Digital lending reimagined

The power of Capabilities as a Service

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The evolution of digital lending

In the first half of this decade, the world of lending underwent a sea change. The pandemic pushed a whole bunch of customers—willingly or otherwise—into the digital era. Especially in India, more and more consumers are not just “digital ready” but also savvy in buying financial products over the Internet.

So, it’s no surprise that online lending has grown 49% year-on-year to ₹1.46 lakh crore. It is expected to account for over 60% of the fintech market by 2030, creating a $1.3 trillion opportunity. Underpinning this dramatic growth are a few market trends.

3-6-3 to 3-1-0

Traditional bankers lived by the 3-6-3 formula: Raise deposits by 3%, lend at 6%, play golf at 3 PM. However, this model no longer works.

Ant Financial, the owners of the world’s largest digital payment platform, summarize this shift in their 3-1-0 system: 3 minutes to decide, 1 minute to transfer the money and 0 human touch. Their success shows that modern lenders need speed, scale and agility to be successful.

Led by people to led by tech

For a zero human touch model to work, lenders need digital-native, omnichannel, modular acquisition platforms that offer an intuitive, instantly gratifying, direct-to-customer (D2C) experience. In a world where interest rates or zero fees aren’t the competitive differentiator, the digital experience a lender offers will matter more than ever before.

From product-centric lending to ecosystem partnerships

Digitally savvy customers no longer seek just instant loans. They expect their lenders to be part of the ecosystem of their travel planning and offer embedded financial services for their current needs. For example, a customer planning an international holiday is happy to pay a premium for end-to-end finance support for their trip, including credit, forex, insurance etc., rather than applying for each of them individually.

To embrace this shift successfully, lenders need to transform from a financial institution selling products and services to a tech-centric, ecosystem partner fulfilling the customer's financial needs end-to-end.

This ebook shows you how.

Adapting to the evolution of digital lending

Though fintech began the race to digital lending, large banks haven't fallen behind. In response to the shifting landscape of digital lending, modern business leaders are working to reimagine their strategies, especially to deliver on an embedded financial partnership model. Below are the levers that will offer the competitive advantage lenders seek.

Example scenario to demonstrate the new digital lending paradigm

Kabir is planning a two-week trip to Europe with his family. Here are some of his financial considerations.

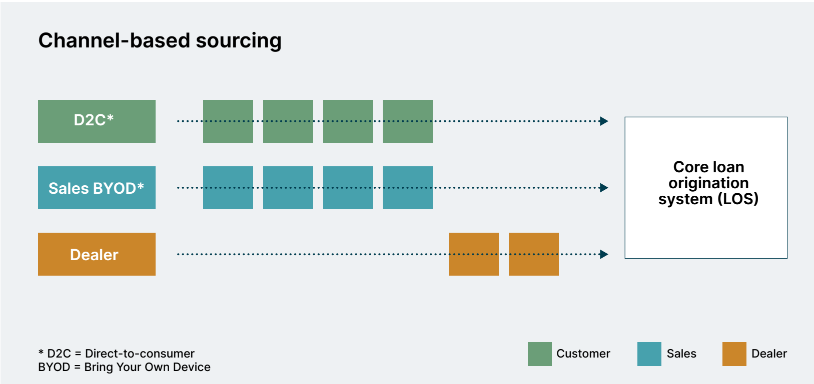
- How much money will I need for the trip?
- Is a prepaid forex card the cheapest way to get foreign currencies?
- If so, how much should I preload it with?
- What options do I have if I exhaust the funds on that card?
- Do I need to take a credit card too?
- What's the best travel insurance for me and my family?
- Should I consider getting a loan to fund the trip?

Traditionally, answers to these questions would come from multiple places, like a travel aggregator for budgeting, forex provider for currency exchange, insurance company for travel insurance, a lender for availing credit, etc.

That's changing.

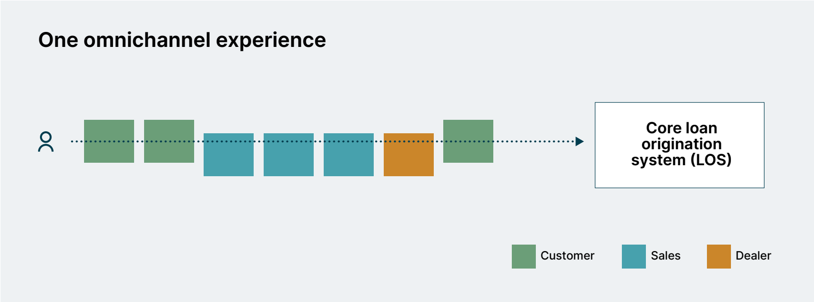
Strategic lever 1:
Omnichannel multi-actor sourcing

Traditionally, lenders used channel-wise sourcing, where loans are obtained through isolated channels such as branches, agents or direct online applications. The technological foundation of that would look like the following.



Traditional isolated channel-based sourcing models

This model is slowly and steadily giving way to omnipresent, omnichannel multi-actor sourcing. The multi-actor model integrates multiple physical and digital channels into a seamless ecosystem of various stakeholders. In addition to the borrowers and lenders, the ecosystem also hosts merchants and aggregators to expand customer reach and understanding. In a way, the lender or bank is an embedded financial partner within the customer's journey, wherever they might be pursuing that.



Integrated and seamless multi-actor channel strategy

Kabir’s omnichannel multi-actor sourcing journey

Trip planners and travel aggregators are pseudo-channels for the lender to understand Kabir’s travel plans and create a personalized offering. In the multi-actor framework, here is how channels can collaborate to fulfill Kabir’s needs.

Data: Travel aggregator will capture Kabir’s demographic profile and share his past transactions as alternative data (with consent).

CX: Lenders expose APIs like submit or initiate disbursement so Kabir can complete the remaining steps at the aggregator’s interface. The data still flows to the lender via API.

Service support: At any point, if Kabir is stuck, an assigned sales rep from the lender logs in to the same (aggregator) application to take the journey forward.

Closing: If Kabir is not satisfied with the offer, he can collaboratively finalize the most suitable offer with the salesperson within the same journey and complete the application.

Strategic lever 2:
Real-time personalization (not pre-defined products)

The primary elements of a lending product from a customer's perspective are:

- Eligibility criteria (income for a salaried customer or yearly revenue for a self-employed one)
- Pricing (rate of interest and any additional fees)
- Type of instrument (term loan, overdraft, credit card etc.)
- Repayment options (EMI tenure and mode of payment)

Traditionally, these were pre-defined as product constructs. For example, a personal loan of a certain amount would require a minimum income, a pre-determined rate of interest and equated monthly installments (EMI) calculations. To capitalize on the evolution of digital lending, lenders need to move from offering such standardized credit solutions.

The alternative? Smart bundling of offerings based on the customer's context, such as their cash flow patterns, spending habits and current needs.

Kabir's experience with his lender's real-time personalization

Today Kabir might receive multiple calls from a lender after expressing interest through bank channels or partner travel aggregators.

Salesperson 1: Hello sir, for your trip, do you need a personal loan? We have the best offer for you.

Salesperson 2: Hello sir, for your trip, do you need a forex card? We offer the best currency rates.

New sales pitch: Hello sir, we understand that you are planning an international trip, please provide us with the trip details, and let us become your end-to-end travel financial partner.

In addition to the already existing demographic segmentation (such as age, income, location and banking relationship), lenders can now leverage real-time, behavior-based, needs-based and psychographic segmentation. Ecosystem partners can help with analytics around spending habits, digital footprints and alternative data (such as social media activity and utility bill payments).

This supercharges the lender's ability to create real-time, relevant and contextual offers based on the feedback from customer actions during the journey. For example, if the customer has already made a decision about a forex card in the journey, the lender would further simplify the customer experience by focusing more on other customer's needs like insurance or credit card and ensure it is still available to be purchased in the end-to-end journey.

As a result, you can go from "what I know" (siloed information) and "what can I offer" (pre-defined products) to "what does the customer need" (real-time personalization and embedded services).

Strategic lever 3: Dynamic risk assessment

Currently, lenders maintain the risk and digital credit rules at the product level within a business rules engine (BRE). This serves as a static source of truth for evaluating loan eligibility and generating offers in digital sourcing.

The new embedded partnership model demands a more powerful real-time risk profiling, leveraging predictive models and dynamic risk ratings, based on alternative data, such as:

- Utility and mobile bill payments
- Social media behavior and digital footprint
- E-commerce transaction history
- Ride-hailing and food delivery spending patterns
- Mobile phone usage and geolocation data

This will be applicable for 'pre-approved offerings' for existing customers as well. Today, every product business maintains an independent pre-approved offer database. For example, a customer might have a pre-approved loan offer of ₹3 lakh, an auto loan offer of ₹5 lakh and so on.

In the new customer-centric approach, pre-approved offerings will evolve into real-time generation of a catalog of products and services tailored to individual customer needs. The lender's promotions will also be more contextual and relevant to the customer based on real-time feedback—as a result, more likely to be bought.

As the primary relationship holder, the bank's understanding of their customer will enable them to bring together ecosystem partners to create a bundled offering while also ensuring that the individual, organizational and overall ecosystem risk is managed with Service Level Agreements/Obligations (SLAs and SLOs).

Kabir's personalized catalog of offerings

Today, Kabir's bank offers instant pre-approved personal and auto loans (which he doesn't need).

A lender who takes the new embedded financial partnership approach will understand Kabir's travel needs and offer a catalog of services combining a personal loan, credit card, and forex card tailored for his trip. What's more? The lender can do this in real time, providing instant fulfillment leveraging Kabir's real-time risk profiling.

Strategic lever 4: User experience

'Ask Me Never' and 'instant gratification' are the key principles driving the user experience evolution in digital lending. Ask Me Never promotes designing user journeys that minimize requests for user input, instead collecting information from alternative sources within the established compliance and privacy frameworks. India Stack, with its various Digital Public Infrastructure capabilities, is driving this shift.

As a result, modern loan application journeys can be WhatsApp chat-based, interactive voice response-based (IVR), conversational experiences utilizing virtual assistants, or a combination of them chosen in real time, based on customer profile and initiation channel.

Kabir's unified financial services experience

In the new embedded financial partnership model, Kabir will have a unified experience for booking his travel, obtaining loans, securing insurance and travel shopping to boot. He might go through the journey through apps, websites, point-of-sale systems, social media, or even messaging platforms, with their journey remaining consistent across channels.

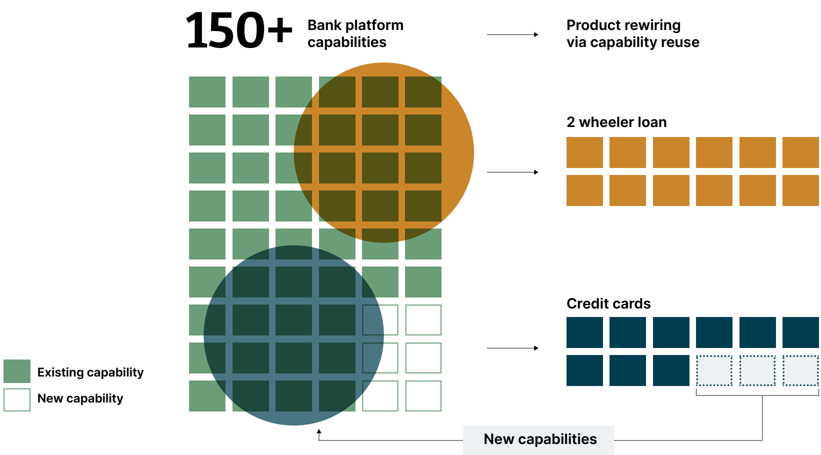
This would be supported by partnerships and aggregator frameworks. Lenders would expose their APIs to enable real-time risk assessment and subsequent disbursement of funds.

Though effortless from the customer's perspective and therefore valuable for the lender, becoming an embedded financial services partner requires a strong technological foundation. Let's see how you can build that.

The digital lending platform of the future

The traditional approach to building digital lending platforms was centered around products. A loan, insurance, credit card etc., were the building blocks of this approach. Soon, banks and lenders realized that this approach was limiting, especially in delivering adaptable, real-time customer experiences.

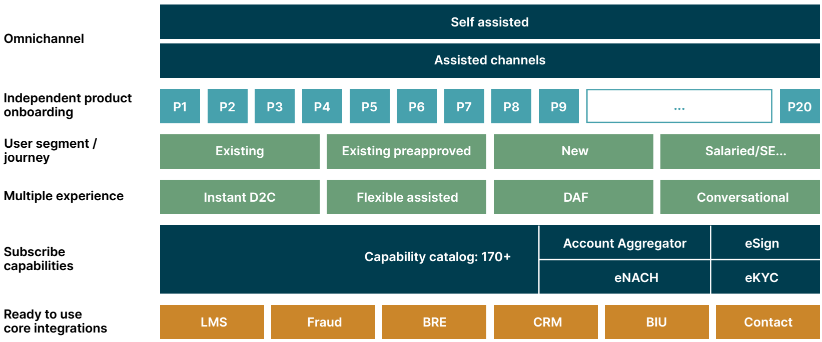
This gave way to the approach most popular today, i.e., building extensible digital capabilities rather than products. A new product or a product variant can be launched at a significantly faster pace by rewiring these extensible capabilities, as illustrated below.



Composable platform model

To enable this platform, lenders typically segment their user journeys based on a three-dimensional model at each product level — channel, product and customer segment. For example, a personal loan onboarding on such a platform will have separate user journeys for existing and new customers, direct-to-consumer (D2C) and assisted channels. This, however, can result in inadvertently creating multiple journeys and a heavy core.

The platform approach unifies the origination experience into one layer with multiple journey orchestrations leveraging a common catalog of capabilities. However, that can exponentially increase complexity, creating hundreds of user journeys across lending products.



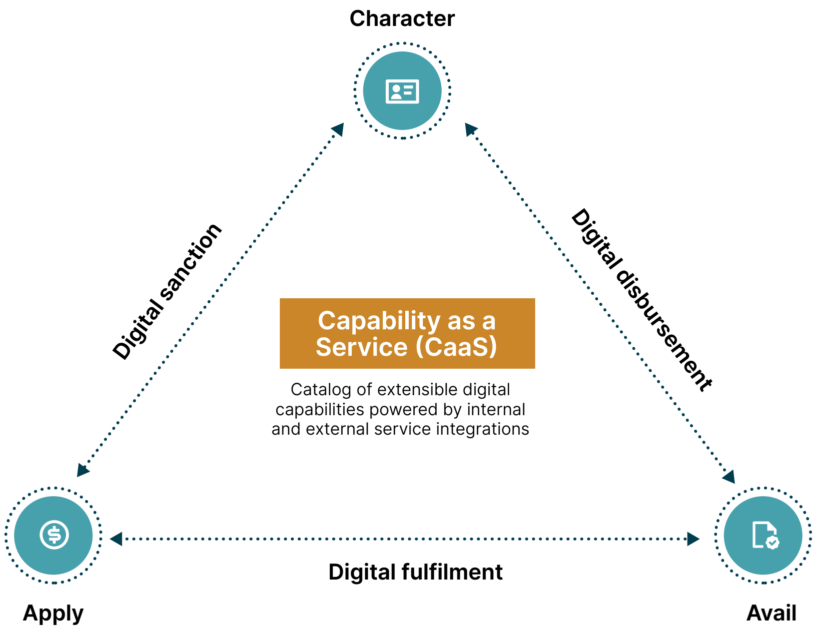
Digital lending platform with capabilities powering multiple product and user journeys

To address these challenges, lenders should shift from product-level journey designs to more centralized, flexible, horizontal modules that serve as a catalog of capabilities.

Moreover, one complex core supporting multiple products creates a large blast radius in case of any failure in the core. This architecture not only simplifies the user experience but also leverages common digital capabilities across different modules, ultimately reducing redundancy and accelerating deployment.

Capabilities-as-a-service model for digital lending platforms

As an extension to the current platform approach, we propose the capabilities-as-a-service (CaaS) model. In this model, CaaS serves as the digital engine powering the platform with digital capabilities for fetching data, data validation and verification, executing specific tasks like mandate setup and more. The CaaS model is structured around three horizontal modules powered by a central catalog of capabilities.



CaaS model for digital lending platforms

Character as a Service

An independent engagement layer supporting multiple user experiences for sales and customers to generate demographic, employment and income profiles. Character will be an independent module agnostic of any product.

Capabilities within the Character module			
Initiation and authentication	Customer employment profiling	Customer alternate data	Customer needs
Customer demographic profiling	Customer income profiling	eKYC / video KYC	

Integrations from ecosystem players power this module. For starters, India Stack's capabilities, such as Aadhaar KYC, Central Registry of Securitisation Asset Reconstruction and Security Interest of India (CERSAI) CKYC, NSDL PAN verification, etc. are powerful.

Similarly, there are also fintechs who can perform instant income calculation via bank statement, employment verification via EPFO or TDS etc., creating a holistic profile of the customer without manual input from them.

Apply

Once the platform understands the customer profile, eligibility and needs via the Character module, Apply will run risk checks and generate personalized offers.

Unlike Character, Avail and other shared capabilities, the Apply module will not have a separate journey for each product. Instead, it will curate a real-time journey considering the customer's need and character to create a personalized catalog of offerings.

All the product logic, such as risk assessment and pricing, will lie with the Apply module, limiting the number of product variations to this level.

Capabilities in the Apply module			
Asset/collateral	Risk assessment	Offer and pricing	Insurance and cross-sell

Avail as a Service

Once a customer is happy with the offer, the platform will call an independent Avail module, an engagement layer, to acknowledge the offer, set up repayments and digital agreement. Similar to Apply, Avail will give an instant, paperless and unified experience in one go.

Capabilities in the Avail module				
Payments	Disbursement	Fulfilment	Account setup	Agreement

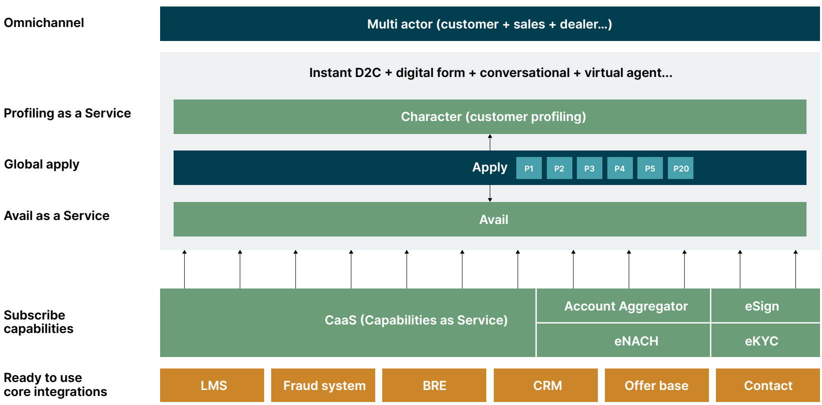
Here, too, ecosystem partners and services can strengthen the journey. India Stack's capabilities, such as the National Payments Corporation of India (NPCI)'s eNACH, Aadhaar-based e-Sign, UPI for payments etc., in combination with fintech services for end-to-end digital agreement, accelerate the process and enable better lending decisions.

Shared capabilities

Supporting these three modules will result in shared capabilities that provide an end-to-end digital lending experience on the platform.

Shared capabilities		
Communication	Nudge	Document management
Business observability	Lead management	

Capabilities as a Service in action

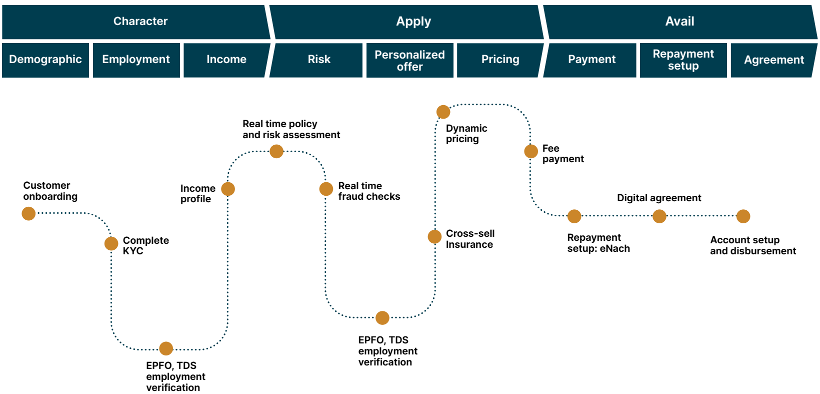


Digital lending platform with CaaS-powered customer onboarding

Any lending or credit product origination journey can be designed with these three modules as a base powered by a central extensible catalog of digital capabilities. This modular customer-centric approach to designing platforms will enable lenders and banks to unify their acquisition experience across business verticals and not just lending.

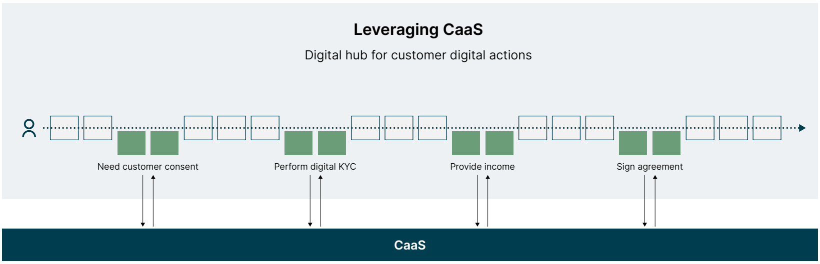
In our experience working with one of India's largest private banks, we partnered with the bank to build 150+ extensible capabilities, enabling them to launch 20+ products on the same platform at a much faster pace. This spans retail loans, credit cards, forex cards, merchant and rural lending. Later, we externalized these capabilities as a service to other platforms of the bank as well, resulting in bank wide standardization and easy maintenance.

A typical customer acquisition journey leveraging these modules will look like the illustration below.



Typical customer acquisition journey with the CaaS model

Tech owners can extend these capabilities beyond their platform to be used by any application of the financial institution. For example, a physical onboarding process in the bank's branch systems can leverage CaaS capabilities to speed up the process and make it efficient using digital capabilities.



CaaS embedded business processes

Kabir's travel experience with the future of digital lending

In the future of digital lending, Kabir will simply input his trip plan and the onboarding platform will:

- Generate his real-time profile and eligibility using the Character module
- Create personalized offerings, such as a combination of a personal loan, a forex card and a credit card with the Apply module
- Fulfill Kabir's application for all products simultaneously using Avail
- Nudge Kabir during the trip if his forex card balance goes below or if he requires a top-up

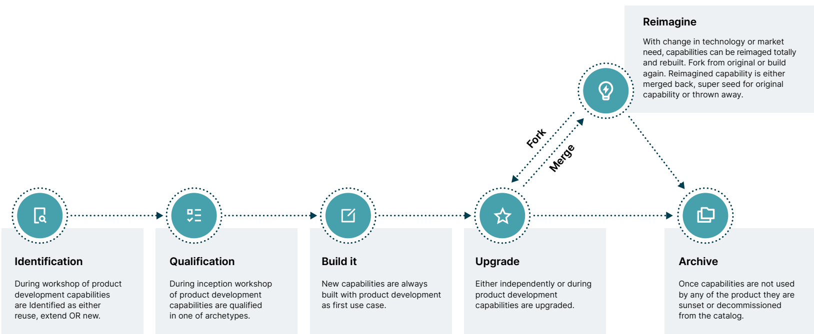
This way, the lender will become a financial partner to Kabir till the end of his trip and beyond. This will enable lenders to become a part of the ecosystem early and in context.

Creating the organizational structure for reimagining digital lending platforms

When an organization goes from thinking in terms of product constructs to dynamic offerings that are automatically curated by the platform, things can feel a bit out of control. Adapting to this requires some tweaks to the organizational mindset and team structure as well.

Governance for CaaS

To retain the extensibility of core capabilities, tech teams need to set strong governance guardrails around their identification and maintenance. A typical lifecycle of a capability needs provision to customize or upgrade as per consumer's requirements.



** Above lifecycle is one most probable journey. Stages are important and should not change. However, execution can also happen during product CD phase.*

A typical lifecycle of a CaaS model

Teams for building CaaS

The CaaS approach to digital lending platforms will generate maximum value if the teams are also aligned with the same mindset. Below is our recommended team structure for a digital lending platform focusing on business agility and standardization.

Product team

Business and engineering team together create, define and deliver, measurable business outcomes. Each product team can act as a satellite team stitching new capabilities to their products.

Capability dev teams

Core engineering team building capabilities that help deliver products with quick time to market. Engineering team includes design, data, infra, testing and dev skill sets.

Higher order infra team

Helps building reusable infrastructure as code, which allows application development pods infra and dev tools capabilities on demand.

Governance teams

Team helps build product with consistently across business of banks and helps leverage capabilities across bank. Also helps maintain standards.

Team structure for a CaaS model

Lending platform but better

Banks, financial institutions and lenders are already moving towards a modular and composable platform model for their lending. While this shift has created substantial value for financial institutions, it also opened them up to several challenges. With the evolution of digital lending, a new, flexible approach away from a rigid, product-centric mindset is essential.

The Capabilities as a Service (CaaS) model presented above offers a dynamic, customer-centric alternative. This approach to platform development enables lenders to become tech-driven financial partners to their customers.

By integrating omnichannel engagement, real-time customer profiling, instant risk assessment and modular capabilities as a service, the CaaS lending platform will seamlessly address diverse customer requirements throughout their financial journey. Ultimately, this shift paves the way for financial institutions to transform into trusted, embedded partners that drive enduring value well beyond the initial transaction.

About the author

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Swapnil is a principal consultant specializing in financial enterprises. He brings over 13 years of experience in digital banking, product management, business transformation and large-scale program delivery for global lenders, banks and other financial institutions. He takes a special interest in helping traditional lenders transform into digital lending powerhouses by optimizing people, processes and technology.

Swapnil's approach to solving complex business challenges focuses on bringing together customer insights, product thinking and technological innovation to deliver scalable, high-impact solutions, enabling organizations to achieve enterprise-fintech agility.

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