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# Elevating Customer Experiences:

How cloud banking enables  
continuous innovation in  
an increasingly competitive  
environment

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A report from Kapronasia,  
Temenos, Tech Mahindra  
and AWS





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## Methodology

The Elevating Customer Experiences Report from Kapronasia, in collaboration with Temenos, Tech Mahindra and AWS, is based on both primary and secondary research. Secondary research included existing and new datasets from Kapronasia's databases, various reports, news articles, commentaries in the media, and case studies. Primary research included discussions with industry experts from financial institutions as well as technology providers.



## Executive Summary

The banking industry is experiencing a rapid evolution in consumer preferences and technology, which has brought it to a turning point. In this dynamic landscape, customer experience is crucial, particularly as competition intensifies.

Increasingly, customers are looking for the same convenient anytime, anywhere experience from their financial providers that they get from their digital providers; the constant surge of digital disruption outside the financial industry has completely changed customers' expectations inside the industry. This is putting immense pressure on banks to innovate while providing highly personalized and seamless banking experiences, especially as digital native fintechs push the envelope even further.

However, traditional legacy banking systems, laden with limitations, often struggle to keep pace with cloud native Challenger banks and startups as fragmented systems and product centric models hinder traditional banks ability to compete.

Incumbent banks need to consider how to address the challenge and the options typically come down to: transforming legacy systems, adopting cloud-based solutions that bridge the gap, or building cloud-native from scratch.

Cloud-native solutions offer the agility, flexibility, and innovation capability that legacy systems inherently lack, allowing banks to break free from long release cycles and siloed data structures.

Instead, banks can leverage cloud analytics and an ecosystem of fintech partners to create hyper-personalized customer experiences rapidly. Leading banks are already future proofing themselves through cloud adoption. Those lagging behind face an uphill battle as challengers reshape consumer expectations of banks. Ultimately, cloud banking can be the catalyst for incumbent banks to overhaul their value proposition and reorient around customer needs.

## Emerging Trends: The Customer-Centric Imperative

In today's digital age, customer expectations are undergoing a rapid transformation. Having become accustomed to personalized experiences tailored to their unique needs and preferences by BigTech and e-commerce giants using advanced data analytics and algorithms, customers now demand the same level of personalization and seamlessness from their banks.

This has led to a shift in the banking industry from a product-centric to a customer-centric approach, powered by new and disruptive technologies. According to a 2023 Bain & Company survey of almost 30,000 consumers worldwide, over 70% of respondents expressed their interest in allowing their primary bank to use their personal data if it results in more personalized banking experiences.<sup>1</sup>

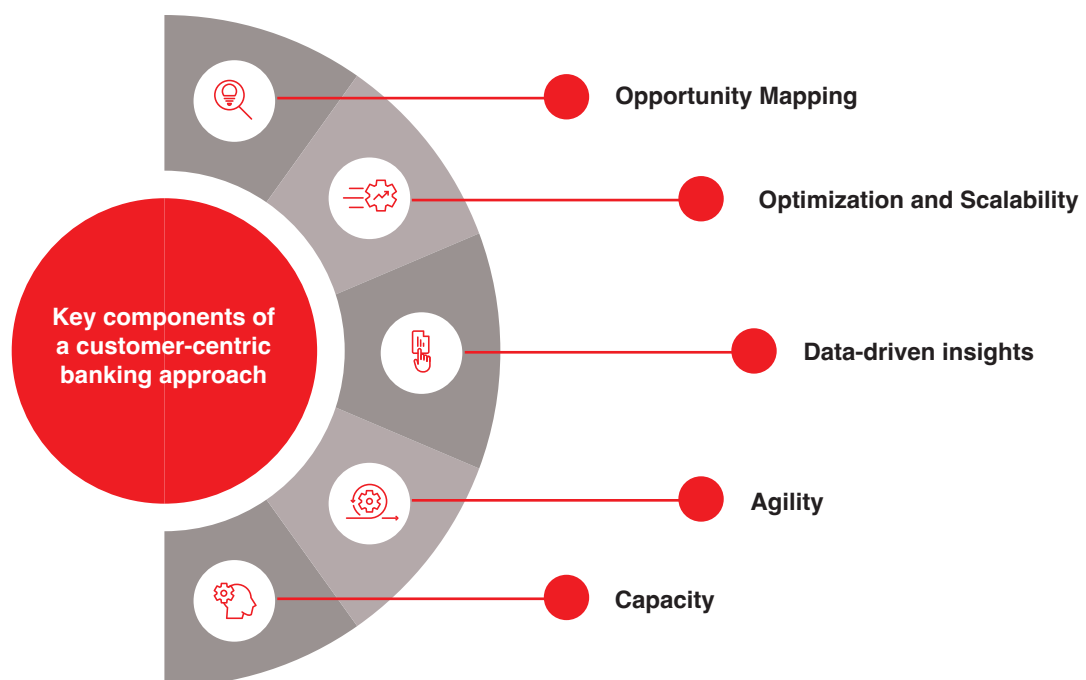
Legacy banks' focus on traditional revenue-generating products has made them less customer-centric, siloed, and less innovative. Between digital banks, Big Tech, and agile fintechs, competition is fiercer than ever.

Gone are the days when banks could get away with generic, one-size-fits-all products. From customized wealth management advice to loans with flexible repayment options, customers demand that banks offer 24/7 round-the-clock service and provide tailored products and services to help them achieve financial well-being. The better the customer experience, the more likely they are to remain loyal to a brand or institution, thus impacting customer retention and profits.

<sup>1</sup> Bain & Company, March 2023, "New study from Bain & Company reveals eroding loyalty among banking customers as they increasingly turn to digital-native and neobanks for ancillary services," <https://www.bain.com/about/media-center/press-releases/2023/new-study-from-bain-company-reveals-eroding-loyalty-among-banking-customers-as-they-increasingly-turn-to-digital-native-and-neobanks-for-ancillary-services/>

**Figure 1**

**Components of Customer-centric banking**



To cater to these demanding customers and compete with the new entrants, incumbent banks must accelerate their innovation velocity. However, spending cuts and shrinking budgets hinder the ability to properly maintain IT infrastructures, leaving them vulnerable and potentially impairing customer service.

Where multi-year innovation timelines previously sufficed, today's customers expect novel features and enhanced digital experiences multiple times a year. Legacy processes and systems hold back the bank's innovation bandwidth and need to be overhauled. Adding to this is the rising sophisticated financial cybercrime which has tripled since 2011, reaching US\$32 billion in 2020, and is expected to exceed \$40 billion by 2027.<sup>2</sup> Thus, security and privacy are critical for banks to maintain customer trust, whilst innovating quickly.

A prime example of innovation driving customer experience can be seen with WeLab Bank in Hong Kong which has partnered with Tesla, a leading global electric vehicle manufacturer, to launch a range of tailored banking products

and services like unsecured auto loans, daily spending, deposits, and wealth management. This collaboration, enhanced by WeLab's adoption of Temenos and AWS, is Hong Kong's first specialized offer for Tesla users. The initiative's success is clear, with over 90% of customers using multiple services, rapidly positioning WeLab Bank as a top financier for Tesla vehicles in Hong Kong within a short period of time.<sup>3</sup>

In the face of the changing times, agility and continuous innovation are non-negotiable for banks to achieve the "customer-centric imperative". Failure to transform accordingly poses an existential threat to incumbent banks, as new entrants disrupt the sector with agile, customer-focused value propositions.

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<sup>2</sup> MerchantSavvy, October 2020, "Global Payment Fraud Statistics, Trends & Forecasts," <https://www.merchantsavvy.co.uk/payment-fraud-statistics/>

<sup>3</sup> WeLab Bank, December 2022, "Innovation x Innovation: WeLab Bank and Tesla Form Strategic Partnership The Bank's Market Share Ranked Among Top-3 in HK's Tesla EV Loan Market," <https://www.welab.bank/en/newsroom/innovation-x-innovation-welab-bank-and-tesla-form-strategic-partnership-the-banks-market-share-ranked-among-top-3-in-hks-tesla-ev-loan-market/>



## Limitations Of Legacy Banking Systems

Built before the advent of digital banking, legacy core banking systems and their monolithic, rigid architecture were designed for simplicity, stability, and reliability, but not agility or customer centricity. Hardcoded schemas, lack of API capabilities, and technical debt often prevent legacy systems' integration with external data sources and connectivity to third parties within the ecosystem, affecting innovation and the ability to benefit from alternative distribution models such as BaaS and embedded finance to deliver new customer experiences.

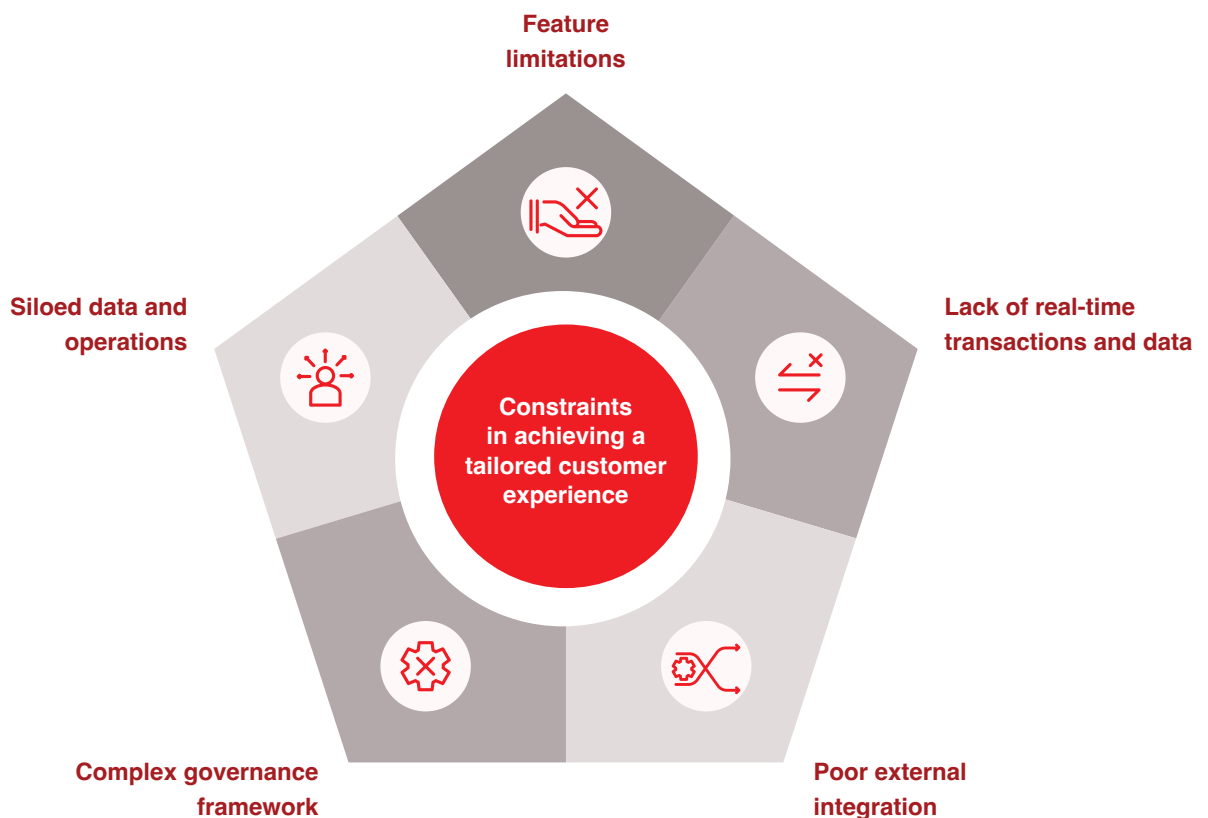
Trying to upgrade these legacy systems requires enormous capital outlays, technical debt resolution, and development resources, which are quite risky and disruptive.

These systems act as shackles that consume resources that could have otherwise been invested in customer-facing innovation.

Legacy systems often contain a wealth of customer data that is not fully utilized. Critical customer data is trapped in fragmented silos across outdated infrastructure, making it difficult to analyze data or integrate it with the modern cloud, representing missed opportunities to gain unified customer insights. This prevents companies from leveraging cloud computing tools like AI to contextualize services and deliver personalized, omni-channel experiences that today's consumers expect.

**Figure 2**

**Legacy System Challenges**



## The Promise Of Cloud Platforms: Enabling Customer-Centric Innovation

Cloud-native banking technology offers the agility, flexibility, and innovation capability banks urgently require for improving the customer experience. Built for adaptability, cloud platforms unlock rapid cycles of data-driven innovation to meet evolving customer expectations.

Cloud's API-driven modular architecture, coupled with the adoption of microservices, unlocks innovation by abstracting the monolithic core and progressively modernizing it into a microservices architecture. This combination accelerates the integration with new data sources and fintech capabilities, significantly collapsing the time-to-market for personalized innovations and enabling omnichannel experiences for customers. Cloud-native development practices, including CI/CD, further empower banks to release updates more rapidly, maintaining their competitive edge.

In contrast to the failures experienced due to the vulnerabilities of on-premises banking systems, the resilience of core systems is significantly enhanced by cloud-native technology.

This plays a crucial role in ensuring high availability and robustness of banking systems. A key differentiator in this regard is the three Availability Zones (AZ) architecture, such as the one offered by AWS. Each AZ is an isolated location within a region and is physically separated, which reduces the risk of a single event impacting more than one zone, thereby enhancing the overall system resilience.

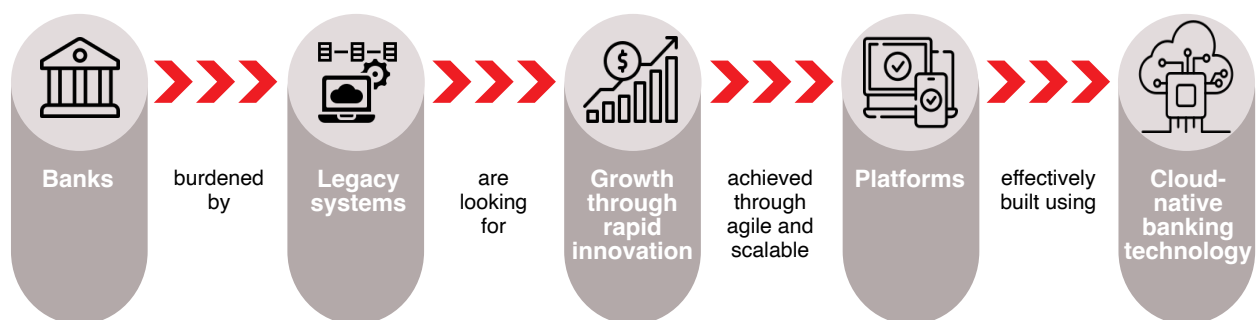
Cloud platforms provide infinitely scalable infrastructure and services on-demand, allowing banks to rapidly provide experiences that handle fluctuating customer volumes. Cloud's elasticity ensures banks can support customer experience demand spikes without disruption. This scalability frees banks from the cost of over-provisioning, improving their cost-to-service ratios. For example, Nubank, one of the world's largest digital financial services platforms and largest banks in the LatAm has reduced the Monthly Average Cost to Serve Per Active Customer to \$0.9 by embracing a cloud-native stack.<sup>4</sup>

**Figure 3**

**Cloud as an Innovation Enabler**

# 57%

of banks prioritize customer outcomes, including engagement, loyalty and reputation<sup>5</sup>



# 72%

of bank executives say incorporating the cloud will help their organization achieve its business priorities<sup>6</sup>

<sup>4</sup> Nubank, November 2023, "Nu Holdings Ltd. Reports Third Quarter 2023 Financial Results," <https://international.nubank.com.br/company/nu-holdings-ltd-reports-third-quarter-2023-financial-results/> <sup>5</sup> Forrester Unlocking Hyper-Personalization At Hyper-Scale Report, 2023; <sup>6</sup> Cloud Economist Intelligence Unit Capturing Value in the report, 2021.

The plethora of cloud analytics, machine learning, and AI services massively expand banks' capabilities to uncover novel customer and behavioral insights. By democratizing access to these cutting-edge technologies, the cloud enables banks to embed data intelligence within experiences and increase personalization. As opposed to the data silos in legacy systems, the cloud's unified data platforms, analytical databases, and data lakes readily aggregate data from disparate sources. Robust identity management can provide a holistic customer view. Combined with cloud analytics, this data foundation fuels sophisticated personalization at a scale.

Cloud transfers undifferentiated heavy lifting like infrastructure management and data center operations to specialists, freeing bank talent to focus on customer-facing innovation and experience design. Cloud skills are also more mainstream and portable than legacy system expertise.

Cloud therefore helps banks mitigate talent shortages holding back their transformation. The Gartner 2023 CIO and Technology Executive Survey indicates that CIOs in the banking and investment sector will prioritize spending on cybersecurity, data analytics, integration, and cloud technologies in 2023.

Over half are set to boost cloud investments and cut spending on in-house data centers, with data center system expenditure growth decelerating from 13.2% in 2022 to 5.7% in 2023.<sup>7</sup>

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<sup>7</sup> Gartner, June 2023, "Gartner Forecasts Worldwide Banking and Investment Services IT Spending to Reach \$652 Billion in 2023," <https://www.gartner.com/en/newsroom/press-releases/2023-06-21-gartner-forecasts-worldwide-banking-and-investment-services-it-spending-to-reach-652-billion-in-2023#>





## Elevating Customer Experiences Through Cloud Innovation And ESG

Banks around the world are already leveraging the cloud to break free from legacy constraints and transform customer engagement through innovation. Their successes provide blueprints for others to follow suit.

### Case Study 1: WeLab Bank – Standing Out Through Cloud-Native Agility

The launch of WeLab Bank, the first cloud-native digital bank in Hong Kong, showcases how cloud-native banking is pivotal for achieving speed, innovation, and cost efficiency. Built on Temenos' cloud-native core banking platform and implemented on Amazon Web Services and Google Cloud in less than ten months, WeLab Bank demonstrates the agility of cloud banking.

Founded in 2013, WeLab has been at the forefront of transforming financial services through technology across Hong Kong, mainland China, and Indonesia. In 2019, WeLab became one of the first few banks to secure a virtual banking license from the Hong Kong Monetary Authority (HKMA), paving the way for the launch of WeLab Bank – a mobile-only, virtual bank aimed at democratizing banking services. However, the challenge was to develop a sandbox version of the virtual bank to meet the regulatory requirements within a six-month timeframe, a task that typically takes traditional banks at least a year.

WeLab Bank successfully deployed a proof-of-concept solution in just six months using a preconfigured Temenos solution, requiring minimal coding. This deployment, coupled with AWS infrastructure facilitated seamless service delivery across Hong Kong with zero data loss. WeLab Bank also worked closely with AWS to meet the regulatory requirements for virtual banking.

The results were remarkable, with 10,000 new account openings within the first ten days of its public launch. Customers could remotely open a WeLab Bank account in as fast as five minutes, enjoying zero monthly fees and a suite of differentiated services such as competitive-rate time deposits, an interest-bearing deposit account with an instant virtual Debit Card, and real-time payments.

The cloud-native architecture enabled the bank to quickly roll out over 400 APIs to power new innovations in its mobile app. Additionally, the elastic scalability of cloud technology allows WeLab Bank to scale efficiently and seamlessly during spikes in customer demand and eliminates the need to provision for peak processing volumes.



### Case Study 2: Flowe - Revolutionizing Banking with Cloud Technology and Social Responsibility

In the evolving financial landscape, Environmental, Social, and Governance (ESG) considerations are increasingly becoming mainstream, particularly within the banking sector. Traditional banks are integrating ESG into their operations, recognizing it as a supplement to their core business activities. They are aligning with various reporting frameworks to demonstrate their commitment to sustainability.

Flowe exemplifies how modern cloud platforms are instrumental in driving innovations that not only captivate customers but also enable them to lead more eco-friendly lives. However, for banks like Flowe, ESG principles are not just an add-on; they are embedded at the heart of their business model. Flowe is Italy's first fully mobile and cloud-based bank.

The challenge for Flowe was considerable: establishing a comprehensive banking system from the ground up in the Italian market. However, through a strategic partnership with Temenos and leveraging its cloud-native banking software as a SaaS Cloud Service, Flowe was able to deploy a full-service banking platform swiftly. This agility in implementation was reflected in the rapid growth of its customer base, attracting around 686,000 customers in just half a year.

By utilizing Temenos' agile banking software, Flowe was able to launch an award-winning mobile app that resonated perfectly with younger demographics. The app not only enables seamless account management and payments, but also integrates inspiring social and environmental initiatives that reflect Flowe's commitment to ethics and sustainability.

The efficiency of Flowe's operations is evident in the customer signup process, which has been streamlined to a mere 7-8 minutes. Flowe's remarkable customer adoption and rapid time-to-market demonstrate how when you build a bank with the right partners connecting profitability with purpose, banks can become forces of positive change.

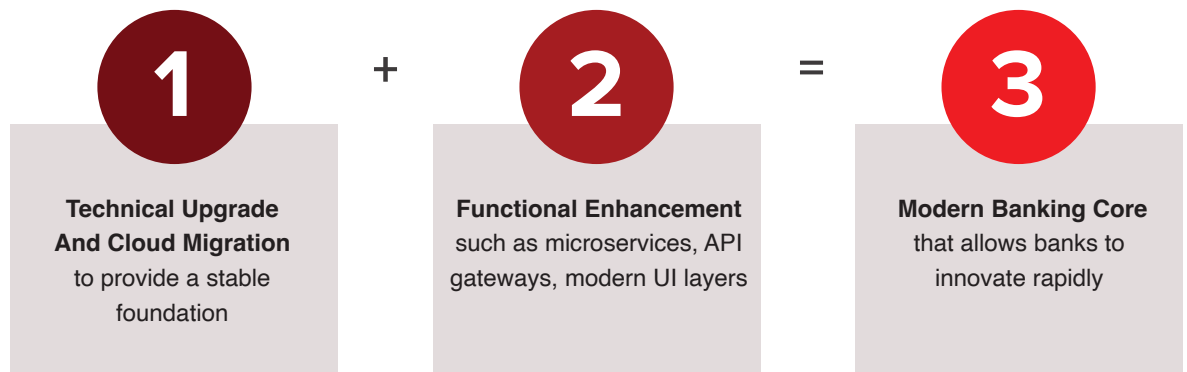
**“We have shown that banking and sustainability can go hand-in-hand. We see sustainability as a journey rather than a final goal, and we will continue to work hard to improve our impact on the planet. Our partnership with Temenos has been vital to how far we have come.”**

**– Marco Segato,  
Head of Augmented Intelligence at Flowe**

## The Importance Of Selecting The Right Partners

**Figure 4**

**Two Stage Solution for Core Banking**



Migrating core banking systems to the cloud is a complex endeavor that requires careful planning and expertise to execute successfully. As rightfully pointed out by Cyrus Daruwala, Managing Director of IDC Financial Insights, “Solutions don’t fail, Implementations do.”

Hence, it is important to work with the right partners who are familiar with core banking products and understand client priorities and cloud implementation best practices. With the right technology partners, institutions can avoid pitfalls that can derail cloud migrations. Rather than viewing it just as a ‘rip-and-replace’ of core systems, banks can consider working with experienced providers to take a phased, incremental approach.

Such technology partners provide a two-stage solution for existing core banking customers, beginning with a technical upgrade and cloud migration of the core platform before undertaking any functional enhancements. This approach ensures a stable foundation on the cloud prior to modernization.

With the core stabilized on the cloud, banks can then work with partners to hollow out legacy systems and adopt cloud-native capabilities. Examples include developing microservices for specific functions rather than monolithic platforms. API gateways and modern UI layers can provide optimized customer experiences without ripping out legacy cores. A phased migration approach allows banks to innovate selectively, reduce risk, and add capabilities over time.

The most successful cloud migrations start with expert partners who take a pragmatic, incremental approach. Attempting a wholesale transformation of complex core banking systems might be high-risk.



## Conclusion

Customer centricity is indisputably the new strategic priority for banks as digital disruption reshapes competitive landscapes and consumer habits. Legacy systems' constraints make the necessary agility, personalization, and rapid innovation difficult and costly, which is often overlooked. The opportunity cost is severe when these funds could otherwise be allocated towards customer-facing capabilities that drive satisfaction, loyalty, and revenues. Beyond financial costs, insecure legacy systems risk brand reputation in an era where data breaches erode consumer trust.

In contrast, cloud's adaptability, data sophistication, ecosystem connectivity and microservices offer the most viable way for banks to transform. The cloud also future-proofs banks, with flexible tech stacks that can be upgraded modularly instead of requiring disruptive, wholesale changes.

However, migrating legacy cores can be highly complex and risky. Hence, banks should partner with relevant experts to enable phased, pragmatic cloud transitions focusing first on stable migrations before gradual modernization. This phased approach allows banks to redirect savings from legacy system maintenance towards customer-centric capabilities over time, boosting satisfaction and loyalty.

The most successful paths start with partners taking an incremental approach, ensuring bank priorities are secured while progressively enabling cloud's transformative capabilities. With the right vision and implementation, banks can propel out of inertia into the new era of banking. The message is clear - existing technology constraints must not prevent the customer experience innovation imperative.



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## temenos

Temenos is the world's leading open platform for composable banking, creating opportunities for over 1.2 billion people around the world every day. We serve over 3000 banks from the largest to challengers and community banks in 150+ countries by helping them build new banking services and state-of-the-art customer experiences. The Temenos open platform helps our top-performing clients achieve return on equity three times the industry average and cost-to-income ratios half the industry average.

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