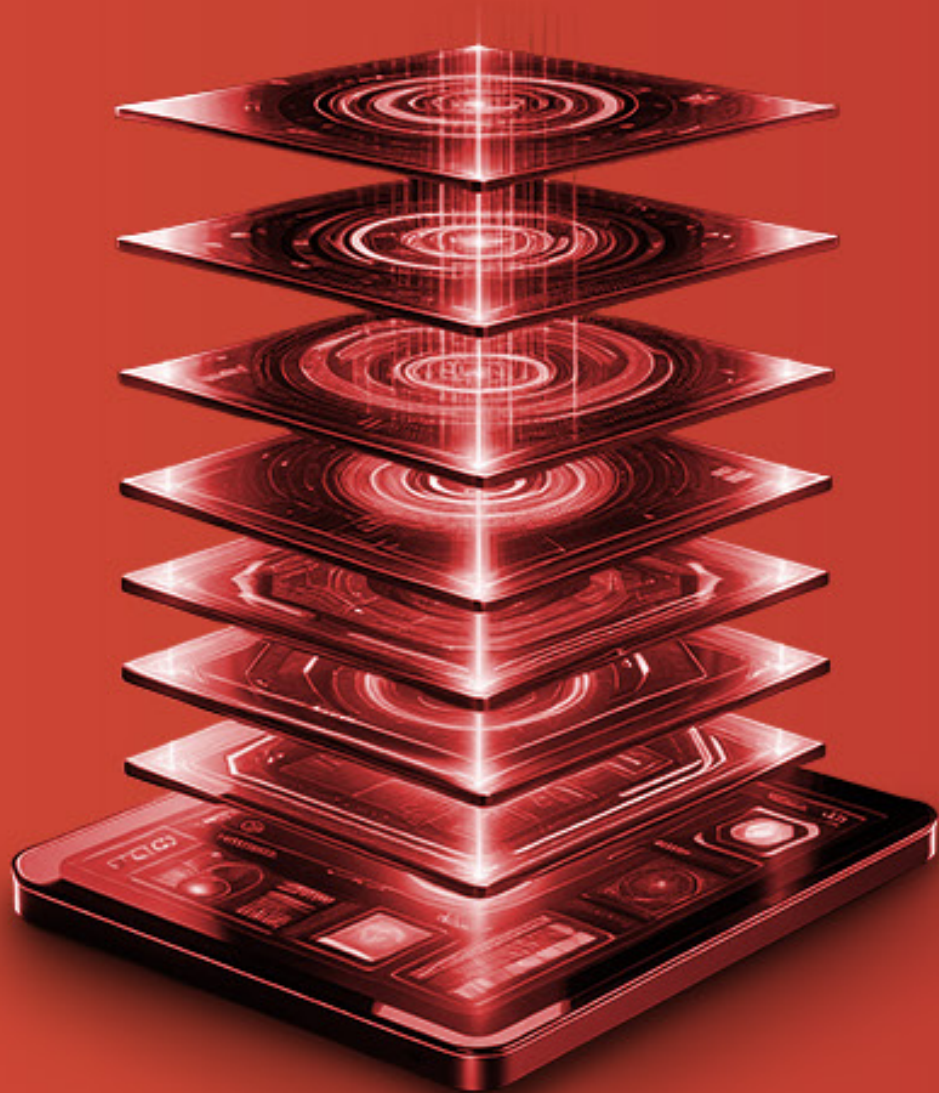




Shaping Banking's Next with Advanced Architecture

Nearly 50% of all bank transactions are expected to occur through non-bank channels by 2030. The future of banking isn't just digital – it is embedded in lifestyle apps, highly personalized, and competitive. This underscores the urgency for technology constructs that support seamless, personalized, and purpose-driven financial interactions. Modern banking architectures, rooted in principles like data and AI-first, cloud-native, open constructs, modularity, offer the agility, scalability, resilience, and cost-efficiency required to meet these challenges head-on while maintaining regulatory compliance. In recent years, banks have shown progress in enhancing their architectural maturity, adopting cutting-edge principles to stay ahead of the curve.

Looking ahead in 2025, banks will sharpen their focus on three pivotal areas to scale their architectural capabilities further. First, headless banking architecture will empower banks to decouple front-end interfaces from back-end systems, enabling faster innovation and hyper-personalized customer experiences. Second, event-driven and API-first strategies will take center stage, enabling real-time, integrated services that seamlessly connect with external ecosystems. Finally, security principles will become the bedrock of architectural designs, addressing threats arising with advent of new business models. Together, these efforts will position banks to excel in customer engagement, drive operational excellence, and foster sustainable growth in an increasingly competitive landscape.

Industry Trendline

64% of financial institutions are expected to adopt headless architecture running into 2025 to meet growing demands for flexibility and personalization
IBS

Banks are embracing event-driven and API-first architectures backed by AI capabilities to remain competitive.

Nearly 60% banking executives signaled that their bank's application architecture maturity is "as good as others but not better" when it comes to security principles
Innovation in Retail Banking 2024

Banks' Architectural Maturity to take a giant leap in 2025

Headless Banking Architecture to ensure customer-centricity

Event-driven and API-first strategies to become key for growth and expansion

Zero-Trust Security Principles will become foundational

Headless Banking Architecture to Ensure Customer-centricity

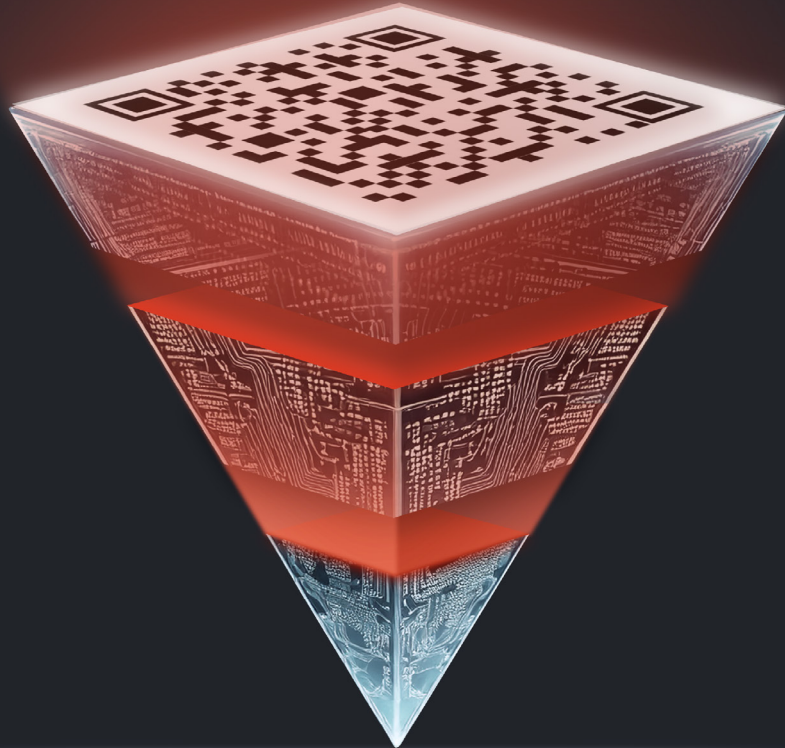
As banks face an urgent need to reimagine how they engage with customers, banking experiences can no longer remain channel-bound, siloed, or one-size-fits-all. Instead, delivering hyper-personalized and seamless experiences across every touchpoint is going to be the standard for success. This calls for banks to adopt agile, iterative front-end innovation aligned with ever-evolving customer needs while ensuring their back-end systems are modular, scalable, and optimized for performance.

Headless banking architecture are set to address this need by decoupling the front-end user interface from back-end systems, enabling faster innovation and personalized, context-driven customer journeys. This modular, API-driven approach allows financial institutions to create persona-centric journeys, delivering contextual services at the right time and place in the customer lifecycle. With low-code and no-code platforms as part of the experience stack, banks can rapidly design, test, and deploy user experiences, achieving greater agility and responsiveness.

According to a report, 64% of financial institutions are expected to adopt headless architecture running into 2025 to meet growing demands for flexibility and personalization. In 2025, we will see greater adoption of

composable architectures, where banks build modular front-end experiences using reusable components and Backend for Frontend (BFF) APIs. These APIs will integrate experience services, ensuring smooth and consistent user interactions across multiple platforms. Moreover, headless architecture facilitates partnerships with fintechs and other ecosystem players, enabling banks to introduce new functionalities and services without overhauling their core systems, reducing time-to-market significantly.

While implementing headless architectures, banks will encounter challenges associated with regulatory mandates and technology adoption. To overcome these hurdles, banks must focus on robust API governance, prioritize scalable and secure platform designs, and foster partnerships to share technology investments. By addressing these challenges head-on, banks can unlock the full potential of headless architectures to reshape customer experiences and drive sustainable growth.



Case Examples

JP Morgan Chase, Goldman Sachs (with its Marcus brand), and HSBC, are investing heavily in digital banking initiatives, including the adoption of headless and API-driven architectures to enhance customer experiences and expand their digital offerings.

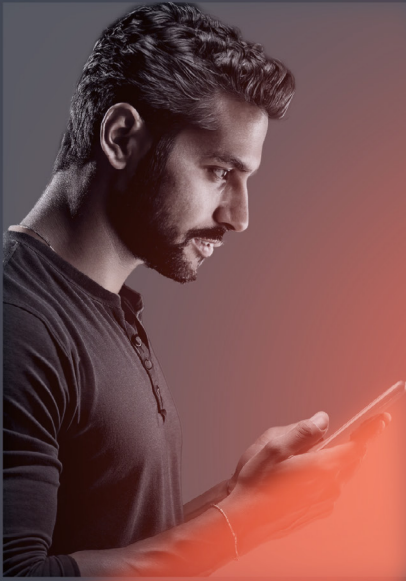
Event-Driven and API-first Strategies to Become Key for Growth and Expansion

Lifestyle apps like Amazon, Uber, and WhatsApp have set the bar for seamless, anytime-anywhere experiences, pushing banking services to integrate deeply into these ecosystems. Banks that continue to rely on monolithic systems and siloed data face significant risks, including a lack of agility, limited personalization, and inadequate responsiveness to market changes. Recognizing this, banks are embracing event-driven and API-first architectures backed by AI capabilities to remain competitive.

An API-first strategy forms the backbone of modern banking ecosystems. This approach prioritizes designing robust, well-documented APIs that facilitate seamless integration with internal systems, fintechs, and third-party partners. Easy consumption of APIs enables banks to accelerate product development, improve operational efficiency, and enhance customer experiences. On the other hand, event-driven architectures revolutionizes how banks respond to triggers such as transactions, customer interactions, or market changes. Unlike traditional request-response models, this reactive system enables real-time responses, operational efficiency, and personalized customer experiences. For instance, event-driven systems can initiate instant loan approvals, deliver tailored offers, or even automatically detect fraud based on real-time customer behavior.

In 2025, adopting event-driven and API-first strategies backed by AI will become essential for banks to thrive in the face of rising competition from digital challengers. Banks will invest in comprehensive tech stacks featuring robust API management tools, gateways, developer portals, identity and authorization mechanisms, and real-time usage monitoring. Event-based platforms will allow banks to process and analyze data in real-time, enabling immediate insights into customer behavior, market trends, and operational risks. These capabilities will empower banks to offer hyper-personalized experiences, proactive support, and seamless omnichannel services while advancing open banking initiatives.

However, significant challenges remain. The lack of standardized APIs is a critical hurdle, as varying API standards across financial institutions hinder interoperability and smooth integration. To overcome these barriers, banks will increasingly adopt platforms powered by BIAN-inspired APIs, events, and standards-driven approaches. These platforms will enhance data sharing with third-party providers, foster ecosystem innovation, and strengthen customer trust in open banking services.



Case Examples

With 700+ APIs, [ICICI Bank](#), powered by Finacle, boasts of one of the broadest API portals for banks across the globe.

The bank handles 150 million API calls a day and provides connected banking services with over 100 SME apps.



Zero-Trust Security Principles Will Become Foundational

The rapid adoption of open banking, API-led collaborations, public cloud, and virtualized data centers is fundamentally reshaping the security landscape for banks. Traditional perimeter-based security models that rely on “trust within the network” are proving inadequate. Banks are confronted with growing regulatory scrutiny and evolving data protection requirements, making it imperative to redefine their security frameworks to protect sensitive customer data and maintain trust.

Banks will increasingly adopt holistic security frameworks based on security by design and Zero Trust principles. These approaches embed robust security measures from the start and enforce a “never trust, always verify” stance, ensuring every access request is authenticated and operates on least privilege principles. Security by design integrates protections across APIs, applications, networks, and data architectures, while advanced solutions like AI-driven threat detection, multi-factor authentication, and encryption enhance resilience. In the [Innovation in Retail Banking Survey 2024 by Infosys Finacle and Qorus](#), nearly 60% banking executives signaled that their bank’s application architecture maturity is “as good as others but not better” when it comes to security principles. This shows while banks have already made lot of headway in implementing security measures, there’s still plenty of progress to be made.

In 2025, banks will double down on Zero Trust and Security by Design to fortify their defenses against evolving threats. Strong Identity Access Management (IAM) solutions, incorporating biometrics, behavioral analytics, and risk-based access control, will form the cornerstone of their security frameworks. Cloud-native security tools such as Cloud Access Security Brokers (CASBs), Security Information and Event Management (SIEM) systems, and Cloud Security Posture Management (CSPM) tools will be widely adopted to monitor and safeguard cloud environments. Data encryption and segmentation will become standard practices, minimizing the impact of potential breaches by restricting sensitive data access to predefined roles and needs. DevSecOps and secure software development lifecycles (SDLC), enriched with security protocols, will help banks proactively identify and mitigate vulnerabilities throughout the development process.

Integrating these models with legacy systems can be complex and resource-intensive, requiring significant time, effort, and expertise. Missteps during the transition could create unintended security gaps. Employee training remains a critical component. Additionally, the lack of standardization across security practices and tools may complicate interoperability and coordination across banks’ global operations. Moving forward, banks must invest in robust planning, employee education, and collaboration with industry bodies to overcome these obstacles and maximize the benefits of Zero Trust and Security by Design.



Case-in-Point

Goldman Sachs, Capital One, and JPMorgan Chase are deploying Zero Trust security and Zero Trust access frameworks to bolster their banking cybersecurity frameworks, regulatory compliance and support for remote work and digital transformation.



Reimagining Bank's Architecture

As banks face the imperative of scaling new technologies and innovate continuously, modernizing architecture is the first thing they need to get right. Embracing modern principles like headless banking, event-driven, API-first, AI, and security principles will help banks grow their architectural maturity that will in turn lay the foundation for new solutions and unlock efficiencies. Reimagining their architecture will help banks meet evolving requirements of today's banking landscape and thrive for years to come.

Why we exist

To inspire better banking so that billions of people and businesses can save, pay, borrow, and invest better.

How we do it

Our solutions and people help banks to engage, innovate, operate and transform better, so that they can improve their customers' financial lives, better.

What we offer

A comprehensive suite of industry-leading digital banking solutions and SaaS services that help banks engage, innovate, operate and transform better.

Finacle is an industry leader in digital banking solutions. We are a unit of EdgeVerve Systems, a wholly-owned product subsidiary of Infosys (NYSE: INFY). We partner with emerging and established financial institutions to help inspire better banking. Our cloud-native solution suite and SaaS services help banks engage, innovate, operate, and transform better to scale digital transformation with confidence. Finacle solutions address the core banking, lending, digital engagement, payments, cash management, wealth management, treasury, analytics, AI, and blockchain requirements of financial institutions. Today, banks in over 100 countries rely on Finacle to help more than a billion people and millions of businesses to save, pay, borrow, and invest better.



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