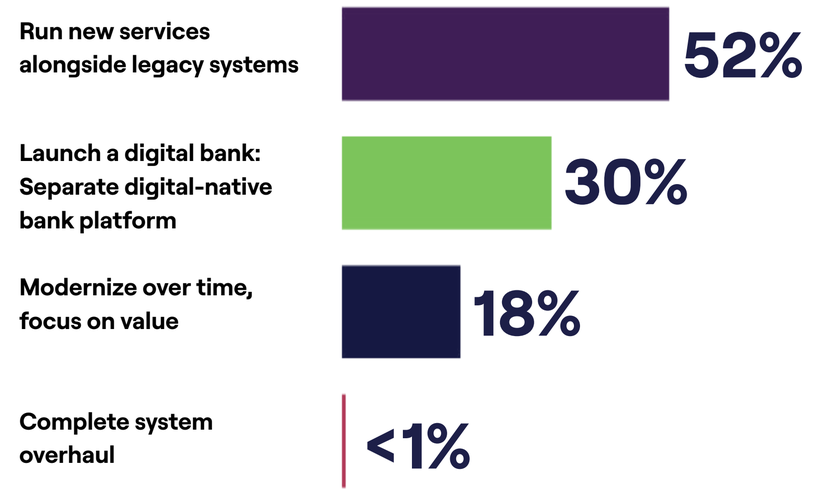
While that approach varies, the sidecar strategy has emerged as the preferred path, with more than half of institutions planning to adopt it. This approach layers new digital services running alongside the existing core, allowing banks to modernize in stages rather than all at once.

The appeal is clear: sidecar architecture breaks modernization into manageable components, designed to reduce the risk, cost and operational disruption that are often the hallmarks of full-scale replacements.

At the same time, the componentized nature of this approach can accelerate time to market, enabling banks to bring new services to market faster and pursue new revenue opportunities.

Source: *Global state of bank modernization & technology transformation survey,* April 2025.

What type of core modernization approach are you planning on using at your financial institution?



> **“Implementation might take forever."**
>
> Chief Risk Officer, Global Bank, North America

> **“Cloud migration costs are always underestimated."**
>
> Chief Operating Officer, Global Bank, North America

“Banks are no longer focused on just modernization of the core, but rather modernization of the bank. Because this involves both back-end core processing platforms and front-end systems, the end goal is not a one-size-fits-all journey.”

Peter Boyer, SVP,
Head of Global Banking, FIS

Where modernization begins:
Transforming the broader ecosystem

With modernization extending across the entire banking ecosystem, the critical question becomes: where should institutions start? While priorities vary, the following four areas emerge as high-impact starting points.



Digital channels

The traditional definition of digital has evolved beyond front-end interfaces. Now, it includes the connectivity between core systems and customer-facing channels that power seamless customer experiences.

Technologies such as open banking and API ecosystems are extending access by integrating financial services into customers’ daily platforms. Capabilities like gamification, loyalty programs, instant approvals and in-app shopping all enhance customer engagement while enabling faster delivery of new services.

These strategies improve customer access and satisfaction while creating new market opportunities and supporting banks’ geographical presence.

“

The cloud alone won’t miraculously become a core banking platform. Modernization requires the right ecosystem, integration strategy and operating model."



Andrew Beatty, SVP, Global Core Solutions, FIS

APIs and embedded finance

The industry is shifting from product-centric models to experience-driven ecosystems, powered by APIs. Embedded finance, integrated into super apps, digital marketplaces and e-commerce, is accelerating this transition.

As API adoption grows, institutions must address associated risks, including security, data privacy, authentication and fraud. However, there are also clear benefits of the ecosystem strategy:

- **Enhanced and seamless customer experiences** through integrated digital interactions and new services
- **Real-time data exchange** that improves speed and accuracy
- **Expanded market access** through open banking and fintech collaboration
- **Accelerated product development and service integration,** enabling the rapid deployment of new digital services, embedded finance and streamlined customer onboarding

What leaders are saying

“There’s a risk of losing critical data during the switchover.”

Head of Risk Management,
Global Bank, North America

We need better fraud analytics, more transparency, and a unified view of risk.”

Head of Risk and Resilience,
Global Bank, APAC

Risk management

Transforming risk management is no longer solely about defense. It's about building resilience, transparency and operational agility in an increasingly complex and volatile threat landscape.

Modern risk management is also the foundation for scalable innovation across core platforms, payments and digital customer journeys. For example, it makes it much easier for organizations to adopt advanced capabilities such as:

- **AI-driven threat intelligence, detection and response** such as managed detection and response, endpoint detection and response, and other network security tools
- **Advanced, real-time fraud detection** powered by machine learning algorithms, operating within established risk management frameworks, to flag suspicious transactions for review.
- **Centralized security management** across systems and data environments

Source: *Global state of bank modernization & technology transformation survey,* April 2025.

What leaders are saying

“Customers now expect instant updates and alerts.”

Senior Director,
IT, Data Risk and Compliance,
Digital Bank, North America

“Customers increasingly expect seamless experiences.”

Chief Operating Officer,
Regional Bank, North America

Customer experience

Staying competitive always comes down to the customer experience - and ultimately that’s what should anchor any modernization strategy. Today’s consumers expect fast, personalized and intuitive interactions, but existing systems can often limit financial institutions’ ability to deliver that.

Modernization enables real-time analytics, allowing firms to assess applications, personalize offers and deliver services in seconds. Institutions that prioritize digital channels, APIs, risk management and customer experience will be best positioned to deliver value, innovate at scale, and compete effectively in a rapidly evolving market.



The role of AI and emerging technology: Enabling smarter, faster and more personalized banking

To fully realize the benefits of AI and emerging technologies, banks and fintechs must first modernize their technology foundations. Architectures such as MACH (modular, API-first, cloud-native) provide the scalability, flexibility and real-time responsiveness required to support these innovations at scale.

AI at scale

AI presents significant opportunities across the enterprise. It enables deeper insights into behavior, powering more personalized interactions and more responsive service through tools such as intelligent assistants and chatbots. Institutions can deliver tailored products, faster decisions and real-time engagement that aligns with customer expectations.

However, AI's impact extends far beyond the customer experience. Capabilities such as real-time fraud detection, biometric authentication, and advanced risk analytics strengthen security and improve decision-making.

Generative AI and agentic AI are further expanding possibilities, enabling end-to-end task execution, AI-augmented decision-making with appropriate human oversight and collaboration across complex tasks.

Advanced technology: Building the next era of banking

At the operational level, the convergence of AI, robotic process automation (RPA) and hyper-automation is transforming enterprise processes. Organizations can redesign workflows end-to-end, driving efficiency, scalability and cost optimization. Increasingly, banks and fintechs are moving toward self-optimizing systems that continuously learn, adapt and improve through real-time data and predictive analytics.

To support this transformation, firms must invest in reskilling, AI literacy and cultural change to align talent and operating models with a digital, innovation-driven mindset.

At the same time, responsible AI and governance are equally critical. Strong governance frameworks (including AI Centers of Excellence, zero-trust security models and privacy-first frameworks) are essential to ensure ethical, compliant and secure deployment. The deployment of AI and emerging technologies should be undertaken in accordance with each institution's governance framework and applicable regulatory requirements, including expectations for model risk management, explainability and human oversight.

Emerging technology

Alongside AI, a range of emerging technologies are reshaping the financial services landscape. Quantum computing, blockchain, digital assets and decentralized finance (DeFi), and the convergence of AI with augmented/virtual reality and the Internet of Things are all poised to influence product innovation, security models and customer engagement.

To support these advancements, leading banks and fintechs are investing in microservices-based architectures to enhance agility, scalability and operational resilience. By breaking applications into independent, loosely coupled services, organizations can develop, deploy and scale capabilities more efficiently. Failures in one component do not disrupt the entire system, ensuring continuity of service. Similarly, containerized environments enhance deployment speed, support horizontal scaling, and improve the ability to manage fluctuating demand.

This holistic approach helps mitigate the potential risk of emerging technologies, enabling banks to benefit from modernization without disruption.



Institutions that master AI and emerging technologies will lead the next era of banking.

86%

say modernization is critical to long-term strategic goals*

Source: *Global state of bank modernization & technology transformation survey*, April 2025.

Building a modernization roadmap: From incremental changes to long-term transformation

Modernization is an ongoing process, not a one-and-done proposition. Banks and fintechs must develop a plan that not only addresses immediate needs but is flexible enough to embrace change.

A successful modernization strategy starts with customer value, moves through prioritization and capability assessment, and ends with disciplined execution – supported by the right technology, partners and governance.

A step-by-step guide to modernization

1.
Define the customer value you want to deliver
Start by identifying the outcomes that matter most to your customers and your business.

Examples:
- Real-time payments
- Buy now, pay later
- New lending products

2.
Determine how that value will differentiate you
Evaluate whether those offerings will strengthen your competitive position.

Examples:
- Expanded product offerings
- Entry into new markets
- Faster time-to-market

3.
Diagnose what's holding you back
Identify the operational, technical and data-related barriers that are preventing progress.

Examples:
- Slow processes
- Technical debt
- Fragmented data

4.
Prioritize the opportunities
Rank modernization opportunities based on impact, feasibility, cost and risk.

Examples:
- Potential business gains vs. implementation costs
- Risk exposure vs. strategic value
- Potential impact on customers vs. other projects

5.
Assess your capacity to execute
Determine whether you have the budget, skills and organizational appetite to pursue one or multiple initiatives at the same time.

Examples:
- Budget trade-offs
- Existing internal capabilities
- Critical skill gaps

6.
Select the highest-impact use cases
Choose the modernization use cases that are most likely to deliver measurable value.

Examples:
- Possible ROI
- Strategic alignment with customer value
- Business urgency

7.
Establish your baseline and success metrics
Measure current performance and define how success will be evaluated after modernization.

Examples:
- Current process speed or system performance
- Customer experience improvements
- Revenue, cost or satisfaction targets

8.
Align the right technology to each use case
Select technologies based on the specific needs of each initiative rather than adopting tools without a clear business case.

Examples:
- Agentic AI
- Generative AI
- Real-time APIs

9.
Choose the right partners
Identify technology partners that can accelerate progress, fill capability gaps and reduce execution risk.

Examples:
- Industry expertise
- Proven technology
- Economies of scale

10.
Build the governance model
Create a governance structure to guide decision-making, track performance and keep modernization aligned with business goals.

Examples:
- Set KPIs
- Align projects to strategic objectives
- Create repeatable processes for execution and oversight

Architecting the future of banking with FIS

The fundamentals of banking have evolved. Consumers and businesses now have greater choice and higher expectations, requiring banks and fintechs to adapt quickly – or risk losing relevance.

At FIS, we combine proven reliability with continuous innovation to help architect the future of banking. As a trusted partner supporting financial institutions that collectively represent approximately 10% of global transaction volume, we enable financial institutions to unlock value across every stage of the money lifecycle. Our approach extends beyond core modernization to transform the entire banking ecosystem.

Modernization has moved beyond simply a mandate to become a strategic mindset. Institutions that embrace it are best positioned to compete, innovate and grow.

Contact us today to discover how we help your organization modernize for the future of banking.

LET'S TALK | FIS



Money at rest. Money in motion. Money at work.™

Our technology powers the global economy across the money lifecycle.



Money at rest

Unlock seamless integration and human-centric digital experiences while ensuring efficiency, stability, and compliance as your business grows.



Money in motion

Unlock liquidity and flow funds by synchronizing transactions, payment systems, and financial networks without compromising speed or security.



Money at work

Unlock a cohesive financial ecosystem and insights for strategic decisions to expand operations while optimizing performance.

About FIS

FIS is a financial technology company providing solutions to financial institutions, businesses and developers. We unlock financial technology that underpins the world's financial system. Our people are dedicated to advancing the way the world pays, banks and invests, by helping our clients confidently run, grow and protect their businesses. Our expertise comes from decades of experience helping financial institutions and businesses adapt to meet the needs of their customers by harnessing the power that comes when reliability meets innovation in financial technology. Headquartered in Jacksonville, Florida, FIS is a member of the Fortune 500® and the Standard and Poor's 500® Index. To learn more, visit FISglobal.com. Follow FIS on LinkedIn, Facebook and X (@FISglobal).



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