

Composable Banking in Practice

Why Successful Modernization
Requires More Than Architecture



temenos

Introduction

Composable banking has become an established approach to modernization, helping banks innovate more rapidly, evolve capabilities incrementally and reduce reliance on large-scale transformation programs. As implementation becomes more mainstream, the challenge is proving to be not simply how capabilities are separated, but how they interact, evolve and contribute to a more agile, resilient and governable banking environment.

Drawing on industry developments and the experiences of our clients, partners and modernization teams, this paper explores the principles, challenges and practical approaches that are shaping composable banking in practice.

Enabling Continuous Evolution

Banking has entered an era where competitive advantage depends on the ability to continuously adapt. Markets evolve rapidly, customer expectations shift constantly, and technologies such as AI are accelerating the pace of change. As a result, banks are increasingly seeking approaches that support continuous evolution rather than relying solely on periodic transformation programs.

Rather than waiting years for transformation initiatives to deliver value, banks are looking for ways to evolve capabilities more incrementally while building resilient, scalable foundations for future growth. This is where

composability has become an important part of the modernization conversation. The promise is compelling: instead of replacing everything at once, banks can modernize specific capabilities, expose functionality through APIs, leverage event-driven architectures and adopt new services independently.

However, composability should never become the objective itself. Banks do not compete on architecture. They compete on customer experience, operational efficiency, innovation, resilience and the ability to respond to change.



The real question is not whether a bank can deploy modular technology through composable solutions. The question is whether technology creates measurable business outcomes while reducing risk and supporting continuous evolution.

Successful composability therefore requires more than technical flexibility. It requires a modernization approach grounded in the realities of banking, where technology decisions, operational requirements, regulatory considerations and business outcomes must evolve together over time.

What makes composable banking work?



Discussions around composability often begin with technology: APIs, microservices, cloud-native architectures and integration patterns. While each plays an important role, successful composability ultimately depends on something broader: how banking capabilities, operational processes, data and governance models are designed to evolve over time.

This distinction matters because composability should not be viewed purely as a technology exercise. While modular architectures provide the flexibility to combine and evolve capabilities, banks do not create value by rebuilding everything within them. Recreating product rules, pricing, regulatory controls, servicing processes, and operational workflows across multiple components can introduce unnecessary complexity and operational burden. The goal of composability is to accelerate change while keeping the operating model manageable. In practice, banks should standardize and share common capabilities, while preserving flexibility in the areas where differentiation creates value.

Composable Banking Without Fragmentation

Composable banking is often presented as an antidote to monolithic banking architectures. Yet breaking a platform into smaller services does not automatically reduce complexity or increase agility and resilience.

In practice, banks can find themselves managing an increasing number of applications, vendors, data models, integration patterns and operational processes. Without clear ownership, governance and architectural boundaries, complexity may simply shift from the core platform to the connections between systems.

As composable architectures mature, the conversation is therefore evolving. The question is no longer how capabilities can be separated, but how they should interact, evolve and contribute to a more resilient, agile and governable banking architecture. **Ultimately, successful composability is less about architectural purity and more about applying the right boundaries, ownership models and interaction patterns to solve real modernization challenges.**

Composability for Business Outcomes

The practical challenge is that composability cannot be achieved simply by exposing functionality through APIs. Many banks draw on industry frameworks such as BIAN¹ to help define clear service boundaries, ownership models and interaction patterns between banking capabilities. These frameworks provide an important foundation for more composable banking architectures. To operate independently, capabilities require clear business boundaries, ownership and interaction models.

Successful composable architectures ensure that each capability owns a specific business domain, can be deployed and scaled independently, maintains clear ownership of its data, and interacts with other capabilities through standardized contracts based on APIs and event-driven interactions. Clear ownership models and event-driven interactions not only reduce dependencies, they also help maintain data consistency across independently evolving capabilities. Effective composability also depends on orchestration patterns that enable independent business domains to work together seamlessly within end-to-end processes while retaining clear ownership and autonomy. These principles help reduce dependencies, improve resilience and allow individual domains to evolve without creating complexity elsewhere in the technology landscape.

These engineering principles are increasingly shaping how modern banking capabilities are designed. The distinction is not simply architectural. It is the difference between starting with technology components and starting with proven banking capabilities. **A bank may choose to modernize a specific domain or process, but that capability should still be designed to operate at enterprise scale, support regulatory expectations and deliver measurable business outcomes.**

¹BIAN Service Landscape

Where Composable Banking Delivers Value

While every bank's modernization journey is unique, the business drivers behind composability are often remarkably similar. Banks are adopting composable approaches to modernize progressively, accelerate innovation, simplify increasingly complex technology landscapes, improve resilience and establish the foundations required for emerging technologies such as AI. The following use cases represent some of the most common areas where composable banking is creating tangible business value today.

1

Progressive Core Modernization:

Incremental change to increase speed and minimize risk.

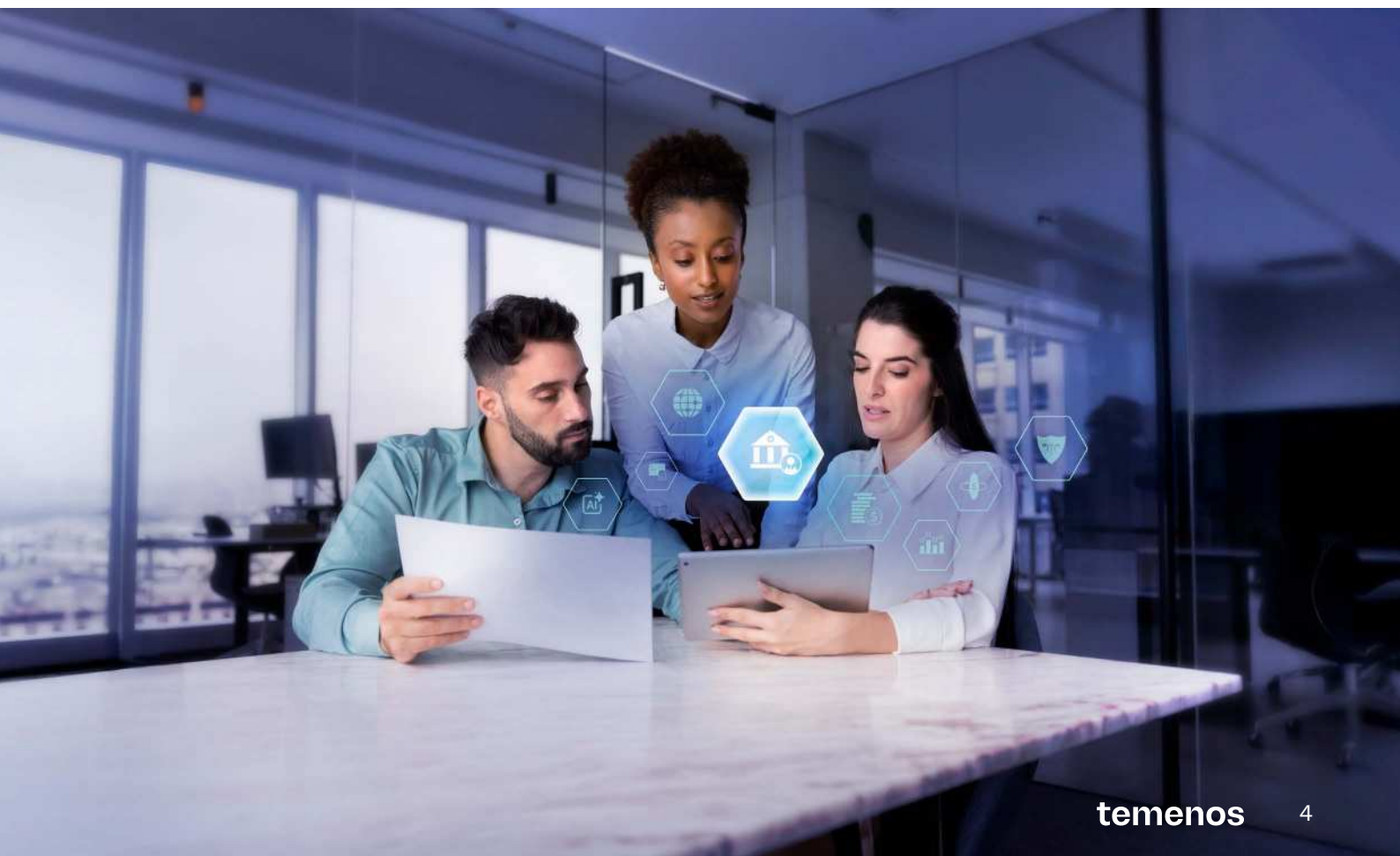
Many banks are looking to reduce dependency on legacy technology without undertaking a full core replacement. Composable banking enables banks to modernize capabilities incrementally, delivering business value earlier while reducing transformation risk. This flexibility helps banks respond to changing business needs or regulatory requirements without large-scale transformation programs.

2

Accelerating Product Innovation:

Product innovation must keep pace with shifting market dynamics.

Composable capabilities allow banks to rapidly introduce new offerings, support evolving customer expectations and respond to competitive pressures without extensive platform-wide change initiatives. Innovation becomes a continuous process rather than a periodic transformation event.



3

Reducing Complexity Across the Banking Landscape:

Consistency, simplicity and reuse create value.

Many banks operate multiple versions of similar capabilities across products, channels, business units or acquired entities. By centralizing and standardizing capabilities such as product management, pricing, limits management, authorization and servicing, banks can improve consistency, simplify operations and create a more manageable foundation for future modernization.

4

Enhancing Resilience and Reducing Operational Risk:

Modern banking requires resilience by design.

Composable architectures allow critical capabilities to be isolated, scaled independently and modernized without creating unnecessary dependencies. This can improve business continuity, operational flexibility and overall resilience.

5

Enabling AI-Powered Banking:

AI is transforming banking operations.

AI is transforming banking operations, creating greater demand for trusted data, real-time business context and clearly defined capabilities. Composable architectures provide this foundation through clear ownership models and modern integration patterns, helping ensure the consistency and interoperability required for AI to operate effectively at scale.

Whether the objective is modernization, innovation, simplification, resilience, or AI enablement, composable banking provides a practical path forward. By decoupling and modernizing capabilities progressively, banks can realize value sooner while reducing transformation risk. The result is a more adaptable technology foundation that supports both current priorities and future opportunities. In an industry defined by continuous change, flexibility becomes a lasting competitive advantage.



Applying Composability in Practice

There is no single modernization path that works for every bank. A regional bank launching new digital products faces different priorities from a global bank reducing core complexity, while incumbent banks with decades of technology investments must navigate very different constraints to digital challengers starting with a clean slate. As a result, successful modernization strategies often combine multiple approaches over time, balancing business priorities, risk appetite and operational realities.

The routes described below should not be viewed as mutually exclusive. Modernization rarely follows a single path. A bank may choose to modernize specific domains while leveraging parallel core architectures to reduce migration risk and maintain operational continuity. At the same time, it may adopt SaaS delivery for selected capabilities, reducing the burden of technology operations and allowing teams to focus on business outcomes. The most effective modernization journeys typically combine multiple approaches over time, reflecting the realities of each bank's starting point and strategic priorities.



Route 1: Extend and Innovate Around the Existing Core

The objective is to introduce new capabilities without changing core processing. Banks can deliver new customer experiences, AI-driven services, ecosystem integrations or digital propositions while preserving existing systems of record and operational processes.



Route 2: Modernize Individual Banking Domains

The objective is to progressively replace legacy functionality that has become a constraint on agility or innovation. Banks may modernize specific domains such as deposits, lending, payments, account servicing or customer positions while maintaining coexistence with surrounding systems. Over time, individual domains assume greater responsibility and reduce dependency on legacy platforms.



Route 3: Consolidate and Simplify Banking Capabilities

The objective is to centralize duplicated capabilities such as product management, pricing, limits, authorization and servicing, making them reusable across products, channels and business units. This reduces duplication, improves governance and creates a more agile, resilient and manageable technology landscape.



Route 4: Parallel Core Modernization

The objective is to reduce transformation risk. Industry approaches such as digital twins, thin-core architectures and unified ledger models allow modern capabilities to operate alongside the incumbent core, creating a controlled migration path. This pattern can support the modernization of one or multiple banking domains while preserving business continuity and operational resilience.



Route 5: Shift from Technology Ownership to Capability Consumption

The objective is to modernize both architecture and operating model. Banks consume specific capabilities through SaaS delivery, reducing the burden of operating, maintaining, upgrading and securing technology. Internal teams can focus on products, customer experiences and growth while relying on continuously evolving banking services.

How Temenos applies Composable Principles

Temenos Composable Solutions

Temenos Composable Solutions are built on the same platform and draw on the same rich, proven banking functionality as Temenos Core, but package that functionality for independent, composable adoption. Each solution is built around a clearly defined banking function with its own business logic, data ownership and operational responsibility. Designed to be deployed, upgraded and scaled independently, capabilities interact through well-defined integration contracts using APIs and event-driven services, enabling them to operate seamlessly alongside Temenos and non-Temenos systems alike.

This approach creates clear architectural boundaries, minimizes dependencies and allows banks to modernize specific domains incrementally without disrupting the wider banking landscape. The result is composability grounded in proven and easy-to-use banking functionality, real-world operating models and decades of industry experience.



Business capability ownership: one domain, one responsibility



Independent lifecycle: deploy, scale and upgrade independently.



Data ownership: dedicated data model and persistence.



Headless by design: supports any channel or experience layer.



Contract-driven integration: APIs and events define predictable interactions.

This also underpins the modernization approaches Temenos supports, helping banks introduce modern capabilities alongside existing banking environments while progressing transformation at their own pace.

[Learn more about our Composable Solutions](#)

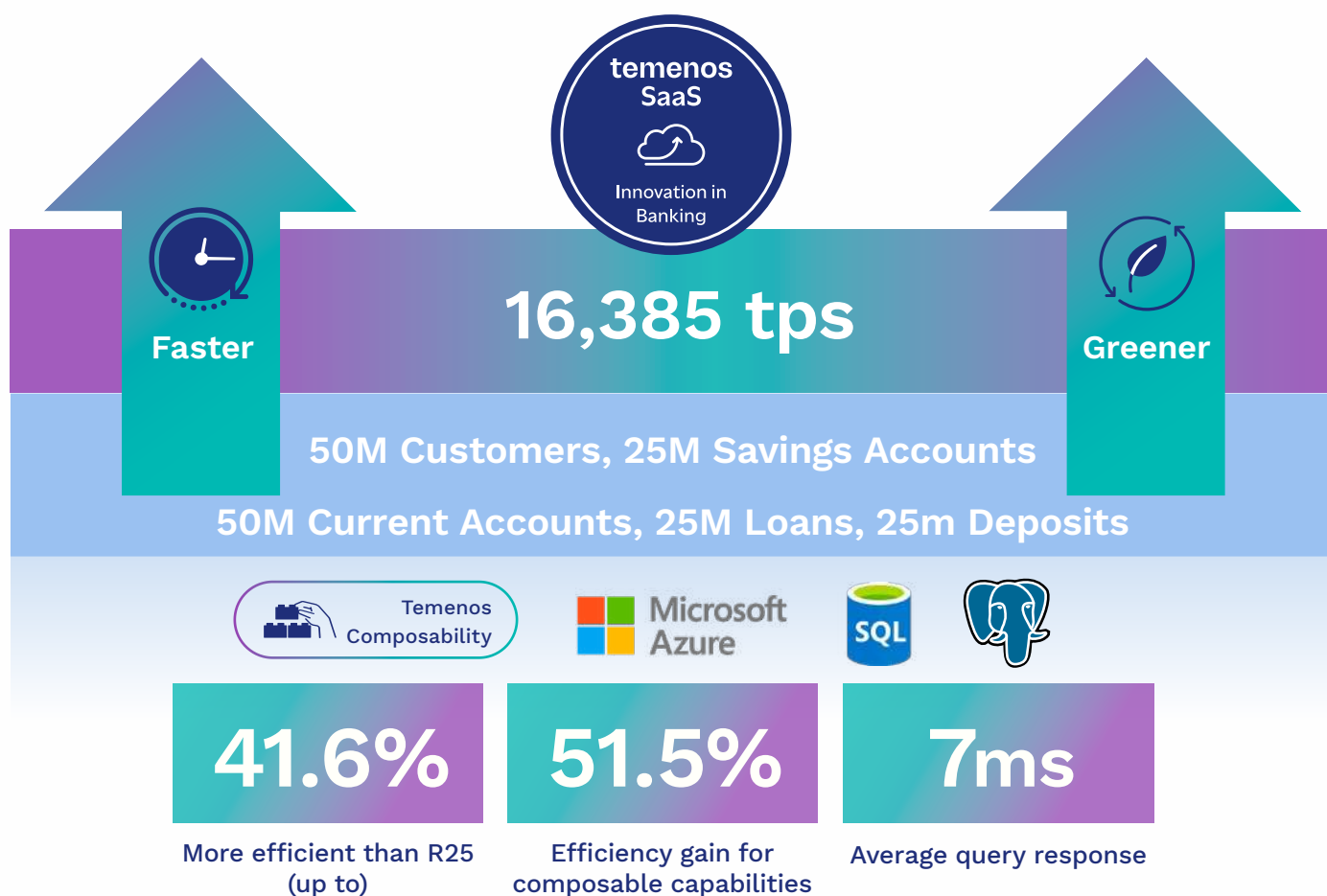
As every modernization journey is unique, there is no single roadmap for all banks.

The most successful composability strategies align architecture decisions with business objectives, risk appetite and operational priorities rather than forcing banks towards rigid technology destinations.

Modernization at Scale

Composable banking must do more than improve flexibility. It must also support the performance, resilience and scalability required for modern banking.

The Temenos 2026 Performance Benchmark demonstrated that integrated solutions, composable capabilities and AI-enabled workloads can operate together within a realistic banking environment. The results provide evidence that progressive modernization through composability can form part of a scalable modernization model, not just an architectural concept.



[Learn more about the 2026 Performance Benchmark report](#)

Composability in the Real World

Composable banking is ultimately about enabling continuous evolution. When applied with clear capability boundaries, ownership and governance, it allows banks to modernize, innovate, accelerate and simplify without sacrificing resilience, operational control or business continuity.

Continue the Conversation

Every modernization journey starts from a different place. The perspectives presented in this paper are informed by industry developments and by the experiences of our clients, partners and modernization teams. With more than 950 banks using Temenos core banking software today, our experience spans a wide range of modernization journeys, giving us first-hand insight into how they evolve critical banking capabilities while strengthening resilience, simplifying operations and creating new opportunities for growth.

If you are exploring the modernization of your core banking environment or evaluating the role of composable banking within your future architecture, we would welcome the opportunity to share our experience and insights.

Explore how Temenos can support your ambitions

Explore Temenos Composable Solutions

Discuss with a Temenos expert

About Temenos

Temenos (SIX: TEMN) is a global leader in banking technology. Through our market-leading core banking suite and best-in-class modular solutions, we are modernizing the banking industry. Banks of all sizes utilize our adaptable technology – deployed on-premises, in the cloud, or as SaaS – to deliver next-generation services and AI-enhanced experiences that elevate banking for their customers. Our mission is to create a world where people can live their best financial lives.

For more information, please visit www.temenos.com



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