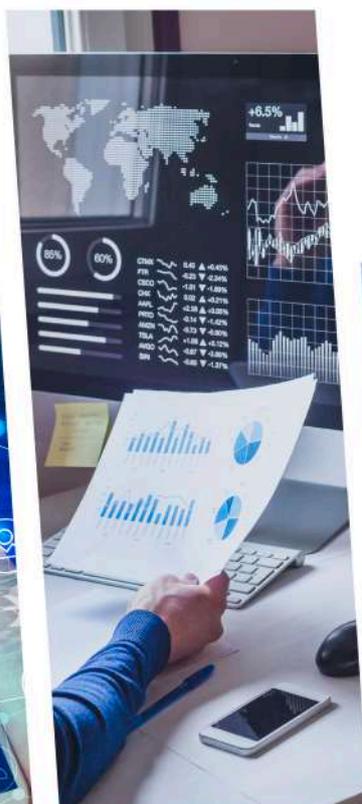


# IaaS: New-Age Payments Solutions through Card Issuing-as-a-Service

September 2022



# Abstract

Issuing-as-a-service (IaaS) forms the next step in the evolution of the Banking-as-a-Service (BaaS) model, allowing modern businesses to adopt innovative, personalised and customer-friendly solutions for their card issuance needs. This paper explores the IaaS landscape in India. IaaS today is powering innovation in the fintech industry, transforming traditional banking, enabling customer and employee management for enterprises, aiding with financial inclusion, to name a few. Issuers today include a range of players like banks, NBFCs and even non-banks, and cards issued include debit, credit and prepaid cards with varying business models and arrangements. Commencing with the technology underlying IaaS, the paper dives into the different forms of card APIs and the functions they enable- like creating, loading or blocking a card. It goes on to introduce the various players involved in IaaS issuance, from card networks to BIN providers to card switches, and the role of an IaaS platform in easing these integrations for businesses. Next it outlines the specific benefits of IaaS for specific industries, such as e-commerce players, marketplaces, fintech companies, large corporates, the logistics industry, or the gig economy. It then dives into the regulatory landscape, looking at the latest RBI regulations on issuance of debit and credit cards, the recently revamped prepaid card norms, and the multiple other compliance obligations that come into play. It ends with a proposal for a new regulatory model for BaaS players, one which allows a regulated approach for bank-fintech partnerships and API driven innovation, while simplifying compliance for other players and reducing risk in the system.

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# Foreword



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Digitisation and technology driven innovations have been creating the opportunity to transform customer experience in the banking industry. This has, further, led to significant increase in expectations of customers that require curated offerings to deliver a differentiated and innovative experience. Issuing-as-a-Service (IaaS) is an evolving solution to meet the need of providing customised/flexible customer experiences along with a quick go-to-market strategy. From creating easy on-boarding systems to user-friendly interfaces, customer-centricity is at the core of the value proposition of IaaS models.

New age API based models are allowing businesses to use technology-driven solutions to address inefficiencies of the traditional banking system, and seamlessly provide card issuing and payments experiences for customers. APIs allow these businesses to embed issuing solutions into their applications, allowing an enhanced customer experience through integrated card application, issuance and management for the customers from a single touch-point.

The APIs also allow a high level of customisation of product offerings as per the needs of each customer, such as making/accepting payments, making specific authorised purchases, providing physical/virtual cards or debit/credit/prepaid cards, enabling cash withdrawals, allowing international payments, using data and analytics for credit decisions, etc. Issuing-as-a-service can help businesses solve specific problem areas for them, like collections and disbursements, customer engagement, monetisation, expense tracking, add new distribution and on-boarding channels, etc. These bells and whistles allow them to meet the issuance needs of niche customer segments and use-cases, like SMEs, millennials, education, travel, corporate expenses, farmers, etc.

This model is based on the fintech providing technological and infrastructural requirements aligned with regulatory requirements. Recent regulations on card issuance and co-branding released by Reserve Bank of India (RBI) is an example of this. Several customer safeguards, esp, norms on tokenisation and card storage restrictions, requirement to adhere to outsourcing norms and the fair practices code detailed out as part of the recent regulations also add to the safety net for the users.

Given their nascent stage, it will be interesting to watch agile API solution players carry forward the Digital India wave using their unique value proposition.

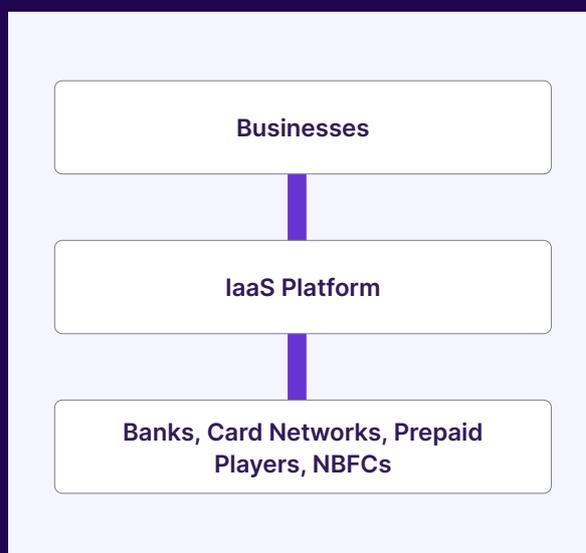
## Chapter I

# Introduction: The promise of Issuing-as-a-Service

## 1.1 What is 'BaaS' and 'IaaS'?

Modern businesses are targeting increasingly personalised, customer-oriented services to offer a differentiated and innovative experience. Banking-as-a-service (BaaS) makes adding financial services for these a simple matter of integrating with the APIs released by banks and other regulated players. BaaS intermediary platforms are further simplifying things by aggregating such APIs across multiple players.

Through these, businesses gain a quick-to-market product in even as little as one-two weeks, while being freed from regulatory licensing and compliance constraints, which are covered by the regulated partners and the BaaS intermediary platforms in the middle. The regulated players on their part gain through the multiple new revenue streams and customer segments the approach enables.



Issuing-as-a-service (IaaS) brings this same BaaS benefit to the issuance of cards, allowing businesses to reinvent the uses cards are put to. Card payments remain a popular form of payment for customers, with the RBI reporting growth in issuance and transactions for credit cards, debit cards and PPIs (which includes prepaid cards).

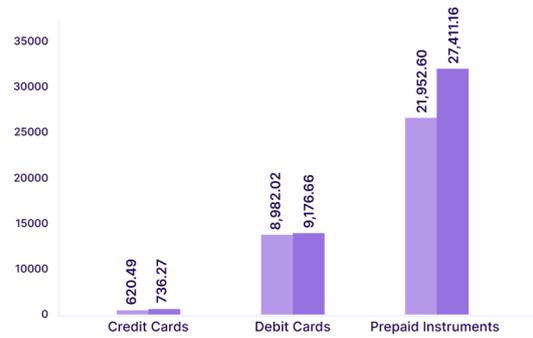
# Growth in Card and PPI issuance and transactions in 2021-2022



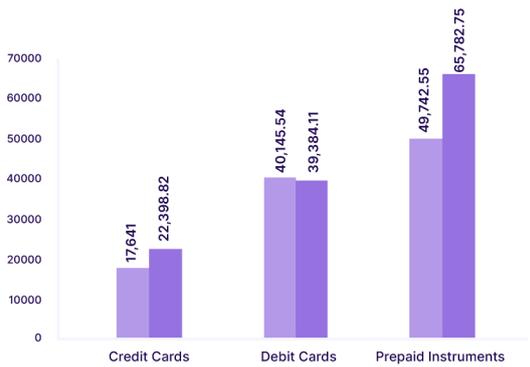
Source: RBI Data

## The Cards Issuance & Payments Landscape in India

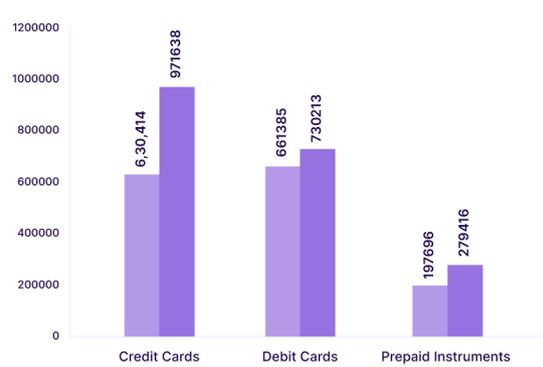
Legend: 2021 (Light Purple), 2022 (Dark Purple)



Total in Circulation (Lakhs)



Volume (Lakhs)



Value (Crore)

Source: RBI & NPCI Data

## 1.2 IaaS enabled Card Issuance

If traditional cards issuance was through customers approaching banks or prepaid payment instrument (PPI) issuers for

debit/ credit/ prepaid cards, IaaS allows entities ranging from corporates, neobanks, universities, aggregators, marketplaces to neobanks to issue customised cards to their employees, students, customers, and so on.

<p><b>Traditional Card Issuance</b></p>	<ul style="list-style-type: none"> <li>● Banks issuing credit/ debit cards to customers</li> </ul>	<ul style="list-style-type: none"> <li>● PPI issuers issuing prepaid cards to customers</li> </ul>
<p><b>IaaS enabled Card Issuance</b></p>	<ul style="list-style-type: none"> <li>● Corporates issuing expense &amp; payroll cards to employees</li> <li>● Lenders disbursing loans to cards</li> <li>● Airlines, neobanks, online cos. issuing co-branded cards for loyalty</li> <li>● E-commerce companies enabling BNPL via loan-backed cards</li> </ul>	<ul style="list-style-type: none"> <li>● E-Commerce companies offering Refund/ Gifting cards</li> <li>● Businesses issuing open loop, non-reloadable gift cards</li> <li>● Universities issuing campus cards for student expenses</li> <li>● Families issuing monitored student/ pocket money cards</li> </ul>

Businesses can choose from multiple options based on what suits their needs. For example, for corporate expense cards for employees such as travel, meals, authorised expenses, etc., the preference may be for credit cards or reloadable prepaid cards, while for gifting, this could be non-reloadable prepaid ones.

Co-branding is another option for businesses seeking additional personalization and customer loyalty. While co-branded credit cards from airlines are a typical use-case, today e-commerce marketplaces, neobanks, tourism companies and even petroleum companies are opting for these. For tourism companies, the ability to make cross-border payments and easy reloadability are priorities.

## Types of Cards via IaaS

 <b>Categories</b>	Physical/ Virtual	Issuer branded/ Co-branded	Debit/ Credit / Prepaid
	Reloadable/ Non-reloadable	Visa/ Mastercard/ RuPay/ Amex/ Diner	
 <b>Purpose</b>	Loan disbursement	Corporate Expenses Tourism	Remittance/ MTSS
	BNPL	General Purpose Reloadable	Reimbursement/Refunds
	Students/ Campus	Salary disbursement	Discounts/ Cashbacks
 <b>Facilities</b>	PoS payments	Online payments	Bill payments
	ATM cash withdrawal		Cross-border payments

### 1.3 Issuing APIs and IaaS platforms

The actual issuance of the cards is of course through regulated partners, which may be banks, NBFCs or PPI players, known as the 'issuers'. The specific types of cards a partner issuer issues can depend on the governing regulations (payment banks for example cannot issue credit cards, while PPI license holders can only issue prepaid cards).

The range of functions enabled however, such as the ability to topup a prepaid card

or set spending controls, usually depend on the APIs offered by the specific partner issuer. Basically, the API integration creates an IaaS touch-point for the customer with the business, such as on the business's app. Apart from basic APIs to issue the card, each additional API offered by the issuer enables new facilities and conveniences for customers directly through this touch-point, such as the ability to block a lost card, reset a PIN or check card limits. Issuers and other involved players today offer a range of APIs, allowing customisation and innovation.

## Functions Issuing APIs Enable

 <b>Issuance</b>	Issue Cards		New application
	Add card to wallet		Issue gift cards
 <b>Payments &amp; Management</b>	Make payments	Top Up prepaid card	Just-in-time funding
	Set spending controls	Real-time authorisation	Block/ Unblock cards
	Refunds & disputes	Update details	Reset PIN
	Enable/ disable payments	Replace/ Upgrade Card	Apply for add-on card
 <b>Information</b>	Card Limit & Account Balance check		Credit card statement
	List all Cards		Card Status Info

The laaS platforms of course, play the role here of aggregating these APIs across multiple players, allowing businesses the convenience of integrating one-time, directly with the laaS platforms instead of multiple integrations with different partner issuers.

The low-code and no-code flows these offer allow plug-n-play integrations, reducing normal integration times of over 3 months to less than two weeks. Instead of multiple individual partnerships, contracts, pricing and PoCs, businesses deal with uniform contracts, pre-negotiated lower costs, and a single

PoC. Moreover, they gain the ability to switch easily between partners, bringing flexibility and agility to their business models and easy scaling.

The key challenge of regulatory compliance, which ranges from factors like tokenisation, restrictions on storing card data, mandatory interoperability, security compliances like PCI, and so on, are also covered by the partner issuers and the laaS platforms, freeing businesses to focus on the product and their customers.

## The IaaS Benefit for Businesses

01

Custom branding via co-branded cards

02

Easy issue of debit, credit or prepaid cards

03

Physical or virtual cards

04

Enable just-in-time funding & card controls

05

White-labelling for quick-to-market products & scaling

06

License-free & compliance coverage

07

Generate new revenue streams

08

Monitor spending & get real-time data insights

## Chapter II

# An overview of the Indian BaaS Landscape

APIs (Application Programming Interfaces) provided by banks and various other regulated entities lie at the heart of BaaS today. The first APIs laid the groundwork for BaaS today, bringing early digitisation and automation to banking, such as allowing integration with the cloud for the first time. These eventually evolved to partner APIs allowing specific partners to collaborate, and then to public

APIs, allowing any third party like fintechs to tap into these to innovate. Public APIs take an 'open' technology like approach, allowing third parties to 'embed' traditional banking products and services like account opening, card issuance, payments, lending and so on, and become distributors for the banks.

### Evolution of Banking APIs in India



#### Private APIs

internal digitisation and efficiency



#### Partner APIs

collaboration with strategic partners



#### Public APIs

open collaboration with third parties

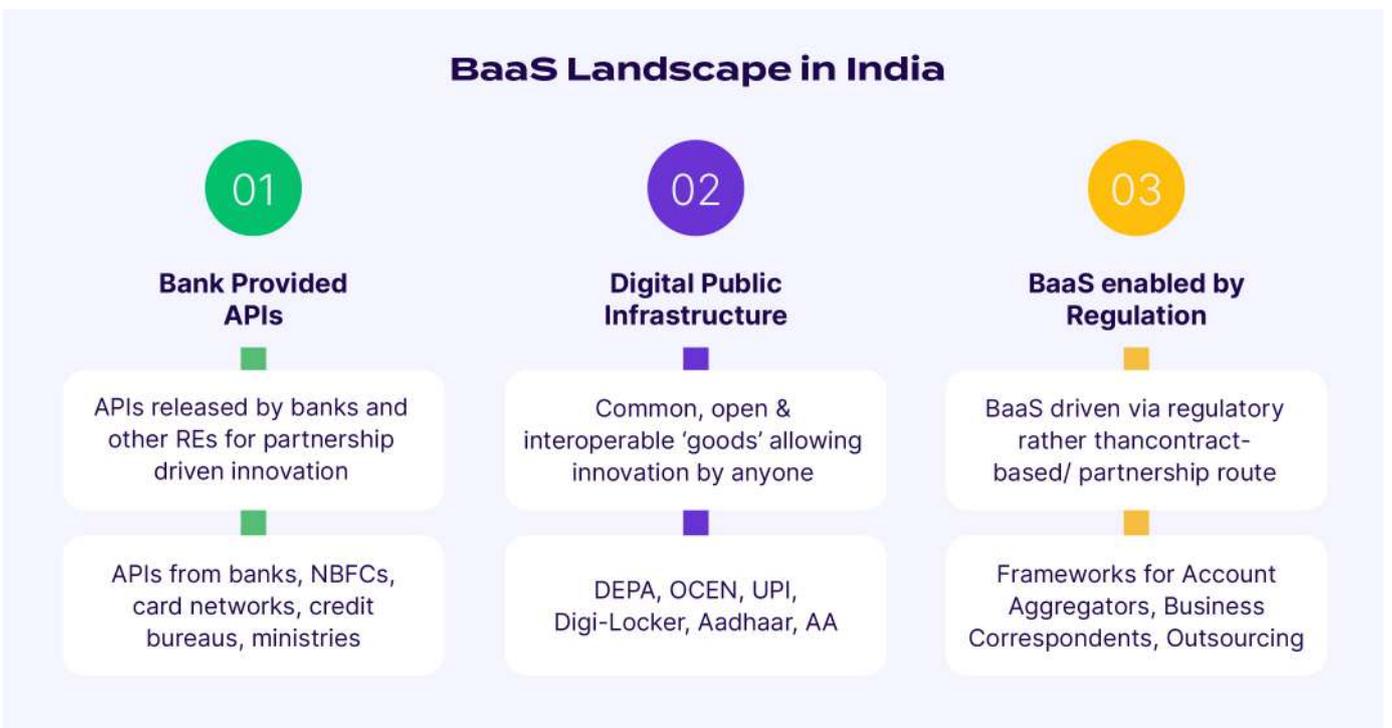
India's BaaS landscape comprises first of private, contract driven BaaS, through APIs released by banks and other regulated entities (REs). A number of players, from banks, NBFCs, card networks, credit bureaus,

ministries (Meity, MCA) have released crucial APIs. These allow the open and real-time data exchange underlying BaaS, enabling banking and payments services, identity verification, credit checks, etc. through them.



Second comes digital public infrastructure taking the form of common, open and interoperable protocols, which can be utilised by any innovator to build their products. Aadhaar for example enabled digital identity across the country, allowing remote and digitised identity verification. UPI allows any business to become a 'third-party app provider' and a player in the payments space.

The 'Data Empowerment and Protection Architecture' promises to empower the people with control over their data, enabling consent-based data sharing and access across businesses and sectors. This has initially been implemented via the Account Aggregator ('AA') framework, which enables open data access and portability within the financial sector.



Third comes regulatory-driven BaaS, enabled by individual regulatory frameworks that support BaaS in various forms. First is the AA framework itself, which allows the sharing between entities regulated by regulators of the financial sector for banking, securities, insurance and pensions, i.e., the RBI, SEBI, IRDA and PFRDA. RBI frameworks for outsourcing enables BaaS such as via digital lending applications. While the business correspondent model formed the earliest form of BaaS allowing banking to be delivered even

to remote corners via NGOs, postmen, kirana shops, etc., engaged as bank agents, today this model is leveraged to provide the same services digitally, via neobanking and other such digital models.

Apart from specific regulations enabling specific models, there are of course multiple other regulations that play their own role in supporting or otherwise governing various BaaS relationships.

## Snapshot of supportive BaaS regulations & innovation in India

### Small bank licenses:

Light-weight banking licenses



### Payments interoperability:

For PPIs, QR codes, UPI mapper, etc.

### Business Correspondent norms:

Enabling neobanks, DLAs, etc,

### Outsourcing norms:

Enabling DLAs, engaging agents, etc.



### DEPA:

Cross-sectoral data sharing

### Digital Payment Security Controls:

Strengthening bank APIs



### OCEN:

Embedded lending anywhere

### Digitising KYC:

V-KYC, C-KYC, Digi Locker, etc.



### Account Aggregator:

Open financial data sharing

### Aadhaar & eKYC:

Digital identity for all

### PPIs:

Equivalent to a bank account

### UPI:

Payments-as-a-service



Utilising these models and regulations, innovators of course provide a range of BaaS services in India.

## Forms of BaaS

 <b>Payments-as-a-service</b>	Integrate payments services like bank funds transfers, disbursements, collections, card issuing, cross-border payments
 <b>Issuing-as-a-service</b>	Integrate and launch card services like issuing credit, debit, prepaid cards to customers, employees, contractors
 <b>Embedded Finance</b>	Allows traditionally non-financial entities to offer financial products and services on their own platforms
 <b>Account Aggregation</b>	Aggregate and manage multiple customer accounts from a single platform
 <b>Lending-as-a-service</b>	'Marketplace lending' allowing businesses, retailers, fintechs to offer lending services from lending REs to customers
 <b>Digital 'banks'</b>	Banks and other consumer finance companies offering digital-only banking services to customers

## Chapter III

# What is the technology underlying IaaS for cards?

### 3.1 Parties involved in Card issuance

There are multiple parties involved in the card issuance process. Issuance as a Service enables bundling of all of these functions and entities to provide a seamless and fast integration and go-live for a platform or business looking to issue cards to their customer or employee base. The IaaS tech

stack enables businesses to issue cards, while the IaaS provider manages all the key processes of certifications, refund and chargebacks, AML, etc. with the various players in the card issuance value chain.

Before we delve into the API stack provided by IaaS platforms, outlined below are the entities enabling card issuance:

- 01 BIN sponsor:**  
BIN sponsors are usually banks but can be other financial institutions who have a membership with card networks (Visa, MasterCard, Rupay etc) for issuing a Bank Identification Number (BIN) and who can provide these BINs through a sponsorship model to entities who do not have a membership with the card networks.
- 02 Processor/Switch:**  
The Issuer processor is the entity that is responsible for authorising transactions on behalf of the card issuing entity, providing the system on record and maintenance of cardholder data and the communication with all the settlement parties. The issuing processor is also responsible for the issuance of the card.
- 03 Card Program Manager:**  
The card program manager is typically the entity responsible for all the coordination between the processor, card network and issuer to set up and launch a card program, set up the pool account and enable the business to start issuing cards.

04

**Issuing entity (bank/non-bank):**

The issuing entity is the license holder under whose license each card is issued. In case of credit cards, it has largely been banks, although recent guidelines enable NBFCs who meet certain criteria, to apply for credit card licenses. In case of prepaid cards, the issuing entity is any organization that has a PPI license (bank/non-bank PPI)

05

**Card Network:**

The primary card network providers available for Issuance as a Service in India are Rupay, Visa and Master Card. The card networks are generally responsible for setting the interchange rates and enable the communication and authorisation between the issuer and acquirer.

### 3.2 The IaaS option for businesses for enabling card issuance

While evaluating card issuance for their customers, a business can choose to partner with a processor/ switch and manage all the

other partnerships on their own, or they can choose to integrate with an IaaS provider and get the end-to-end offering through their stack.

The table below outlines the key features provided by IaaS vs processor only:

Details	Processor only	IaaS (program manager + processor)
Processing each transaction on behalf of issuer & sending communication/messages	✓	✓
Setting limits & control for the card program (eg: MCC based limits)	✓	✓
Providing the dashboard to the business for issuing and managing the cards	X	✓
Certifications required with card network	✓	✓
Bank relationship management, MIS, network & BIN approvals etc	X	✓
Creating/updating PINs	X	✓
Enabling cashbacks and other custom logic	X	✓

In Card-issuance-as-a-Service, the IaaS provider handles the entire end-to-end coordination among the various entities and provides a managed card program to the business or platform that is looking to issue cards - this enables the business or platform to initiate the issuance and manage the lifecycle through a dashboard or through plug-n-play APIs.

Here are the key APIs provided by the card program manager to the business or platform that is looking to issue co-branded or mono-branded cards. Many of these functionalities are also provided by the card program manager through a dashboard, for faster and easier go-to-market implementation for businesses.

Card Program APIs	
<b>Create Program API</b>	<p>This API enables creation of a new card program, and takes as inputs the details around the program to be created which includes (but is not limited to) issuer bank, card network, rules and limits applicable to the card program.</p> <p>All the cards issued under a card program inherit all the features defined by the create program API</p>
<b>Create Sub Program API</b>	<p>Some IaaS providers also give the option to create sub programs within a card program to provide more flexibility to the business. A few instances of rules assigned at sub program level through APIs are:</p> <ol style="list-style-type: none"> <li>1. Enabling Just-in-Time funding</li> <li>2. Enabling closed loop or open loop payments</li> <li>3. Assigning different MCC based limitations</li> </ol>
<b>Get Consolidated statement of account API</b>	<p>This API enables the business to fetch details around all the cards issued under their program. In accordance with the recent RBI guidelines, businesses who are marketing partners cannot access any transaction level data of the customer - hence this API can only provide details on the cards issued and not transaction level data of each card</p>

## Customer & Card Creation APIs

<b>Create Customer API</b>	The create customer API enables creation of a customer with basic details such as full name, mobile number, name on card, address etc
<b>Create Card API</b>	The create card API initiates a request for creation of a new card. One of the key inputs provided here is card type: whether the card to be issued is a Virtual only card or a Physical + Virtual Card. Some IaaS platforms enable issuance of add-on credit cards with the same credit limit as the primary card.
<b>KYC APIs</b>	<p>The KYC process for cards vary depending on type of card (credit/prepaid) and also according to the issuing entity. For prepaid cards, there are two key APIs</p> <ol style="list-style-type: none"><li>1. Min KYC APIs which enable collection of minimum KYC details (Aadhar, PAN, OTP) and create a card instantly with INR 10,000 limit</li><li>2. Full KYC APIs, depending on the type of KYC, take the KYC details required for conducting full KYC and provide the status of the full KYC</li></ol>

## Card Operations APIs

<b>Activate/Block/ Replace Card</b>	<p>These set of APIs enable activation of card once the KYC is approved by the issuer, and also enable blocking of cards in case of card loss or if the card user no longer requires the service (example: in case of expense management use cases, cards can be blocked/deactivated once employee leaves the organisation)</p> <p>The replace card API initiates the request to issue a new card in case of card loss/theft etc</p>
<b>Load Funds to Card APIs</b>	This set of APIs enables assigning of limit on each card. In case of credit cards or prepaid with Just-in-Time functionality (such as in expense management) - a virtual limit is set on the card. In case of regular prepaid use cases, the API actually loads the money into the virtual account/prepaid wallet attached to the card.
<b>Login &amp; Authentication APIs &amp; SDK for card holder</b>	The cardholder can get access to card number, CVV, expiry, PIN reset and transaction statement etc through this set of APIs/SDK wherein the data is only accessible to the card holder and not the business issuing the co-branded card

## Chapter IV

# What is the value proposition of IaaS for businesses?

### 4.1 Key benefits of card issuance for businesses

As businesses look to embed payments & finance into their customer journey, cards are

increasingly becoming a bonafide instrument to support many emerging business models, and to empower traditional businesses to go completely paperless, especially since the pandemic.

#### Key benefits of card issuance for businesses

Support  
Innovative  
Business  
Models through  
customisation  
& controls

Card programs provide various levels of customisation that help businesses launch with niche and innovative business models. An example of this is a hybrid campus card that can be used both as a closed loop card (for in-campus uses) and open loop card (for online uses) and also doubles up as an Identity card. Card programs also enable setting of rules and limits - have MCC based rules, sub-wallets to segregate and control spends - all of these make cards powerful tools for new business models around expenses & accounting, credit access & spends, parent-child and family spend use cases etc.

<p><b>Fuel Financial Inclusion</b></p>	<p>For businesses and entities whose target customer segment is the underbanked population, cards enable seamless cash withdrawal, online transactions, utility payments, POS transactions etc which this customer base might not be availing through their existing savings bank accounts. Payroll cards for blue-collar is a major use case that highlights these benefits.</p> <p>For SME, MSME focussed fintechs, co-branded credit card partnership with banks (and going forward with NBFCs), enable the fintechs to leverage the credit availability of banks and their own customer acquisition channels to provide credit to entrepreneurs and proprietors in the underserved SME/MSME space</p>
<p><b>Enable paperless &amp; remote during &amp; post pandemic</b></p>	<p>In addition to customer-focussed use cases, card issuance also have employee, partner and agent focussed use cases for businesses. Card issuance has accelerated the journey of many businesses in going completely digital in terms of expense management, incentive payout, blue-collar employee payroll, and many other use cases.</p>
<p><b>Provide a more secure way to transact</b></p>	<p>Due to PCI DSS compliance and a high level of data security requirements, cards are generally a much safer and secure way to transact, vs cheque, cash and other modes used in many of the use cases cards are replacing. Additionally, the regulatory requirement that card holder transaction data be only available to the card holder and not the marketing intermediary, also makes it a trusted instrument for the end users actually accessing the card for payments, while building a sustainable revenue stream for the marketing intermediary (business) through interchange share of the MDR.</p> <p>Setting up and launching a card management program for issuing any type of card (prepaid/credit/debit) requires an extensive set of processes, compliance, certification and dedicated teams. Hence, in the traditional set up, setting up one's own card program can take several months or even a year, since the certifications, approvals are time-consuming and the multiple integrations and agreements with the various entities involved in card issuance, makes it a cumbersome process.</p>

## Key processes required to set up a card program

Setting up the card program	<ul style="list-style-type: none"><li>✓ Partnering with a BIN sponsor, processor, card network, &amp; Issuer entity and getting necessary approvals</li><li>✓ Setting up pool account and enabling virtual account set up on the pool account</li><li>✓ Setting up the parameters &amp; limits/controls for the card program</li><li>✓ Building &amp; bundling the Card Issuance &amp; Management APIs &amp; dashboard (eg: KYC APIs, create card API, block card API, assign limit API etc)</li><li>✓ Ensuring compliance with PCI &amp; other regulatory requirements</li></ul>
Customer onboarding & card issuance	<ul style="list-style-type: none"><li>✓ Onboard certified card design &amp; printing entity</li><li>✓ Get necessary card design approvals from the card network, Issuer etc</li><li>✓ Manage card inventory &amp; delivery operations</li><li>✓ Work with the relevant licensed/certified entities for enabling KYC (eg: licensed entities that offer cKYC, banking correspondents for biometric KYC)</li><li>✓ Manage data privacy requirements around KYC</li></ul>
Customer support	<ul style="list-style-type: none"><li>✓ Support for chargeback, dispute and other challenges</li><li>✓ Provide technical support for any issues in usage of the cards and in the card program</li><li>✓ Provide SLAs for issue resolution</li><li>✓ Have SLA arrangement with issuer, card network, processor on issue reconciliation, issue resolution, response time etc</li></ul>
AML, risk & fraud management	<ul style="list-style-type: none"><li>✓ Set up dedicated compliance and risk management team</li><li>✓ Set up fraud, AML, suspicious activity monitoring</li><li>✓ Flag suspicious activity and report to authorities</li></ul>

While card issuance has existed for decades now, organizations today have to make a choice between setting up the card program end to end on their own, vs. leveraging an

laaS provider for launching their cards. Below outlined are some of the key pointers that businesses take into account while finalizing their launch and issuance plans for cards:

Details	laaS managed program	Own program (traditional method)
Faster Go-to-Market	✓	✗
Serve niche use cases	✗	✓
Have visibility over transaction level data	✗	✗ <small>(unless the business is also a processor/TSP for the issuer)</small>
Dedicated engineering, operations & risk team required	✗	✓
Low code/No code	✓	✗
High level of customisation	✗	✓

While there are definite pros and cons that need to be evaluated for both options, we have summarized below, our recommendations on who should look to build

their own card program from scratch vs. who should consider launching through a managed program by an laaS provider:

Build own Card Program	Use managed program with an laaS provider
<ul style="list-style-type: none"> <li>✓ Entities that are looking to provide issuance as a service themselves in the future</li> <li>✓ Entities that have a prepaid license or are entities who have a more strategic play in the payment processing value chain (eg: banks, payment aggregators)</li> <li>✓ Entities where a very high level of customisation is required or that have niche program requirements that laaS providers cannot fulfill</li> </ul>	<ul style="list-style-type: none"> <li>✓ Entities looking for a fast Go-to-Market to capture an underserved market (eg: B2C fintechs/ neobanks, ecommerce/D2C, SME fintechs etc)</li> <li>✓ Entities for whom the core business differentiation is not payments but card issuance can enable a new stream of revenue</li> <li>✓ Entities that want to issue co-branded cards but do not have the ability or intent to set up large dedicated engineering, risk, compliance &amp; operations &amp; customer support teams for a card program</li> </ul>

## Chapter V

# Specific benefits for specific industries

### 5.1 Specific use-cases for card issuance

Issuance as a Service is witnessing a demand across industries with new use cases emerging rapidly to fulfill the underserved needs of

various customer segments, with fintechs and digital platforms driving this growth. If we take the example of credit cards, India saw a CAGR of 17.2% between 2017 and 2020, with the growth primarily driven by co-branded partnerships between tech and banks.



We have outlined below, a few use cases for card issuance, that are coming into prominence:

### **A. Easy launching, scaling and innovation for fintech companies**

For fintech companies looking to serve both underserved and overserved customer segments in the space of consumer finance, accounting & invoicing, lending and adjoining segments, laaS for cards provides a plug-n-play, flexible model for easier experimentation and go-to-market vs other financial instruments. This enables fintechs to focus on building customer-centric business models at lower cost and time to market, while leveraging the credit or prepaid license of authorized banking partners.



### **B. Transforming banks- enabling new age services for customers**

With digital payments becoming a must-have for all consumer and business banking customers, many of the existing Small Finance Banks, PSU banks and co-operative banks have begun leveraging laaS infrastructure of fintechs to enable seamless card issuance for their customers in much lower time to market vs building the entire infrastructure in-house. Therefore, banks themselves have become a large target market for laaS.

### **C. Credit and prepaid cards for E-commerce and marketplace companies**

There are two major use cases of card issuance in the e-commerce and online marketplace space. The first use case is customer-focussed, where e-commerce companies are entering into co-branded credit card arrangements with banks, to provide specific deals, loyalty cashback and rewards for recurring customers paying through the credit card on the e-commerce company's and their partner's app. For example, Amazon has partnered with ICICI & HDFC and Flipkart has partnered with Axis Bank for co-branded credit cards. Infact, according to data published by RBI, credit card users spend 76% more on ecommerce vs on offline stores. This has fueled the trend of co-branded credit and prepaid card issuance by ecommerce players.





#### **D. The advantage to large corporates/enterprises-employee services, contract workers**

Large corporates and enterprises are starting to adopt card issuance to mitigate the challenges of complex manual processes for expense management, sales incentive payouts, contract worker payroll among other use cases. For example, Happay, a startup acquired by Cred, provides card-based expense management solutions for businesses with customisable reports and expense controls for the businesses.

#### **E. Enabling fleet expense management for the logistics industry**

Traditionally, mono-branded and co-branded prepaid card programs run by banks and by leading downstream oil and gas companies provide fuel expense management and loyalty solutions for consumers. With the growth of startups streamlining the logistics industry, there is an increased focus on launching card programs customized to the requirements of fleet owners and commercial vehicle drivers. These cards are issued to drivers/logistics partners and enable fleet owners to track and manage expenses arising from fuel, FastTag, lodging and meals and in some cases, also the driver salary. Logipe, an early-stage startup in the logistics space, enables issuance of prepaid cards to logistics players for fleet management with Fast Tag integration.



#### **F. Digital financial inclusion for co-operative banking customers and underbanked population**

A large number of individuals in semi-urban and rural areas have deposits in co-operative societies, where the access to online banking, debit cards etc is limited. In such scenarios, there are fintech companies that facilitate prepaid and debit card issuance for co-operative societies and banks to enable online and POS card transactions for customers of co-operative societies, thereby driving financial inclusion.



### **G. MSME/SME Founder Credit Cards**

One of the key emerging use cases for credit card issuance for fintechs in collaboration with banking partners, is expense management and working capital credit for sole proprietors and founders of SME and MSME companies. Many of these companies in their early growth stage do not have traditional access to credit, especially for the business requirements of the entrepreneurs. Customised credit lines provided where the credit issuer is the bank and the customer acquisition is by the fintech, greatly opens up opportunities for the same. One such example is the Founders Card launched by Zaggle, an SME focussed Fintech. Zaggle has partnered with a bank to issue 'Founders Card' to enable SMEs and early-stage startups to streamline their working capital cash flows.

### **H. Facilitating payroll & salary disbursement for blue collar & gig economy**

With the rise of the gig economy, there is an increasing demand for digital payment and salary disbursement solutions for the underbanked and new to credit blue collar workers such as delivery boys. This has given rise to card programs issuing salary/ payroll cards for the blue-collar economy. An example of this is Zenpay - a fintech that issues a salary card focussing on solving the payroll challenges for employers and employees.



## Chapter VI

# Regulatory Landscape for Card-Issuance

### 6.1 Introduction

There are multiple regulations that support BaaS in general, as highlighted in Chapter-2. For card issuance, these standard BaaS regulations, such as RBI guidelines on outsourcing and business correspondents, as well as contractual arrangements with banks and other REs for use of their issuing APIs govern the laaS set-ups. Contracts with card switches, card networks, BIN sponsors and

others are also involved, bringing card network rules, PCI compliances, etc.

In addition to these, specific RBI regulations on the issuance of debit, credit and prepaid cards, as well as for co-branding arrangements apply. To enter into an laaS arrangement, both the issuers of the cards and the customer-facing businesses providing the laaS services need to comply with these. The same rules also apply irrespective of the form of issue of the card, i.e., plastic card, virtual card, etc.



## Regulations that apply to IaaS

 Issuers	RBI Card Issuance MD	RBI PPIs MD	
	Player-specific norms (like Payments banks)	International cards issuance	
 Compliance	PCI compliances	Tokenisation	DPSCs
	Fee related like MDR	KYC/AML norms	Security related- AFA, EMV, NFC
	Card Network Rules	Cash withdrawal	Interoperability
	Failed ATM transactions	Card-to-card fund transfers	Privacy & Confidentiality
 Businesses	Co-branding norms	Outsourcing norms	
	Business Correspondents	Fair Practices Code	

A number of applicable requirements under RBI regulations are scattered, covering requirements like tokenisation, restrictions on storing card data, security requirements like AFA/ EMV, prudential norms for issuers and so on. Apart from these, two primary sets of regulations governing cards issuance are the RBI's recent Master Direction on Debit Cards and Credit Cards- Issuance and Conduct Directions, 2022 (the 'Card Issuance MD'), and the RBI Master Direction on Prepaid Payment Instruments ('PPI MD'). The former sets out the rules for issuance of debit and credit cards and for co-branded cards, while the

latter deals with prepaid cards and their issuers.

## 6.2 Issuance of Credit Cards

### 6.2.1 Who can issue credit cards?

For IaaS players, the first step is to partner with a regulated entity authorised to issue credit cards or obtain the authorisations themselves. With multiple players in the cards issuance space, the Card Issuance MD sets out who can issue cards and their eligibility criteria. In a plus for NBFCs, which are actively

tapping into the BaaS route to expand their customer base and is a sought-after license for BaaS players, the Card Issuance MD also clears the air on issuance of CCs by them.

NBFCs will be able to issue CCs subject to meeting prescribed criteria like prior approval of RBI and having a minimum net owned fund of Rs.100 crore.

### Issuers of Credit Cards

Issuer	Eligibility Criteria
SCBs other than RRBs	Net worth Rs.100 crore, Board approval
SCBs other than SFBs and RRBs	Prior RBI approval for separate subsidiaries
RRBs	In collaboration with sponsor/ other banks
UCBs	Board + RBI approval, no co-branded cards, credit cards to members only, other restrictions
NBFCs	Prior RBI approval, minimum net owned fund Rs. 100 crore

In addition to these, there may be specific restrictions under specific guidelines, for example the RBI under its guidelines does not allow payments banks to issue credit cards.

While any card issuance needs to comply with the Card Issuance MD and other applicable regulations as a whole, there are some specific provisions from an IaaS standpoint. The Card Issuance MD permits issuers to engage agents, including direct sales agents for CCs, making their engagement subject to certain safeguards under these norms as

well as the Fair Practices Code. Compliance with RBI KYC and outsourcing norms here for any kind of card issuance (debit/ credit/ prepaid) is also specified. While the exact terms of the engagement between an issuer and an IaaS partner vary from case to case, businesses providing BaaS services often take the outsourcing route or act as direct selling agents for regulated players. For CCs in fact, the regulated players sometimes also engage the IaaS partner itself to act as a recovery agent.



### 6.2.2 What kind of credit cards can be issued?

The Card Issuance MD moreover breaks down the kind of CCs that can be issued by

these players. The CCs issued through IaaS partners are thus also restricted to these- which include credit cards, charge cards and cards linked to overdraft accounts, issued for personal and business use.

### Types of Credit Cards



CCs/ charge cards to individuals for personal use



Cards linked to overdraft accounts as personal loans



Business CCs to businesses/ individuals for business expenses



Business CCs issued as charge cards/ corporate cards/ linked to overdraft/ cash credit facility



Add-on cards to persons identified by cardholders

### 6.2.3 Customer safeguards for CC issuance

Apart from the details of the cards, a significant feature of the Card Issuance MD is the number of customer safeguards it enumerates, possibly a consequence of recent instances of abuse with unauthorised digital lending and the RBI Report on Digital Lending which prioritized customer protection.

Explicit customer consent has been made the cornerstone of CC issuance, along with transparency as to interest charged and billing practices. Many others are prescribed under the Card Issuance MD including a 7-day notice before reporting a default to credit bureaus, and penalties for unsolicited charges. All of these safeguards also become compliance checks for issuers and their laaS partners.

### Key Customer Safeguards & Issuer Compliance Checks for Credit Cards

<b>Transparency</b>	<ul style="list-style-type: none"> <li>✓ Board approved policy on website</li> <li>✓ One-page Key Fact Statement &amp; MITC to customers</li> <li>✓ Transparency in converting transaction to EMI</li> </ul>
<b>Customer Consent</b>	<ul style="list-style-type: none"> <li>✓ Unsolicited cards issuance/ upgradation prohibited</li> <li>✓ Explicit customer consent for issuance, activation</li> <li>✓ Breach of sanctioned credit limit needs consent</li> <li>✓ Explicit consent to adjust credit amount beyond cut-off</li> </ul>
<b>Interest &amp; Billing</b>	<ul style="list-style-type: none"> <li>✓ Justifiable, transparent interest rates compliant with RBI norms</li> <li>✓ Bills to quote APRs, annual fees, late fees charged + method of calculation</li> <li>✓ Inform cardholders of implications of paying 'minimum' amount due</li> <li>✓ Billing statements to customer mail, minimum. 15 days for making payments</li> <li>✓ No levy of charges for transactions disputed as fraud until resolution</li> </ul>

<b>CIC reporting</b>	<ul style="list-style-type: none"> <li>✓ Reporting to CIC, 7-day notice period before reporting defaults</li> </ul>
<b>DSA/ DMA/ other agents</b>	<ul style="list-style-type: none"> <li>✓ Role of Direct Sales/ Direct Marketing/ other Agent limited to soliciting/ servicing customer</li> <li>✓ Disclosure of customer info to DSA/ DMA/ recovery agent/ others limited to need-basis</li> </ul>
<b>Recovery Agents</b>	<ul style="list-style-type: none"> <li>✓ Recovery agents to adhere to Fair Practices Code, no intimidation/ harassment</li> <li>✓ Card issuers will be liable for acts of their agents</li> <li>✓ Ensure no mis-selling by agents, provide dedicated helpline</li> </ul>
<b>Others</b>	<ul style="list-style-type: none"> <li>✓ Assess credit risk &amp; credit limit independently</li> <li>✓ Loans through cards to comply with other regulations</li> <li>✓ On request close CC in 7 days, subject to payment of dues</li> <li>✓ Penalties for unsolicited charges, failure to close CCs, etc.</li> </ul>

The Card Issuance MD also lists customer safeguards that apply generally to all cards issued (debit, credit, co-branded). These include requirements like providing the Most Important Terms and Conditions (MITC) sheet, indicating reversal timelines,

transparency in charges, prohibiting the levy of any charge without intimation at the time of card issuance, providing grievance redressal mechanisms, no unsolicited issuance, etc. In addition, it requires compliance with KYC/ AML norms and RBI outsourcing norms.

## 6.3 Issuance of Debit Cards

The issuance of debit cards is naturally a simpler matter, being a payments instrument allowing debit from the customer's bank account, as opposed to credit cards which involves the element of providing credit and underwriting risk. Banks are permitted to issue debit card without the need for prior approval

from the RBI. The rules the Card Issuance MD lays out are also simpler than for CCs, even though co-branding, etc., are still subject to additional safeguards as discussed in the next part. An interesting point is the permission granted to issue the debit cards in a form apart from a plastic card, such as wearables. This will need customer consent and a report to the RBI.

### Key Points for Debit Card Issuance



Can be issued by banks operating in India



Board policy, no prior RBI approval needed



Issuable only to customers having savings/ current accounts



No debit cards to cash credit/ loan account holders



Cannot force customers to take DCs/ links DCs to availing other facilities



Alternative forms like wearables allowed with explicit customer consent , report to RBI



Options for blocking through m-banking, net banking, SMS, etc.

## 6.4 Issuance of Co-branded Cards

For IaaS, co-branded cards have an appeal for businesses to provide cards bearing their logos, offer targeted discounts, cashbacks and other such offers to their customers, and to build loyalty. For the protection of customers in such arrangements, the Card

Issuance MD and PPI MD both prescribe norms here, such as requiring the actual issuer's name to be displayed prominently on the card, or restricting the co-branding partner's role to distribution and customer acquisition. Privacy restrictions on the amount of information shared with the partner and making it subject to customer consent have also been introduced.

The PPI MD governs the issuance of co-branded prepaid cards. Bank PPI issuers additionally need to comply with the Card issuance MD, which otherwise covers

co-branded debit and credit cards. The requirements under both MDs are however similar.

<b>Issuing co-branded cards</b>		
<b>Terms</b>	<b>For credit, debit and bank prepaid cards u/ Card Issuance MD</b>	<b>For bank and non-bank prepaid cards u/ PPI MD</b>
<b>Eligibility &amp; Approvals</b>	<ul style="list-style-type: none"> <li>✓ No prior RBI approval needed</li> <li>✓ UCBs cannot issue debit/ credit cards through tie-ups with non-banks</li> <li>✓ Issuers to have board approved policy, carry out partner due diligence</li> <li>✓ NBFCs can issue co-branded credit cards, comply with this MD and NBFC Master Directions</li> </ul>	<ul style="list-style-type: none"> <li>✓ Non-bank PPI issuers need one-time RBI DPSS approval</li> <li>✓ PPI issuers partnering with other regulated financial entity to get its regulator's approval</li> <li>✓ PPI Issuer's board approved policy needed, carry out partner due diligence</li> <li>✓ Co-branding partner can be company incorporated in India, govt. Department or bank</li> <li>✓ For partnership between bank and non-bank entity, bank will be the PPI issuer</li> </ul>
<b>Branding &amp; Disclosure</b>	<ul style="list-style-type: none"> <li>✓ Cards &amp; marketing materials to clearly indicate co-branding + issuer name</li> <li>✓ Display revenue sharing between card-issuer and co-branding partner on issuer's website</li> </ul>	<ul style="list-style-type: none"> <li>✓ Co-branding allowed, prominently display issuer name on cards</li> <li>✓ For 2 non-bank PPI issuer partners, indicate which one is the issuer in the agreement</li> </ul>
<b>Issuer's Liability</b>	<ul style="list-style-type: none"> <li>✓ Issuers liable for acts of co-branding partner, to adhere to Outsourcing norms</li> <li>✓ Issuers to ensure and liable for timely delivery of promised cashbacks, discounts, etc.</li> </ul>	<ul style="list-style-type: none"> <li>✓ PPI issuers liable for acts of co-branding partner</li> <li>✓ Liable for all customer related aspects on PPIs</li> </ul>

Terms	For credit, debit and bank prepaid cards u/ Card Issuance MD	For bank and non-bank prepaid cards u/ PPI MD
Co-branding partner's Role	<ul style="list-style-type: none"> <li>✓ Role of co-branding entity limited to marketing/ distribution &amp; providing cardholders access to offered goods/ services</li> <li>✓ Co-branding entity will have no access to transactions info on the co-branded cards</li> <li>✓ Co-branding entity cannot access any details of customer accounts that can violate issuer's secrecy obligations</li> </ul>	<ul style="list-style-type: none"> <li>✓ For partnership between bank and non-bank, role of non-bank limited to marketing/ distribution &amp; providing access</li> </ul>
KYC	<ul style="list-style-type: none"> <li>✓ Compliance with KYC/AML u/ KYC MD needed</li> </ul>	<ul style="list-style-type: none"> <li>✓ Compliance with KYC u/ PPI MD needed</li> </ul>

## 6.5 Issuance of Prepaid Cards

Prepaid Cards, being a type of PPI, are regulated under the RBI's PPI MD. A PPI license allows banks and non-banks to issue prepaid payment instruments like prepaid cards and m-wallets. Interoperability norms moreover allows them to issue card network affiliated prepaid cards, which eases the creation of new acceptance infrastructure, allowing the cards to be accepted on standard Visa/ Mastercard rails. The same goes for m-wallets, which can have UPI handles allowing them to be accepted on UPI rails.

Several other developments have also made the PPI license an attractive option for non-banks and an effective BaaS substitute, such as:

- Allowing non-bank PPI issuers access to centralized payment systems (NEFT/ RTGS) which improves reconciliation and settlement processes
- Recent increase in balance limits to Rs.2 Lakhs from Rs. 1 Lakh
- Allowing cash withdrawal from non-bank PPIs also, earlier this was bank PPIs alone
- Mandating interoperability, i.e., UPI/ card networks affiliations for PPIs easing acceptance as a whole

### 6.5.1 BNPL Cards and the Challenger Credit Card Model

Buy Now Pay Later (BNPL) services operate on various models. This includes PPIs as one

of the key methods to operationalise these. The latest Digital Lending Guidelines issued by the RBI however brought this to an end, through a mandate that all loans must be disbursed directly to the borrower's bank account. The use of full KYC PPIs for loan was in fact a key point of discussion in the Report of the Working Group on Digital Lending set up by the RBI last year. The industry is hoping for this use to be reintroduced, even as they have discontinued use of PPIs for BNPL at present and turned to alternative routes like direct disbursement to bank accounts.

Also worth noting here is the model of providing BNPL by loading PPIs through credit lines, another practice that led to the creation

of new age 'challenger credit cards' and was brought to an end by a clarification from the RBI in June, 2022, that the PPI MD does not permit PPIs to be loaded from credit lines.

While the clarification was primarily directed at 'authorised non-bank prepaid payment instrument issuers', it applies to all PPIs, including bank-issued PPI credit-based products. This again led to a switching of BNPL models. Other alternatives being explored here include obtaining an NBFC license for credit card issuance or using overdraft facilities linked to bank accounts. The essential intent here is that any loan must hit a bank account first.

## 6.6 Other applicable norms

There are multiple other norms that apply, which are discussed in brief below.

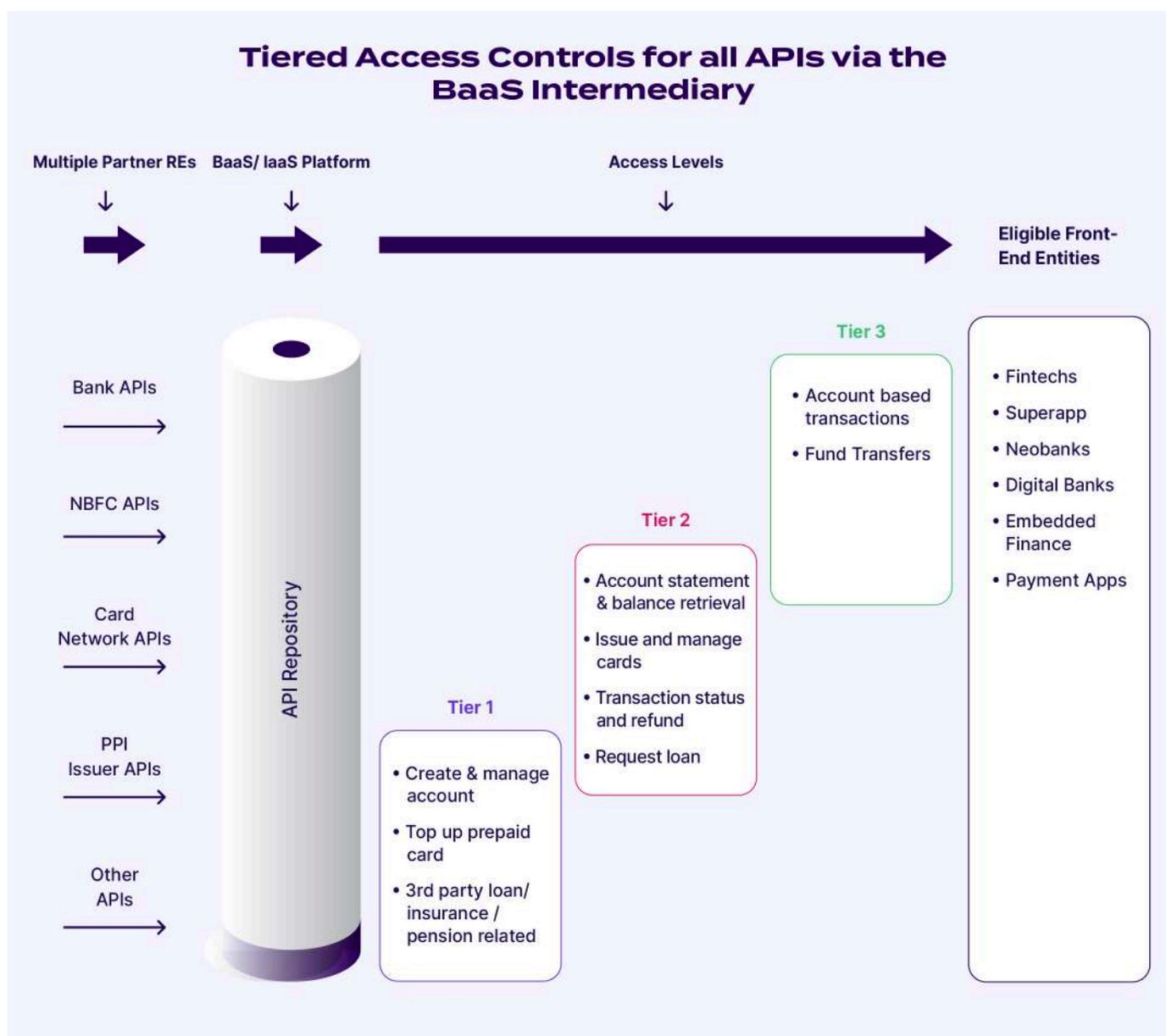
Category	Details of Requirements
<b>Card form</b>	On the card itself, different RBI regulations prescribe requirements such as on the form of the card, which can be physical/ virtual. Paper based vouchers for prepaid for example are discontinued. The Card Issuance MD in fact also permits alternative forms like wearables, with customer consent and notice to the RBI.
<b>Security</b>	From a security standard point, there are different rules, like the issuance of EMV Chip and PIN cards, requirements for contactless NFC cards and tap-n-go payments, etc. The Digital Payment Security Controls issued last year also prescribe requirements like following standards like PCI-PIN, PCI-PTM, PCI-HSM, etc., using PCI approved P2PE solutions for PoS terminals, etc.
<b>Authentication</b>	Mandatory AFA norms are another factor here, which have been relaxed by the RBI upto Rs. 15,000/- recently from previous caps of Rs.2000/- and Rs. 5000/-.

Category	Details of Requirements
<b>Tokenisation</b>	The RBI restricts any player (including merchants) apart from issuing banks and card networks from storing card data. Card data thus needs to be replaced with a 'token' to allow payment processing including refunds and chargebacks to continue unhindered. Here there are tokenisation norms allowing device-based and card-on-file tokenisation to be followed.
<b>Interoperability</b>	Mandatory interoperability as discussed previously has also brought ease, allowing prepaid cards to be card network affiliated and to be accepted on card rails.
<b>ATM Withdrawals</b>	ATMs similarly allow both on-us and off-us transactions, bringing ease to cash withdrawals for card-holders irrespective of the specific issuer of the card. RBI has also permitted cash withdrawal from prepaid cards. Various norms prescribe caps and applicable charges for these.
<b>PCI/ Card Network imposed</b>	Apart from RBI prescribed rules, there are a number of rules for card issuance, management and fund flows which are defined by the card networks like Mastercard/ Visa, or by the NPCI for RuPay. The rules vary for physical and virtual cards, and require PCI compliances like PCI-DSS. Rules for international cards vary.
<b>Fee related</b>	Lastly, there are several RBI issued rules on the charges that can be imposed, including on the merchant discount rate or MDR, which is capped for debit cards and mandated to be zero for RuPay and UPI transactions. The RBI's recent discussion paper on payment system charges and implications outlines these in detail.
<b>Card to card fund transfers</b>	There are also separate norms governing card-to-card fund transfers, such as RBI norms on Domestic Money Transfers which permit various transfers between debit, credit, prepaid cards and bank accounts. The NPCI also issues norms for settlement and reconciliation, etc.

## 6.7 Proposing a New Regulatory Approach for IaaS Intermediaries

Current regulatory/ compliance requirements primarily apply to the issuers. At present, IaaS platforms are not directly regulated, though several of the requirements apply either indirectly, via outsourcing norms or are passed on contractually. IaaS platforms in fact can play a key role in simplifying compliance for other players and in reducing risk in the system.

For this, a new regulatory model for BaaS can be relied on, one which allows banks and other issuers to release their APIs for card issuance, which are aggregated by the IaaS platform and made available to fintech players. The access provided moreover will be tiered, allowing greater access to lower-risk players which meet pre-defined risk criteria. The model for BaaS as a whole, including card issuance APIs, looks something like this:



## Chapter VII

# Conclusion

The innovation opportunity via API driven technology for meeting the payments and banking needs for businesses today is immense, allowing customised solutions and changes to traditional business models. IaaS itself, as an evolutionary corollary to BaaS, allows businesses to accelerate and streamline card issuing mechanisms, creating unique and personalised experiences for consumers through accessible APIs and programmable controls. The flexibility provided here allows a contribution to financial inclusion, enabling paperless and remote onboarding for customers and providing a secure and hassle-free way to conduct transactions.

Even as the digital economy warrants significant changes to the existing regulatory landscape, the promise of BaaS is encouraging and incentivising businesses to adopt the new age solutions offered. IaaS offerings today enable faster go-to-market and quick technological integrations for the fintech industry such as for neobanks and wealth management companies, while similarly allowing banks to easily explore new territories

and acquire new customers through new issuing models. Employee management for businesses becomes easier with credit or prepaid cards customised for use-cases from payroll to reimbursement to authorised expenses. An extended use-case here is by facilitating account creation and/ or salary disbursement for blue collar & gig workers, thus also encouraging financial inclusion for under-banked populations. The e-commerce industry can tap into these for managing customer refunds and loyalty programs through prepaid or co-branded cards, while the logistics industry can use these for fleet expense management.

Even the regulatory front is continuously evolving, with the recently issued Card Issuance MD and PPI MD together being the primary regulations for norms on card issuance. Other applicable norms are of course multiple and varied, covering everything from the form of the card to security requirements like AFA to data protection obligations like restrictions on data sharing or even tokenisation.

Given the ever-changing fintech market and the continuous entry of new players into the domain space of traditional banking, the financial regulator is expected to continue altering the playing field to meet its mandate to balance the interest of consumers while supporting innovation. Issuers like the banks, NBFCs, REs and allied service providers as well as IaaS platforms and users need to be up to date with these and continually adapt to compliance obligations and associated

emerging challenges. Simultaneously, the innovation opportunity offered by the regulator, via the Regulatory Sandbox, Innovation Hub, and other such supportive steps, should also be leveraged.

With fintech innovation and bank-fintech partnerships reaching the core of banking services today, customers can look forward to an exciting new experience with their payments and banking experiences.

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