What's next for core banking?

To deliver the digital-native experiences that customers expect, banks must integrate the right technology, platform, and team into their modernized core banking systems

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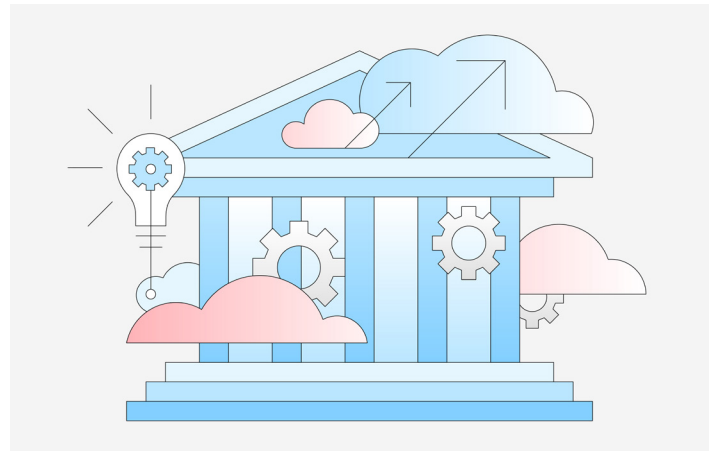
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Introduction

Customers expect banking services at their fingertips and demand their bank to deliver "right here, right now." The complexity of banking operations must remain internal and invisible to the external world. This need for speed and efficiency poses a significant challenge for an industry traditionally defined by safety, reliability, and regulatory compliance—where any error can end up as front-page news.

Speed refers to the ability to innovate or respond to competitors' moves with agility, enabling banks to deliver new products, services, functionalities, or features to customers without undue delays. Heritage core banking systems that hinder rapid product development and deployment constrain banks, leaving them struggling to compete with more agile competitors or digital players entering the financial services space. Achieving innovation at speed has become a key focus across the industry, making investment in modernizing one of its most strategic technological assets—the core banking system—a business priority for many banks.

Developing new customer experiences must make economic sense, with marginal costs for serving customers kept to a minimum. Efficiency is equally essential to remain competitive in today's landscape. Banks relying on core banking systems that demand constant adjustments, operational workarounds, and extensive development efforts to introduce a new product or functionality are simply not equipped to compete with others that possess more advanced capabilities.

The platform hosting the core banking system is another crucial strategic decision. For example, while software-as-a-service (SaaS) models can be appealing when the priority is to streamline implementation and deployments, they are often unsuitable for banks prioritizing resilience, digital sovereignty, and flexibility. The core banking system is critical not only for a bank and its customers, but in some cases, also for the broader economy, especially when outsourcing technology and operations for essential services.

How do banks achieve speed, efficiency, and resilience?

The banking landscape is changing rapidly—customers' preferences, regulations, and technology are clear evidence of this—and the change of pace shows no sign of slowing. That's why a bank's competitive advantage doesn't rely solely on the specific experiences it can offer today, but how it can continue to create new experiences at pace in the future.

A "bank in a box" might be appealing for day one, but as the bank progresses, it must create new products and services to meet evolving customer demands and stay competitive. The preference for SaaS and monolithic systems has shifted toward hybrid, interoperable core banking solutions. Decoupling the application from the infrastructure where it is hosted is a wise strategy to keep options open, enabling the bank to leverage emerging technology opportunities, comply with regulations, and avoid the dreaded lock-in to vendor pricing strategies. A core banking system built on microservices is interoperable with other applications and can adopt cloud-native practices in a hybrid cloud environment, providing portability across multiple infrastructures (including cloud service providers, mainframes, and distributed systems).

There is a global trend now where regulators are focusing on banks' operational resilience, alongside financial resilience, which has traditionally been their primary concern. A service disruption caused by one or more vendors could lead to systemic failure for a bank, a country, or even multiple countries. As a result, some regulators now require banks to have exit strategies for technology vendors supporting critical services—particularly for the core banking system, which plays a central role in this.

One example of this is the EU's Digital Operational Resilience Act (DORA). Even if a bank operates in a region where operational resilience is not strongly regulated, it may become a regulatory priority in the future, significantly impacting decisions related to nonresilient core banking systems.

A coreless core banking system with an API catalogue enables seamless interoperability with other applications, enhancing both speed and efficiency in product development. Banks increasingly seek accelerators—pre-existing templates or resources that can be customized to meet their particular needs or preferences. This interoperability among applications is further supported by the ability to operate across different infrastructures with cloud-native tools, processes, and practices (hybrid cloud environments), which boosts resilience and reduces dependency on specific vendors.

The strategic path

Given the challenges banks face, opting for a hybrid cloud infrastructure offers banks the strategic advantage of flexibility and scalability in deploying their services precisely when and where they need them, without the potential constraints of specific cloud infrastructure. This model allows banks to seamlessly integrate their existing on-premises systems with a cloud-based core banking solution, optimizing resource allocation and minimizing operational disruptions. This is achieved by abstracting the regulatory complexities of cloud infrastructure so banks can strategically allocate resources based on business priorities, whether hosting sensitive account data on premises for enhanced security or leveraging the scalability of the public cloud for high-volume transaction processing.

Banks can ensure consistent performance and reliability with a hybrid cloud infrastructure by adhering to open standards and automating the processes across both on-premises and cloud environments. Moreover, the ability to select cloud locations based on economic and policy considerations empowers banks to strategically optimize their operations. Whether leveraging cost-effective regions for data storage or adhering to regulatory requirements by deploying in specific jurisdictions, banks can tailor their cloud strategy to align with business objectives and compliance mandates. This enables banks to maintain the same level of control, security, and reliability they experience on premises while capitalizing on the cloud's scalability and cost efficiency.
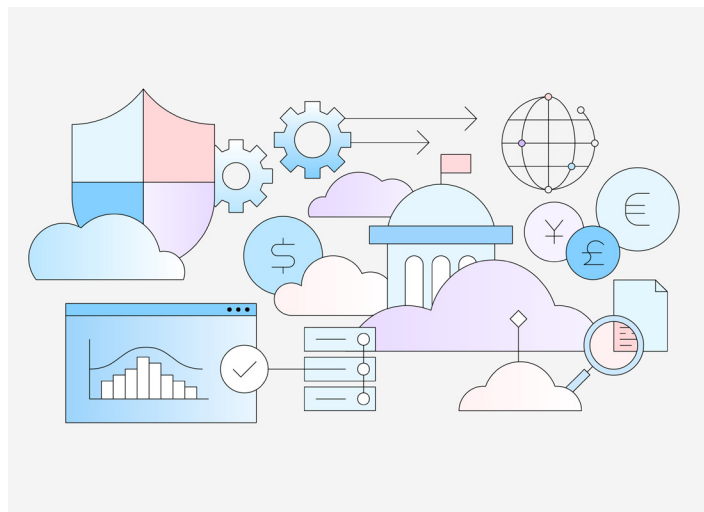
In terms of regulatory compliance, hybrid cloud infrastructure offers banks tight control and visibility over their data, enabling them to adhere to stringent regulatory requirements while still using the benefits of cloud computing. Banks can store sensitive data on premises or in a private cloud to meet compliance standards while using the public cloud for less sensitive workloads and applications, e.g., for development and test systems that do not use real production data. This is very efficient, especially for systems not used continuously, such as for banks that annually do only a few major releases of the core banking system that require comprehensive integration testing with surrounding systems.

A hybrid cloud is also critical to adopting generative AI and helping enterprises achieve their sustainability objectives. It not only enhances the reliability and performance needed for AI processes, but also fosters increased agility by allowing data from cloud and on-premises environments to be seamlessly integrated. Moreover, a configurable core banking system, coupled with a hybrid cloud infrastructure, facilitates cultural and organizational change within banks by providing a gradual

and phased approach to cloud adoption. It allows banks to modernize legacy core systems at their own pace, minimizing disruption and ensuring alignment with business objectives. The gradual transition fosters a culture of innovation and collaboration, empowering employees to embrace modern technologies and adapt to evolving transformation requirements.

In all of this it's important to make the right choices in terms of how you're going to implement the change, how to run the transformation, and how to "chunk" the results into measurable stages that deliver value back to the bank to keep the focus and momentum on the transformation—to consider not just the technical steps to deliver this but also the people and processes needed to support and accelerate the change.

Cloud-native benefit with reduced complexity and risk
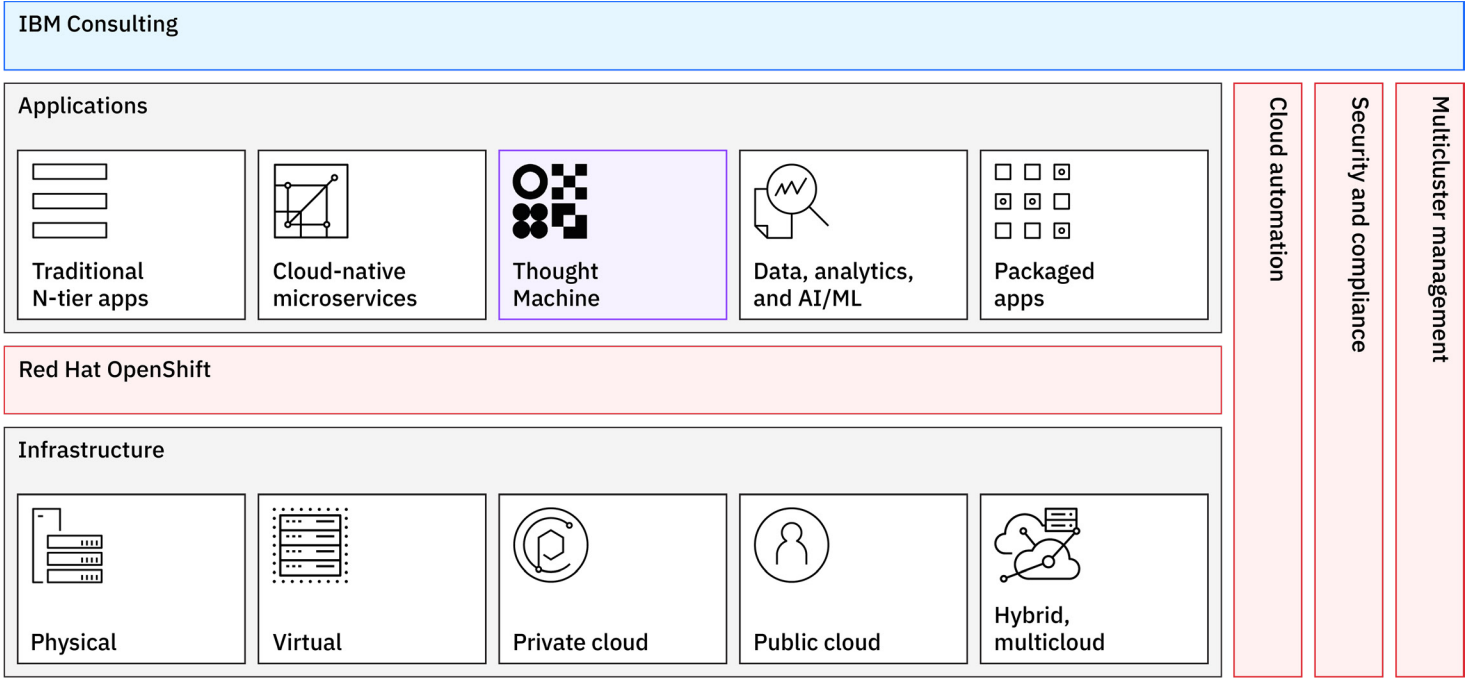
78%

Percentage of banks that had a tactical approach to generative AI in 2024; 8% of banks developed gen AI systematically[1]

90%

Percentage of organizations that will adopt a hybrid cloud approach through 2027

The most urgent gen AI challenge that will need to be addressed this year is data synchronization across the hybrid cloud environment.[2]

Client story: Isybank, Intesa Sanpaolo's digital bank

In June 2023, Italy's largest bank, Intesa Sanpaolo, launched its all-new digital bank, Isybank, with core banking capabilities provided by Thought Machine's Vault Core platform. Intesa Sanpaolo utilizes Red Hat® OpenShift® running on the Google Cloud platform to enable its hybrid multicloud strategy.

In unison, Vault Core and the Red Hat OpenShift enterprise application platform ensure that sensitive data can be stored and processed in any cloud setup, satisfying regulatory requirements while offering the bank flexibility with cloud providers and a next-generation foundation for banking innovation.

Isybank launched with a rich set of advanced features for customers, including digital cards, cardless withdrawals, and salary advance capabilities, and now counts more than 700,000 customers.

Banks leading the way

Leading banks have adopted cloud-native lean core banking systems on hybrid cloud infrastructure, driven by the imperative to stand out in a competitive market amid increasing customer expectations, regulatory pressures, and dynamic market needs. This strategic move enables them to adopt phased modernization journeys along with seamless collaboration within partner ecosystems while leveraging the flexibility and scalability offered by the hybrid cloud infrastructure.

1. "IBM study: Gen AI will elevate financial performance of banks in 2025,"
   IBM Newsroom, 5 February 2025.
2. "Worldwide Public Cloud End-User Spending to Total $723 Billion in 2025,"
   Gartner, 19 November 2024.