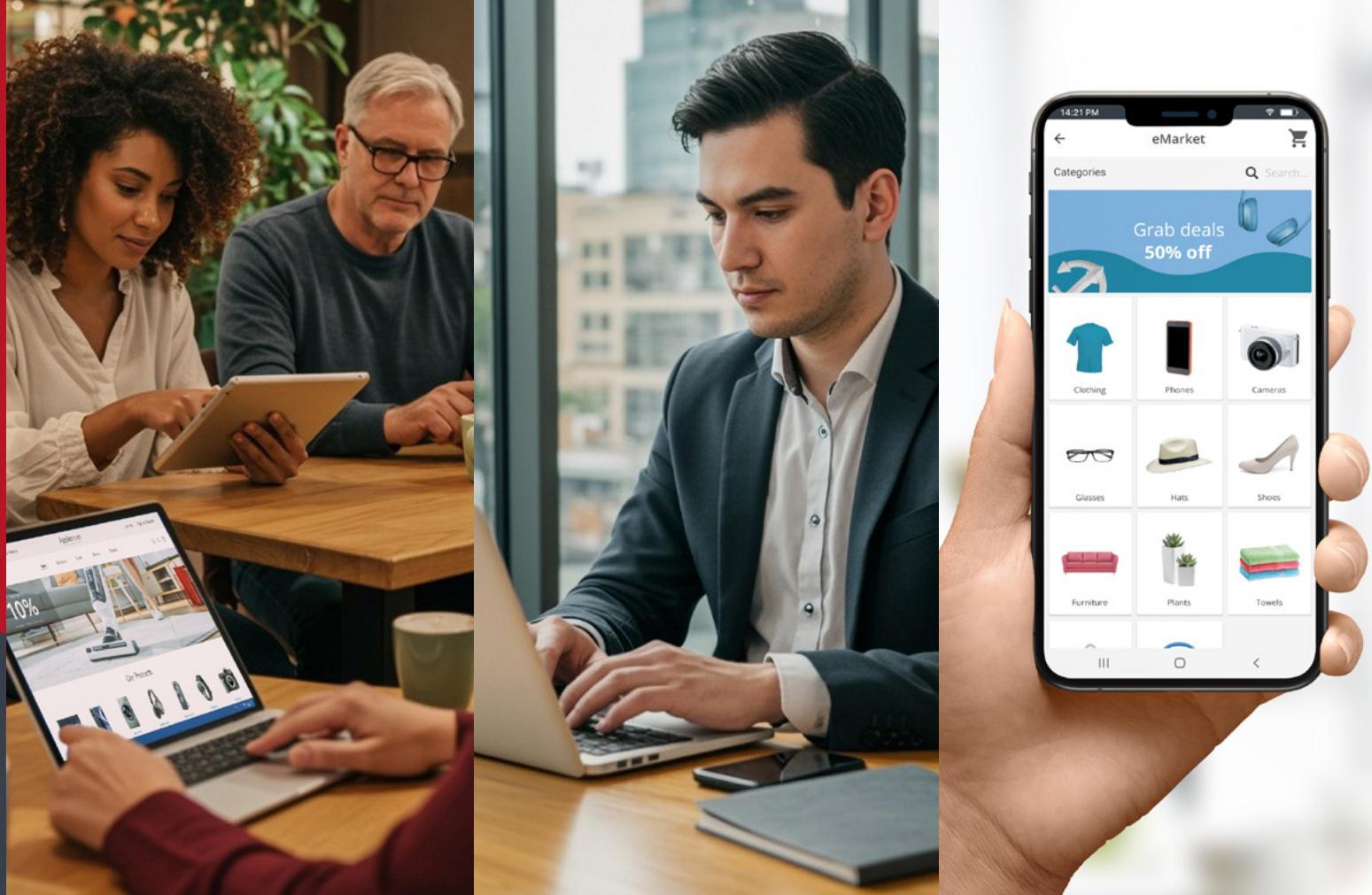


# Winning the Embedded Lending Game

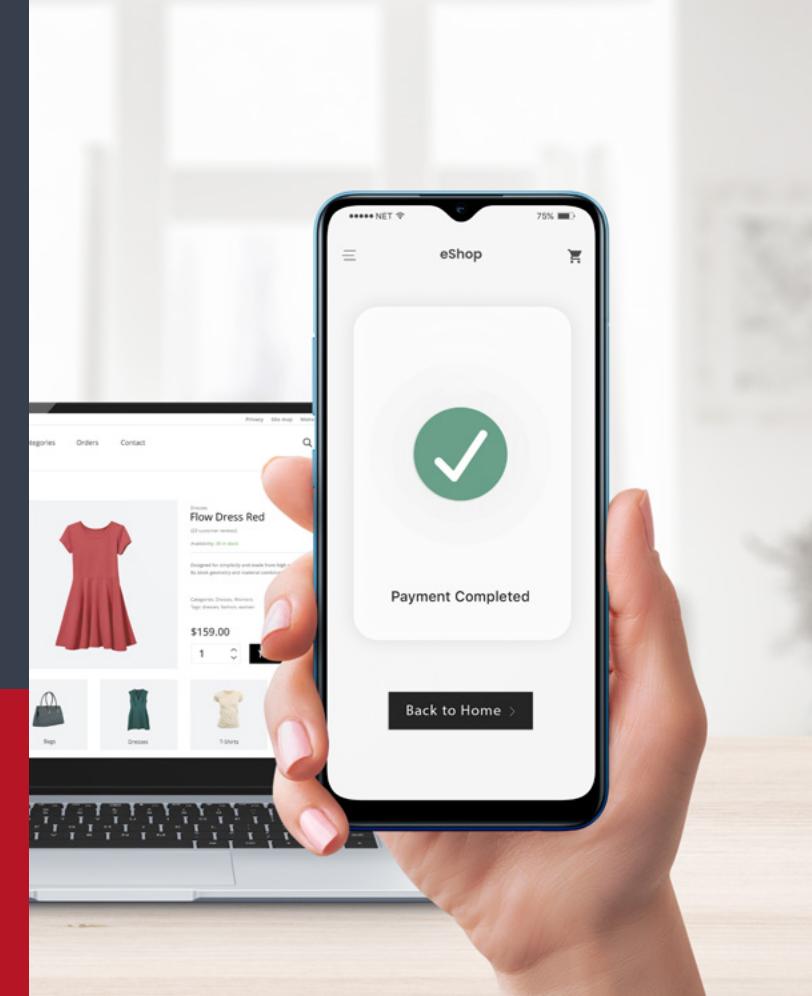
A Strategic Roadmap for  
Banks to Succeed



The shifting consumer habits and a surge in digital banking is constantly pushing financial institutions to deliver more contextual products and services based on life stages of customers. The rise of fintech and neo-banks has intensified competition, keeping banks on their toes. On the other hand, the global movement towards financial inclusion is driving efforts to bring banking services to the unbanked or underbanked. These emerging trends in banking along with the convenience of digital access to alternative financial offerings and products, have all pushed financial institutions and non-financial institutions to embed banking services within the primary customer journeys— what we know today as Embedded Finance.

Embedded Finance can be realized within FIs and non-FIs in various forms - Embedded Lending, Embedded Payments, Embedded Investment, Embedded Trade, and Embedded Insurance. The scope of this thought paper is focused on **Embedded Lending** - one of the pillars of embedded finance.

Embedded Lending is desirable and huge opportunity globally, for banks and financial institutions, yet many are still figuring out how to conquer this fairly new territory. While there are many aspects that need to go right, most importantly, Embedded Lending demands a reimagined culture, and a robust architecture designed to build an ecosystem that fosters seamless collaboration and empower stakeholders to leverage their strengths. This thought paper provides a strategic roadmap for banks looking to establish such an ecosystem.



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# Decoding Embedded Lending

Key Players, Opportunities, and Challenges Involved

# What is Embedded Lending?

Embedded lending is the strategic integration of loan application, approval, and sometimes even servicing functionalities directly within the primary customer journeys of non-financial platforms and applications. This integration leverages APIs to seamlessly connect the platform's customer data and functionality with the lending partner's credit assessment and loan management systems.

Embedded lending disrupts traditional lending models by embedding financial services within non-financial ecosystems. It fosters a win-win situation for lenders, businesses and customers, offering a more convenient and data-driven lending experience for consumers.

## Key Players Involved in a Typical Embedded Lending Journey

Brand	BaaS	Banks
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**Peter Walker**

24 years old. Living in Melbourne. A young professional UX designer, who has just started working. Is a millennial and is currently looking to buy a new high-end laptop that has just launched in the market.

Digital Habits: Android fanatic. Generally knows what he need, and when & where to buy it. Prefers to make his purchases through his mobile.

**Looking for**

A simple way to purchase with just a few clicks and be able to pay for it over the next 3 months.

experience

automation

insights

speed

**Customer buying a high end laptop through a mobile**

#1 Receives an Email from an e-commerce platform about a new laptop launch

#2 Visits the e-commerce app from his mobile and views product info

#3 Proceeds to buy the product and goes to the payment page

#4 The app gives him an option to pay either in full, or through EMI over 3 months

#5 He opts to pay as a 3-month EMI payment

#6 Provides his credit or debit card details and make the purchase

**#7 His EMI request is instantly approved, and purchase transaction completed**

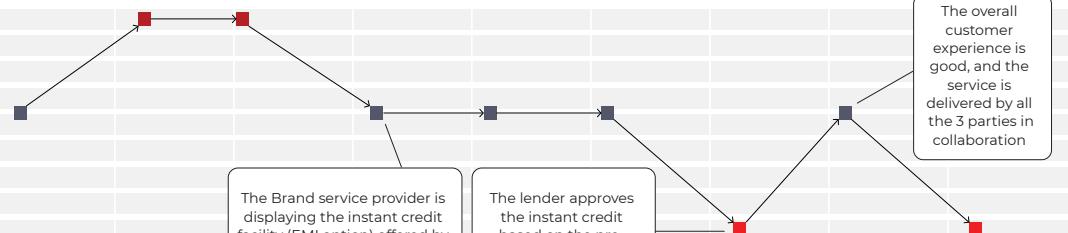
#8 He is happy with the experience and gives good rating

**#9 Over 3 months, his card gets debited for the EMI amount**

**1. Brand**  
(Merchant DigitalStore)

**2. SaaS/Baas Service Provider**  
(Hosts the Brand and connects to backend Lenders-Ex: an e-commerce platform)

**3. Lender**  
(Backend Partner - Bank or Financial institution)



The Brand service provider is displaying the instant credit facility (EMI option) offered by the backend partner financial institution (Lender)

The lender approves the instant credit based on the pre-assessed credit rating of the customer

The overall customer experience is good, and the service is delivered by all the 3 parties in collaboration

# Emerging Opportunities in Embedded Lending

## Opportunity #1



### Large unbanked population with mobile access

Markets with large unbanked populations but widespread mobile app usage present opportunities for financial inclusion. Banks can partner with telecoms and messaging apps for digital onboarding and credit access. For example, **KASIKORN LINE** (a venture between Thailand's Kasikorn Bank and LINE BK) has issued unsecured loans to over 300,000 customers, many previously unserved by traditional FIs.

## Opportunity #2



### Millennials and demographic segments that may or may not be banked

Millennials prioritize user experience and prefer financial services via apps. Embedded lending allows banks to reach this segment by partnering with e-commerce platforms to offer solutions like Buy Now Pay Later. **ICICI Bank (Pay Later)**, **BRI Bank (Ceria)**, and **UBP's** collaboration with **Samsung** illustrate successful ventures targeting millennials.

## Opportunity #3



### SMEs with or without appropriate financial reports

SMEs often lack access to traditional lending due to insufficient financial documentation. Banks can partner with e-commerce platforms to offer digital onboarding and financing. **Goldman Sachs** and **Amazon**, for instance, provide a revolving credit line to eligible Amazon sellers via a fully digital process, supporting small business growth.

# Emerging Opportunities in Embedded Lending

## Opportunity #4



### Customers looking for loans for travel purposes

Travelers often seek flexible payment options for trips. Embedded lending partnerships, such as **Marcus by Goldman Sachs and JetBlue**, offer installment loans with no fees or deposits directly via JetBlue's app. This approach simplifies financing for travelers and enhances customer experience.

## Opportunity #5



### Gig workers

Gig workers need flexible financial solutions to match irregular incomes. Banks can partner with gig marketplaces to provide tailored benefits. For instance, **Lean, a US-based start-up**, collaborates with gig platforms to offer banking services and financial ecosystems designed for gig economy workers.

## Opportunity #6



### Life-stage-specific products

Tailored financial products aligned to life stages like education loans, mortgages, or car financing can enhance customer engagement. **Virgin Money's Home Buying Coach app** helps first-time homebuyers navigate the process and set realistic goals. Banks also partner with car and real estate marketplaces to embed lending in primary purchase journeys.

# Challenges Encountered in Offering Embedded Lending Services

The above opportunities appear exciting and can be potential gamechanger for banks looking to increase customer acquisition and build new revenue streams. However, the road to leveraging these opportunities has several challenges:



**Technology architecture limitations:** Banks and BaaS partners often depend on banks' existing technology stack to deliver these products. But banks' technology architectures weren't built with BaaS in mind. BaaS providers have no option but to build on top of banks' existing tech stacks. This limits how much complexity BaaS providers can eliminate through a modular platform of their own.



**Managing multiple stakeholders:** Embedded lending involves multiple players – bank, lending platform, a BaaS provider, and other third-party services. Ensuring seamless and secure data exchange between requires robust and standardized integration architecture.



**Risk assessment:** Embedded lending often involves smaller loan amounts than traditional lending and limited data from the lending platform. Banks need to adopt new risk assessment models that leverage alternative data sources and real-time spending behavior to accurately assess creditworthiness.



**Reduced control:** In these models, customer experience hinges on the non-bank platform's user interface and functionality. Consequently, banks cede some control over the customer experience, not being able to ensure it aligns with their own brand and customer experience standards.



**Evolving regulations:** As embedded finance continues to grow, regulators are tightening up the rules on embedded banking business models, like the OCC in the US. Banks remain responsible for compliance, and must ensure their partners implement mandated processes, controls and disclosures.



**Loss of primary relationship:** In embedded lending, financial services are integrated into non-bank platforms, such as e-commerce websites or mobile apps. The primary interaction point for the customer is the non-bank platform, not the bank. Consequently, banks might lose the opportunity to directly engage with customers, potentially weakening customer relationships and loyalty.



**Brand and reputation:** As customers associate financial services with the partner platform than with the bank, it dilutes bank's brand identity and reduces perceived value of bank's services. Furthermore, any negative experiences with the service could adversely affect the bank's reputation, even if the bank is not directly at fault.



**Adapting a conducive culture:** For a successful embedded lending model, banks need to adopt a collaborative and technology-driven mindset to work closely with non-bank players and integrating services into their platforms. This represents a significant cultural shift for most banks. Their workforce may need to develop new skills and embrace a more agile and innovative approach.



# Making Embedded Lending Work

Ecosystem Approach and Architectural References To  
Build a Robust Embedded Lending Model

# Delivering Excellent Propositions Through an Ecosystem Approach

Delivering embedded banking propositions tests the ability of the stakeholders to deliver complex digital propositions at scale. To make embedded banking effective, brands, BaaS providers and banks need to work together to design, develop and deliver new propositions and journeys that add value in customers' contexts. The promise of embedded banking is to integrate relevant capabilities into customers' journeys at their point of need.

Effective collaboration is imperative for a robust embedded lending model. Banks and other stakeholders must learn to embrace an ecosystem mindset that enables this collaboration.

## Key Tenets to Embrace the Ecosystem Approach

- Build a customer-centric culture and align all initiatives towards this end goal
- Execute decisions at pace and work collectively upon budgets, pricing, compliance, and strategy
- Ensure flexibility to accommodate products and development processes desired by partners
- Align people, processes, and technologies needed for safe and effective sharing of complementary data and analytics
- Include risk managers and regulatory compliance experts right from the outset, and deliver the intent of the regulations
- Build trust and confidence through transparency with your partners
- Define your commercial terms clearly, and help partners understand how you want the commercial relationship to work



## Architectural References to Build a Robust Embedded Lending Model

The following architectural references will enable the stakeholders to design, develop, and deliver an embedded lending solution with faster time to market. Each reference architecture artefact, on its own, provides a concise representation of the solution in that domain.

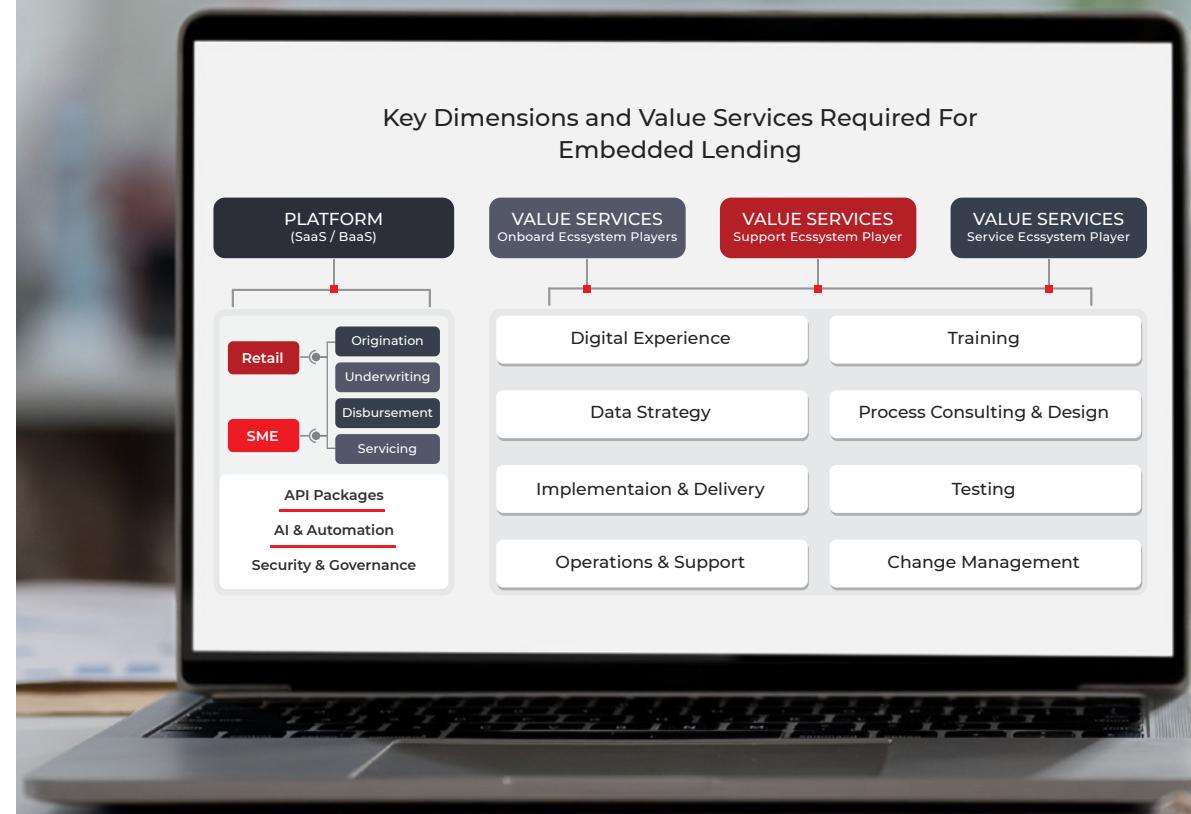
These references will help banks build a robust, composable, microservices-driven architecture that facilitates collaboration and workflows required for a robust embedded lending model.

#1

## Solution Dimensions

To offer an embedded lending solution, the financial institutions need to consider an ecosystem providing value added services, along with a robust solution platform to support the capabilities, which shall provide an enhanced customer experience. In the financial services domain, businesses follow traditional strategies to deliver products to market.

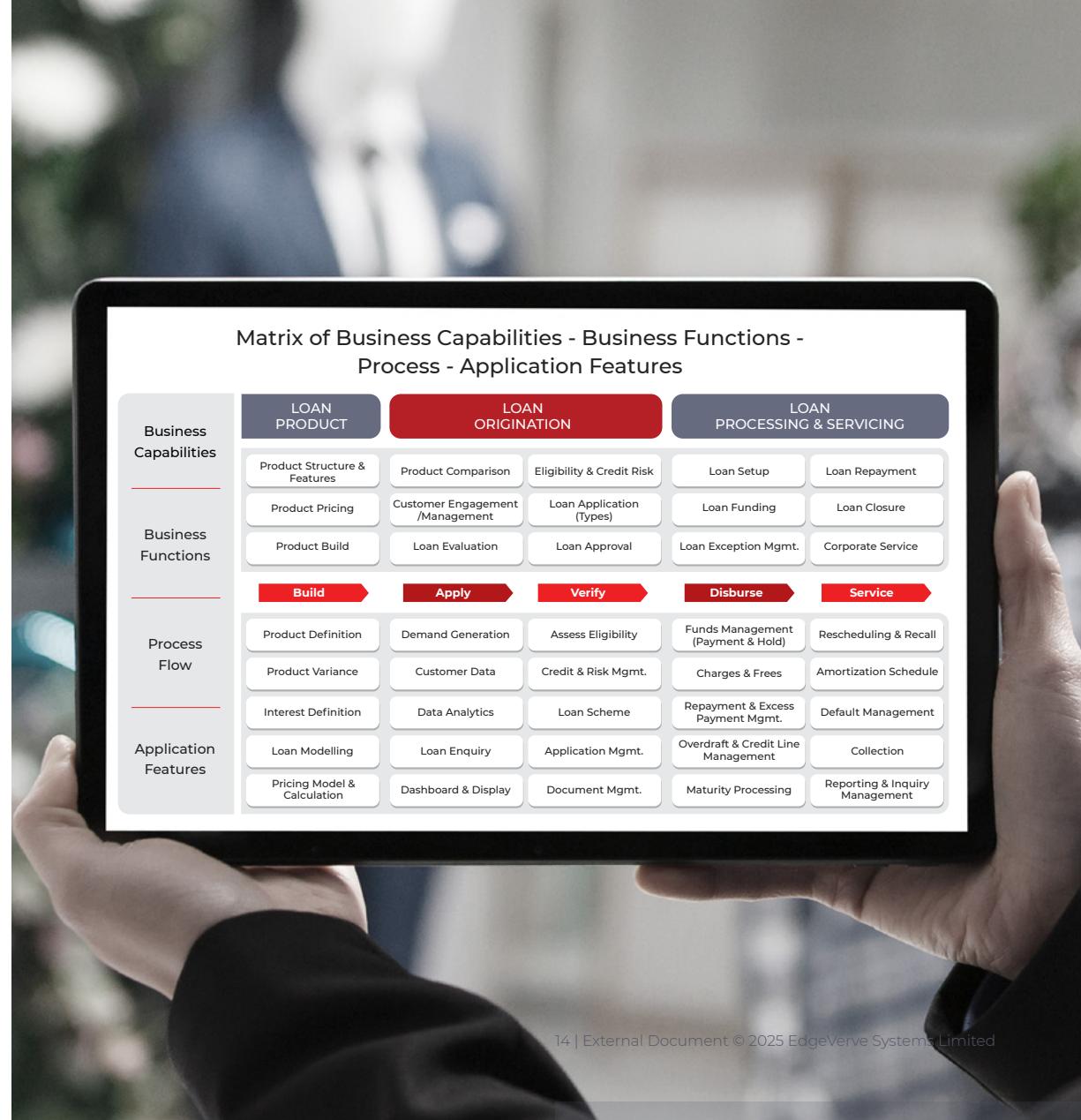
Most commonly, financial institution owned channels, branch networks, and structured retail partners. The diagram indicates the solution dimensions that support embedded lending solution.



# #2

## Business Capability Matrix

The business capability model provides a visual depiction of the organization's capabilities and engagements. It serves as a clear framework for strategic planning and modernization while ensuring common understanding of business capability, its gaps, and empowering stakeholders with a foundation for making informed architectural decisions.

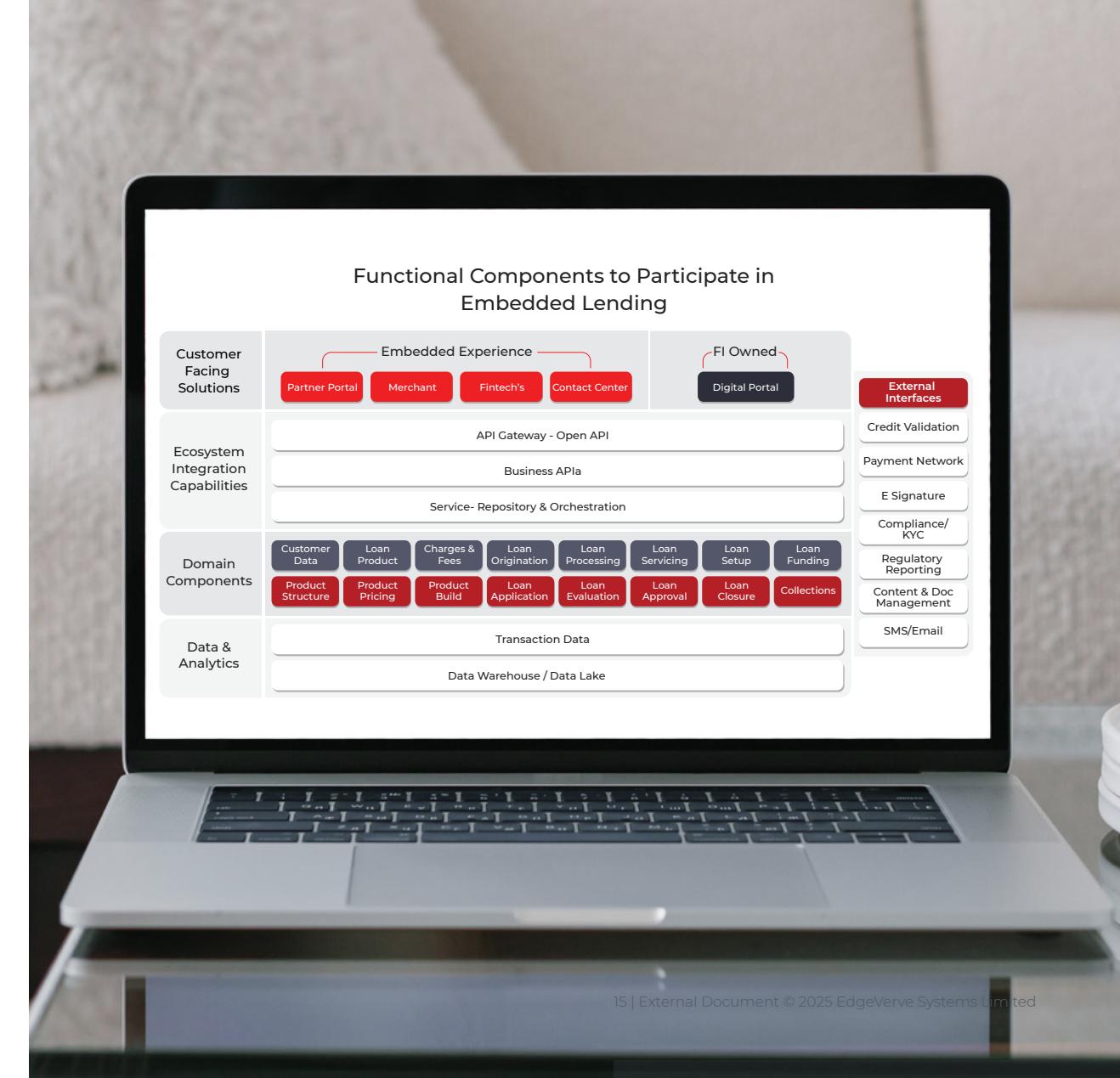


## #3

# Functional Architecture

Banks need to build a functional landscape where different players can seamlessly collaborate based on mutually agreed rules. The ecosystem should be capable of handling context-specific products for different customer segments (retail, SME, corporate). To support an embedded lending experience, non-banks should build a bottom-up services orchestration framework encompassing the relevant functional capabilities.

Embedded lending also requires other capabilities, such as payments, ledger, collateral, and collections to complete its proposition. It must integrate with other external systems, such as transaction rails, systems for KYC and compliance, etc.

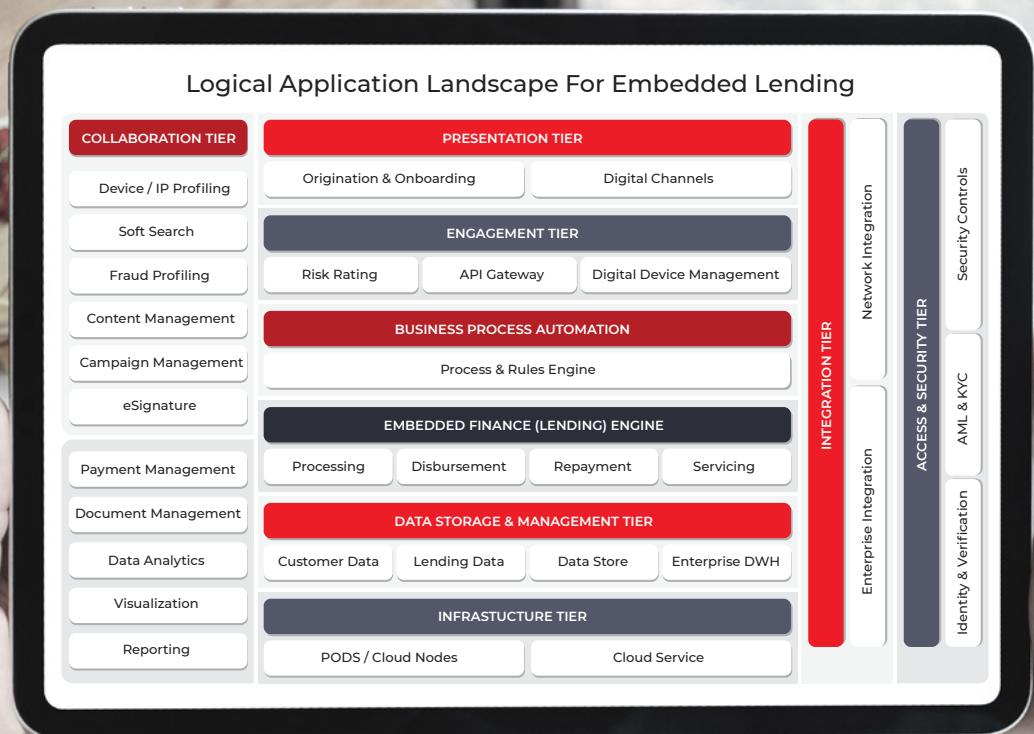


# Application Architecture

#4

The diagram depicts the application landscape for lending solution layered across the architecture tiers supporting its alignment with business capabilities and functions. It also indicates the satellite applications (collaboration tier) that could be part of the financial institution's ecosystem.

A key aspect of the solution is its ability to interface with the wider enterprise applications landscape of the financial/non-financial institutions using APIs, enabling enterprise applications to easily access embedded lending services.



## #5

## Composable Services

To conceptualize an embedded lending architecture consumable as SaaS, at a logical level, the following six key composable services are required to interface over APIs, with the non-FIs/FIs/Fintech ecosystem:

- 1. Origination and Onboarding:** Supports user registration, onboarding, risk profiling, and credit approval while complying with regulations. Includes notifications for application, account, or payment progress.
- 2. Risk Rating:** Uses AI/ML models for risk scoring and offer suggestions, referencing external credit scoring APIs, with optional manual overrides.
- 3. Processing:** Manages customer loan accounts, including creation, updates, and closures, with support for straight-through and manual processing workflows.
- 4. Disbursement:** Facilitates account funding and checkout options via APIs, ensuring compliance with guardrails, credit limits, and cross-currency requirements.
- 5. Repayment:** Supports scheduled, pre-, and late payments with notifications for changes or updates in payment schedules.
- 6. Servicing:** Handles arrears, rescheduling, interest changes, deferrals, write-offs, recoveries, and reporting, with notifications for customer updates.





## Way **Ahead**

A key expectation of today's banking customer is services that are seamless, invisible even. Banks can achieve this by embedding their offerings, such as lending, within their customers' primary journeys. Embedded lending offers exciting opportunities spanning customer segments (retail, business, corporate) and industries (real estate, healthcare, travel, education, ecommerce etc.) that new-age financial providers, such as fintech and challenger banks are capitalizing on.

Incumbent banks that have not woken up to the embedded lending opportunity must lose no time in striking partnerships with BaaS providers and brands. Having a modern embedded lending solution with the right architecture will help banks ensure seamless integration to make the most of this opportunity.

**Get in touch with us to learn more.**  
[finacle@edgeverve.com](mailto:finacle@edgeverve.com)

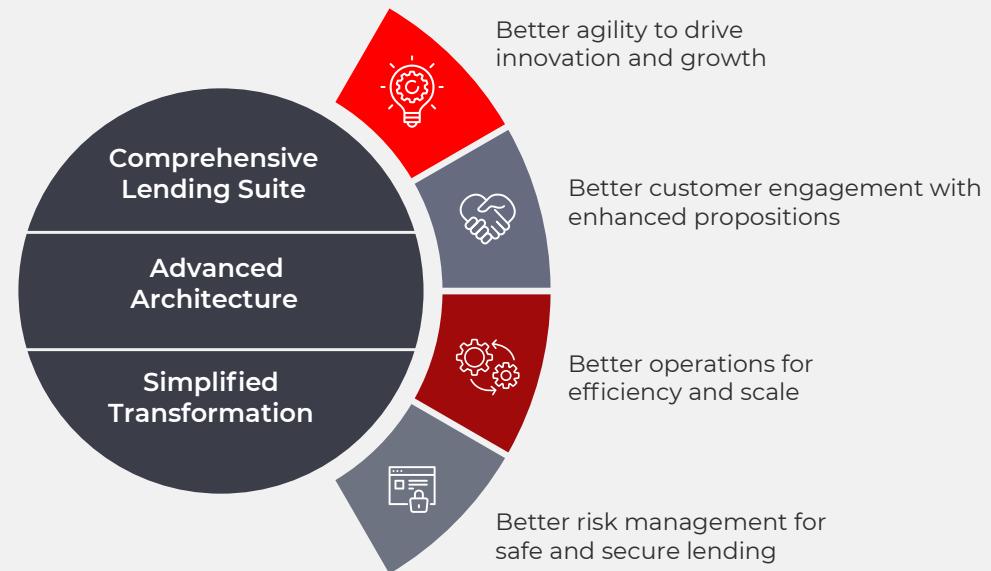
# Finacle Digital Lending Suite

The Finacle Digital Lending Suite is a cloud-native, multi-segment, multi-product solution that is reshaping the lending landscape for banks and financial institutions of all sizes. The comprehensive suite supports the entire loan lifecycle digitally to drive agility in lending, improve risk management, and deliver better operational efficiencies.

Finacle brings rich experience in digital lending transformation having delivered more than **480+ lending deployments** in over 100 countries.

## The Finacle Promise

Empowering your institution's lending evolution



# Finacle Digital Lending Suite: Powering Modern Digital Lending Use Cases

## BNPL

**ICICI Bank PayLater** leverages open banking to introduce instant digital credit to enable customers to make purchases digitally and instantly across 5 million merchants both offline and online



## Digital-only Lending

**Bank BRI Ceria** is the first bank in Indonesia to introduce an end-to-end digital lending product on a smartphone for e-commerce purchases by millennials | Loan initiation to disbursal process takes only a few minutes | Over 7 billion Rupiah in loan volumes in just 45 days of launch



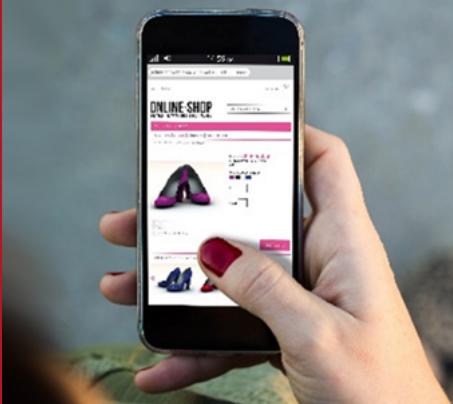
## Co-Lending

**Axis Bank India** is capitalizing the co-lending business model to expand its reach leveraging strengths of non-banking financial companies (NBFCs), and housing finance corporations (HFCs)



## BaaS at Scale

**A Leading North American bank** powers Amazon's small business credit line with Amazon's business financing options extended to eligible sellers with application process 100% digital. Small businesses who sell on the platform can avail revolving credit lines from Amazon, powered by the bank.



## Chatbot Lending

**Kasikorn Line, Thailand**, a joint venture between Kasikorn Bank and Line, launched a range of banking services that are offered via messaging app LINE BK | Acquired 1 million customers in less than 2 months, provided unsecured loans to over 300,000 customers – 30% of whom don't get loans from other FIs



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