

Core Banking Modernization powered by Temenos



FinTechs/BigTechs/challenger banks are leveraging cloud-based core platforms and easily integrating with the partner ecosystem to take offerings to market faster. These dynamics demand that incumbent banks (many with legacy core systems) transform into digital banks to match the pace of their faster counterparts. The only way to enable this transformation is through core modernization.

But core modernization is an enterprise-level change that raises several questions for banks. Should it be on-premises or on the cloud? Will it be in phases or one large implementation? What's the best way to securely migrate data from legacy?

**Capgemini's Core Banking Modernization** offering addresses these questions and more, helping banks modernize their core and achieve business outcomes such as higher revenue growth, reduced costs and de-risking their operations.

With Capgemini's Core Banking Modernization offering, banks have a proven, methodical approach to core modernization that will help them keep pace with digital competitors and provide customer-centric experiences.

## Why is Modernization Necessary?

Customers today want an experience that transcends the purely transactional. It's not enough to have a brick and mortar building with customer agents or mortgage lending agents offering loans. Today, newer banks are offering customers a "one-stop shop". Value-added services such as buying a house or car can be accessed by customers through connected marketplaces and other platforms. Customers can then search, buy and fund their purchases in a few steps. These banks are practicing the "banking-as-alifestyle" model, reimagining customer journeys to provide valuable advice, products and services with one click at the right time in their customers' lives.

Not bound by legacy systems, FinTechs/BigTechs/challenger banks are harnessing cloud-based core

## Enabling banking-as-a-lifestyle requires:

- An open platform within an extended collaborative ecosystem that can drive new business models
- Cloud-enabled solutions and "on-demand" servicing models that leverage the power, extensibility and efficiency of the cloud
- Supporting emerging technologies, including artificial intelligence (AI) and machine learning (ML)-driven capabilities to improve customer insights, drive customer outcomes and enhance risk and fraud management

platforms that easily integrate with the partner ecosystem, driving innovative offerings to market faster and meet the evolving customer demands. These dynamics demand that incumbent banks transform into digital banks and also have the flexibility and agility to respond to changing customer and business needs to match the pace of faster counterparts.

But for many banks, this can be slow-moving. In an open banking era of data sharing, open APIs and open ecosystems, banks that are constrained by legacy core systems struggle to rise to the challenge posed by new entrants.

With bulky, unwieldy legacy core systems making it difficult for integration with third-party applications and platforms, there is only one remedy for incumbent banks – modernize the core.

Legacy systems can prevent incumbent banks from enabling banking-as-a-lifestyle, as well as affect the firm's bottom-line. In fact, according to the Everest Group's "Core Modernization for Building Future Banking Experiences" report, 95% of mid-market banks in North America are currently not satisfied with their core banking system capabilities.<sup>1</sup>

Additionally, legacy systems were behind some of the banks' biggest challenges ( Refer to Fig. 1).

Figure 1. Challenges Attributed to Legacy Core Systems, Source: Everest Group (2020)



<sup>&</sup>lt;sup>1</sup> Core Modernization for Building Future Banking Experiences, Everest Group, April 2020.

Figure 2. Banks with modern core platforms can achieve higher revenue growth, drastically reduce cost and de-risk their operation

- Enable effective ecosystems and support Open Banking Cloud-based, modular architectures and communication through APIs will enable smooth collaboration with FinTechs. This allows banks to scale innovation, offer new services and products without building the capabilities inhouse.
- Provide seamless personalized offerings and experiences Data is frequently stored in several
  product-specific core systems. As a result, customers can't get one single view of their relationship
  with banks. Modern systems can support real-time data analytics enabled by integrated customer
  and transaction data to drive personalized experiences.



- Strategically focus Modern platforms can help banks focus on customer propositions and servicing, rather than building and running the bank.
- Leverage emerging technologies Legacy platforms limit the banks' capabilities to leverage the latest technologies such as AI and robotics, thus putting the firms at a significant disadvantage.
- Go fully digital and expand into new geographies.
- Decrease costs IT funds are largely spent on support and maintenance of legacy systems. With
  manual software regression testing, minimal or no DevOps adoption, as well as a lack of
  straight-through processing, legacy systems can end up with banks spending more money than
  needed.



- Decrease Time to Market Legacy architectures are monolithic, leading to multiple
  interdependencies and bottlenecks that prevent accelerated product development and launch.
  Modern platforms are standardized and cloud-native, allowing for easy adoption of automated
  testing and DevOps that can increase agility and efficiency.
- Move into a cost optimal and flexible resource utilization model to address variable demand for change and transaction volumes.



• Quickly address **regulatory compliance** by being able to implement regulatory changes swiftly.

Core Banking Transformation for large Irish retail bank The bank had an inflexible, product-centric core banking legacy system that limited customer segmentation and support for customer-focused channels and services and slowed down time to market for new products and services. Cappemini created reference architecture business processes and roadmap and deployed a version of Cappemini's Connected Banking platform underpinned by Temenos Transact. When implementation is completed, legacy systems will be decommissioned, allowing cost savings and improved efficiencies via the cloud-based platform, as well as enabling quick creation of customer-segment-focused products and services.

Capgemini in Action

#### What are the Paths to Modernization?

Core Modernization is an enterprise level-change; banks face a unique set of challenges on their journey. These include build vs. buy decisions, phased vs. big-bang implementations, and choosing between on-premises vs. cloud implementations. Additionally, banks are faced with altering business processes, evangelizing Agile and DevOps processes, ensuring minimal impact to integrating peripheral systems, and migrating terabytes of secure data from legacy to modern cores. Organizational change management, including staff training and enablement, is also important. Finally, banks must also accelerate the overall implementation to ensure business benefits are realized.

Capgemini's Core Banking Modernization offering helps incumbent banks undergo legacy modernization, address all the challenges above and achieve business outcomes to remain competitive.

There are many approaches a bank can take to modernization, with three options supported by Capgemini: Full Core Replacement with a New Tech Stack, Progressive Modernization and Greenfield Banking via a New Stack.

Full Core Replacement with a New Tech Stack is the riskiest option that occurs when banks need to urgently migrate to a new platform and retire their legacy systems for various reasons (e.g. regulation). Progressive Modernization is a low-risk option that works to retain the legacy platform but progressively minimize it ("hollow the core") over time as a modern microservices-based architecture is built around it. This approach, which works as long as the current core system is viable for 5-10 years,<sup>2</sup> allows banks to build the architecture around the most important customer journeys.

**Greenfield Banking** via a New Tech Stack is riskier than Progressive Modernization but also faster to adopt. Here, banks can instantly transform into digital banks as a cloud-native core platform is implemented and new customers directly onboarded.

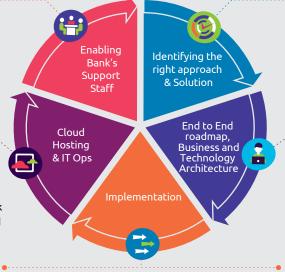
## What is Capgemini's Core Banking Modernization Offering?

Capgemini's approach to core modernization is clientoriented and looks at the end-to end-solution – we align with your business priorities and operating model by collaborating with your Business, Operations, Data and IT teams. Together, we figure out the right solution and implementation approach for the entire lifecycle covering solution and roadmap definition, implementation, data migration, application value maintenance, bank support staff enablement, and ongoing IT Operations and maintenance for the bank.

Our Core Banking Modernization approach is represented in the diagram below:

Figure 3. Capgemini's Core Modernization Offering

- Conducting trainings for business & technical support staff & helping the bank with change management
- Creation of IT Ops & SCM approach
- Creation of User guides and Operational documents to ensure smooth BAU operations
- Charting out cloud migration strategy.
- Cloud Architecture
- Hosting the platform on cloud
- Running the IT Ops for the bank which covers Infrastructure and application
- This is optional part of the offering depending on the bank's decision.



- Core Banking Implementation powered by Agile and DevOps
- Integration
- Testing
- - Data Migration
  - Cloud Hosting
  - Production go-live and support

- Understanding of Client's business objectives, ecosystem
- Evaluation of approach and suitable solutions.
- · Business case design
- Final recommendation
- Hosting options
- End to end roadmap & approach for Core Modernization addressing
- Business priorities
- Business Architecture
- Technical Architecture
- Implementation, Integration and testing approach and plan
- Data Migration Approach

<sup>&</sup>lt;sup>2</sup> Next-generation core banking platforms: A golden ticket?, McKinsey Analysis, August 12, 2019.

We leverage our proven Redesign through Application

Package Iterative Development (RAPID) methodology, which enables us to accommodate Temenos-specific

implementation processes ensuring alignment with

**Capgemini's Core Banking Modernization** offering is underpinned by **Temenos**, the industry leader in banking software. With its open, integrated, componentized and upgradable software that offers breadth and depth of functionality across the banking value chain, Temenos is the top choice for banks as they undertake digital transformation initiatives.

As a key global strategic partner of Temenos, Capgemini offers comprehensive services and solutions that help banks unlock the full value of this powerful platform and create a core banking system environment that is simpler and more efficient, highly flexible, and that fosters responsiveness to the dynamic banking environment.

# Accelerating & de-risking the Implementation journey

With over 25+ implementations, Capgemini has created reusable implementation frameworks and assets to ensure that all aspects and phases of Core Banking Modernization (including implementation, testing and data migration) are covered.

Temenos best practices within our delivery cycles.

Moreover, RAPID ensures alignment of business and technology workstreams across the program lifecycle by identifying key outcomes and deliverables, as well as the workstream interaction. It supports iterative

cycle delivery methods within various phases to

provide early/ongoing visibility of outcomes.

Capgemini utilizes **proven assets and accelerators,** from standard set of templates and processes, architecture blueprints, Integration patterns, and API Libraries to test automation suites and ready DevOps and cloud implementations for Temenos Transact that help us reduce the risk and time to implementation for our clients. These assets/accelerators have been built over time and cover end-to-end phases of implementation and after "go-live".

Figure 3. Capgemini's Assets and Accelerators



# Architecture and Approach

- Capgemini Implementation Body of Knowledge (CIBOK) repository of processes, templates, guidelines and tools with 500+ assets
- Connected Banking Reference Architecture
- Reference Architecture for Transact covering various domains like Integration, Security, DevOps, Infrastructure, API
- Product configuration automation
- Transact customization and API design best practices/guidelines



# Implementation and Testing

- Code Quality Transact Customizations, Code review utility, Coding best practices – Java customizations
- Environments, Configuration and Release Management – XPaaS Framework
  - CI/CD Implementation for Temenos
    Transact
- Automated Infrastructure creation scripts – Cloud agnostic for Transact
- Test Automation ADAPT test automation framework
- 9300 + Test cases for Model bank with 3000+ automated
- Environment agnostic Test Automation framework for APIs, UXP
- Automated testing integration with CI/CD pipeline
- Unit test automation using Temenos frameworks
- Non Functional Requirements
- Close of Business Batch tuning guidelines and key steps
- List of standard indexes to be applied



#### Data Migration and Production Readiness

- Data Migration Workbench & Transact Data Upload Tool
- Integration with Temenos Transact Data Loader for seamless migration into Temenos Target Environment
- Operational readiness template
- Close of Business Automation and Monitoring
- Automated System Health checks

## Why Temenos

Temenos's market-leading core banking platform - Temenos Transact - provides product definition, transaction processing, unparalleled operational scalability and functional depth for retail banking, corporate & transaction banking and private wealth banking.

With over 3,000+ banking clients in over 150 countries, Temenos provides a Country Model Bank framework which enable faster implementation and expansion into new countries at decreased costs while remaining in compliance with local regulations.

Temenos has also built an ecosystem of products around Transact to help banks address their growth objectives. These products are modular in nature and can be bolted onto core banking, including Payments, Infinity Wealth (wealth management), Infinity – Digital Front Office, Fund Administration, Data & Analytics, Financial Crime Mitigation, and Data Lake.

Figure 4. Reasons Banks Buy Temenos

#### Packaged, Upgradeable Software

	Breadth & Depth of Functionality
《	Continuous Operations
	Cloud-Native, Cloud Agnostic
<	Microservices, Containers, APIs

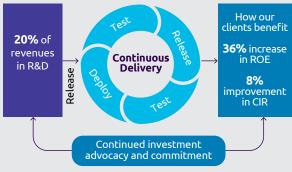
Modern Technology



**Country and Service Model Banks** 

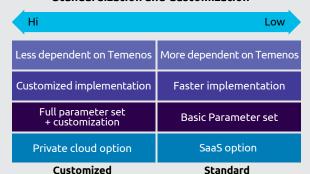
Rapid implementation and Regulatory Compliance

#### Market Leading Investment in Product



Confident of a future-proof solution

#### Standardization and Customization



Choose where to differentiate

Temenos Transact
Core Banking Platform
implementation for
Canada's largest
Credit Union

The credit union had a legacy platform that was difficult to support or enhance and required high maintenance costs. Additionally, data warehousing and reporting tools could not be properly integrated to the platform. Cappemini partnered with a client to successfully replace the legacy with a modern Temenos Transact platform requiring significant data migration. Currently, 20+ GB of member data has been migrated to the modern platform, allowing customer-based views that permit easy data access and governance, as well as low maintenance costs.

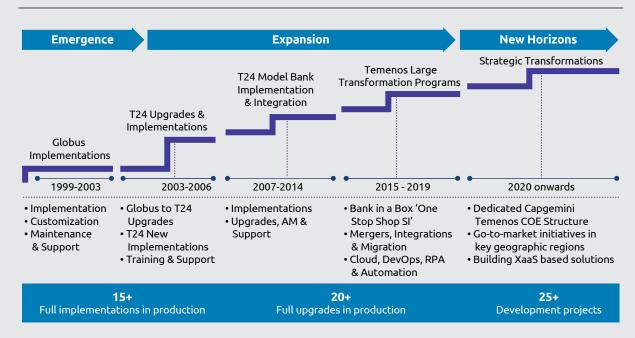


## Why Capgemini?

BigTechs, challenger banks and other digital banks are no longer disruptors in the banking industry. They are here to stay, and incumbent banks must evolve quickly to maintain market share. With a deep knowledge of financial services and banking domain expertise and delivery via our leading Banking Industry Practice, Capgemini can enable banks to meet the challenge through Core Modernization powered by Temenos.

Capgemini is a certified Global Partner to Temenos since 2010. Our Temenos Center of Excellence works closely with Temenos to get an early understanding of new versions and to co-develop innovative solutions for our clients. The strength of the Capgemini-Temenos relationship has grown significantly since it began in 1999. Together, we bring experience, partnership, best practices and knowledge to ensure a quality delivery with governance, providing immense value to our clients.

Figure 5. Capgemini's Experience with Temenos



Contact our experts
Carlos Salta
Global Banking Practice Head
carlos.salta@capgemini.com
Follow Carlos on LinkedIn

Sarang Bondre
Global Temenos CoE Head
sarang.bondre@capgemini.com
Follow Sarang on LinkedIn

Tarun Kapoor
Global Temenos CoE - Technology and Architecture Head
tarun.kapoor@capgemini.com
Follow Tarun on LinkedIn



# About Capgemini

Capgemini is a global leader in consulting, digital transformation, technology and engineering services. The Group is at the forefront of innovation to address the entire breadth of clients' opportunities in the evolving world of cloud, digital and platforms. Building on its strong 50-year+ heritage and deep industry-specific expertise, Capgemini enables organizations to realize their business ambitions through an array of services from strategy to operations. Capgemini is driven by the conviction that the business value of technology comes from and through people. Today, it is a multicultural company of 270,000 team members in almost 50 countries. With Altran, the Group reported 2019 combined revenues of €17billion.

Learn more about us at

www.capgemini.com

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