wibmo
a PayU company

WIBMO
HEXA
PREPAID PLATFORM

APRIL 2023

WIBMO
HEXA
PREPAID PLATFORM

CARD ISSUANCE

- Physical, Virtual Card & Wallet support
- End-to-end Card management & fulfillment
- Customized program experience & benefits
- Support issuer and network tokenization
- Hassle-free on-boarding

CARD PROCESSING

- Flexible Payment controls & Open payment flows
- Card acceptance & Network Flexibility
- End-to-end settlement & chargeback management
- Integrated PG for loading cards/wallets
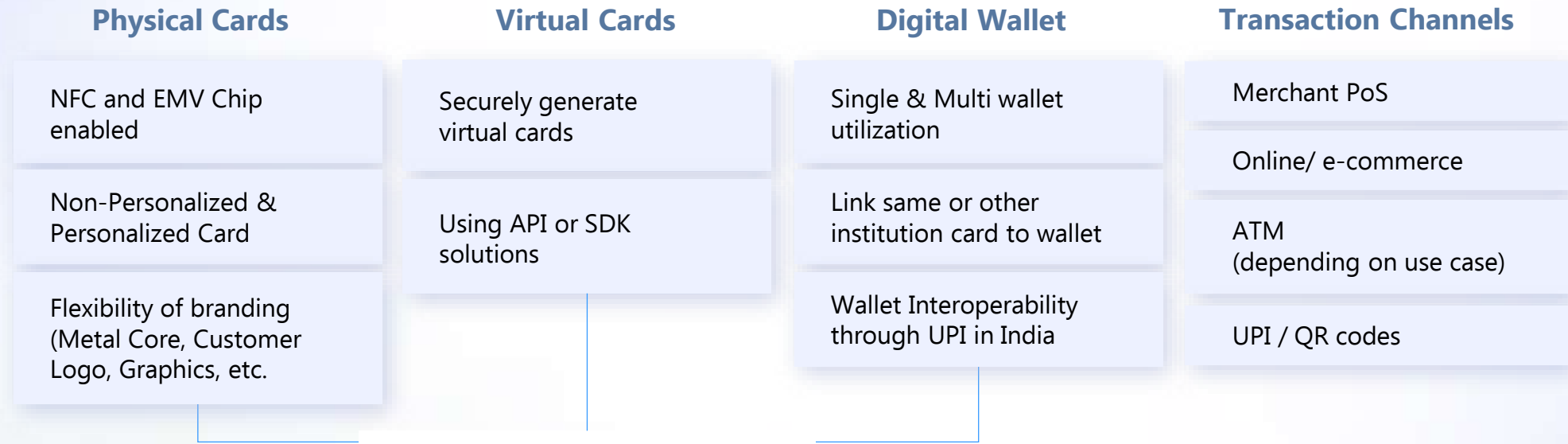
CARD OPERATIONS

- Self Service Developer Tools
- Use-level access to Admin Dashboard
- Fraud detections & Alerts
- Analytics & Raw data extraction
- Program Management

ARCHITECTURE

- High availability, low latency & scalability
- Easy to integrate RESTful API stack
- Assured security Compliance
- Ready for your Global expansion strategy

Hexa Offerings

Physical Cards

- NFC and EMV Chip enabled
- Non-Personalized & Personalized Card
- Flexibility of branding (Metal Core, Customer Logo, Graphics, etc.

Virtual Cards

- Securely generate virtual cards
- Using API or SDK solutions

Digital Wallet

- Single & Multi wallet utilization
- Link same or other institution card to wallet
- Wallet Interoperability through UPI in India

Transaction Channels

- Merchant PoS
- Online/ e-commerce
- ATM (depending on use case)
- UPI / QR codes

Hexa instrument form factors

Functionalities

- Program Setup/ Configuration
- Physical card manufacturing & fulfillment
- Card lifecycle management
- Transaction processing
- All form factors: Physical/virtual cards, wallets

- Mobile wallets
- Card controls
- Co-branding partners: Banks, nonbank PPIs
- Payment security
- Managed services, operations, reporting

Key Benefits

Fully configurable and customizable platform

Highly secure and compliant, all major network & Infosec certifications

Quick go to market with BIN sponsor bank and end-to-end program management

100% API coverage, open banking ready

Built for scalable and high transaction throughput

Hexa Clients & Partners

Banks

HDFC BANK PAYZAPP	Virtual Card
SBI	Travel/Forex Card
Bank of Baroda / Bank of Baroda (Kenya) Ltd.	Travel/Forex Card & Gift Cards
KVB Karur Vysya Bank	Gift Cards
Karnataka Bank Ltd	Gift Cards
kotak	Virtual Card
Central Bank of India	Govt Benefit Cards

Fintechs/Merchants

Crs	Open Loop Wallet card
LAZYPAY	BNPL Prepaid cards
xoxoday	Employee Benefits & Gift
ACCUPAYD MY PAY	GPR & Gift
VoloFin	Employee Benefits- Multi wallet
Amul	Closed Loop Wallet
ZUSTPE	Closed Loop Wallet
	Closed Loop Wallet

Eco Systems/Partners

VISA	Visa Readiness Program
NSDL Payments Bank	Bin Sponsor
TRANSCORP	Bin Sponsor
standard chartered	Referral Partner

Hexa Prepaid

Form factors and use cases

Gifts Cards

Multi-currency Travel Cards

Closed Loop Cards

GPR Cards/Wallets

Corporate Cards

NCMC Cards

Govt Loans & Scholarship Cards

Health & Wellness Cards

Meal Cards

Loyalty & Cashback Cards

Multi-wallet Benefits Cards

Entertainment Cards

High availability & scalability

90+ prepaid solutions implemented

4 Cr Virtual Cards/Wallets

25+ Banking Clients

60 Lakh Plastic Cards issued

70 Lakh transactions processed per month

INR 350 Cr+ worth Transactions processed per month

WIBMO HEXA PREPAID PLATFORM

Instant Cards & Accounts
Card issuance and Account creation with online & video KYC

All encompassing Payments
Combination of Mobile Wallet, Unified Payments, Tap & Pay, Cards, Authentication & Payment Gateway

Stored Value Account for E-money cards
KYC , AML management, Card Management, Regulatory Compliance

Mobile front end
White label mobile front end available as APIs/SDK

Supplementary cards
Supports add on cards, parent-child cards/wallets with balance share

Limit & rule management
Configurable limits and rules at program, card level based on regulatory norms, internal risk policies, business rules

Hyper-personalization
Customized flows for different consumers types

Wallet/card auto load
Keeping the wallet/card loaded with funds for payments via PG, auto load via standing instruction

Analytics & Reporting
Rich payment analytics and reporting

One-Step™ Payments
Consistent one click payment experience across all channels

Fraud and risk monitoring
Real-time monitoring and prevention

Open banking
Support for open banking API standards

HEXA Prepaid Platform

Open API stack for comprehensive card/wallet issuance and lifecycle management

01 Issuance Services
- Create card
- Activate card
- Dedupe (based on unique identifier like mobile number)

02 Card Lifecycle Management
- Change card status
- Block card
- Unblock card
- Renew card
- Check transaction status

03 Profile Management
- Verify card holder
- Retrieve customer record
- Update card holder profile

04 PIN Management
- Set /reset PIN
- Validate PIN

05 Transaction Management
- Transaction inquiry
- Fetch account statement
- Credit/load card
- Debit/unload card
- AML, limit inquiry
- Customer load/unload account (JIT funding)

06 OTP Services
- Mobile number based send OTP
- Mobile number based validate OTP
- Email based send OTP
- Email based verify OTP

07 Beneficiary Management
- Create beneficiary account
- Fetch beneficiary account
- Delete beneficiary account

08 Profile Management
- Upload customer document
- Map customer KYC

API Stack - Global Modules

User Management

- Create User Role
- Modify User Role
- Create User
- Modify User
- Reset User password
- View User Report
- Search User

Entity Management

- Manage IFI
- Manage Client
- Link/Delink Client to IFI
- Manage Corporates
- Manage Branches
- Link/Delink Corporate to Client
- Link/Delink Branch to IFI

Program Hierarchy Mngt

- CRUD Program
- CRUD Single/Multi Wallet A/C
- CRUD Program Card Profile
- Set Multi-wallet advanced rules (Intra/Inter wallet Txns)

Multi-Currency Config

- Multi-currency Master
- Set Currency conversion
- Retrieve Conversion Rates
- Retrieve TP Conversion Rates

Txn Policy Engine

- Enable/Disable Channels
- Enable Disable Txn Types
- CRUD Txn Auth Rule (Includes MCC, MID & TID based auth)
- Link/Delink Auth Rule to Program
- Cool-Off Period Management

Limit Management

- Manage Regulatory Limits for IFI
- Manage Corporate Limits
- Manage Card Limits /Channel
- Manage MCC level Limits
- Manage Sub-wallet A/C Limits
- Manage P2P Limits
- Manage Individual Customer limits (S&B)

Inventory Management

- Ship to HO
- Ship to Corporate/Branch
- Stock Transfer
- Set Inventory Limit
- View Inventory
- Accept/Reject Inventory
- Update Damages

Card Personalization

- Personalization File Management
- Link Perso File with Program
- Upload Card Design
- Link/Delink Card Design

Fees Management

- Set Fees
- Modify Fees
- Remove Fees
- Waive Off Fees

Key Management

- Security Keys
- Key Process

Compliance Engine

- Configure KYC Policies
- Configure Docs Supported
- Configure AML Rules

Alert Management

- Set Email/SMS Alerts
- Manage Templates

Glossary - **IFI**: Issuing Financial Institution **CRUD**: Create | Retrieve | Update | Delete **S&B**: Single & Bulk Processing

API Stack - Domain Modules

Card Issuance

- Dedupe Application (S&B)
- Create Non-Personalized Card (S&B)
- Create Personalized Card (S&B)
- Link Card with Customer
- Create Virtual Card (S&B)
- Create Wallet (S&B)
- View Order
- Modify/Cancel Order (S&B)
- PAN & PIN Generation (S&B)

Lifecycle Management

- Block Card/Wallet/Sub-wallet (S&B)
- Unblock Card/Wallet/Sub-wallet
- Hotlist and/or Replace
- Refund & Close Card/Wallet
- Reactivate Card
- Add-on Card Request
- Add-on Card Request cancellation
- PIN Reset

Recon as a Service

- Set Recon Parameters
- Scheduler

Settlement Processor

- Scheduler
- Network Management Messages
- Direct Debit Report
- Open Auth Report

Txn Management

- Recharge Request (S&B)
- Card Adjustment (S&B)
- Service Area Creation (S&B)
- Offline Transaction Management
- Manage Recurring Payments

Beneficiaries & Payouts

- Set Beneficiary Params (Allow Self/Others)
- Set Cool-off Period
- Create/Remove Beneficiary
- Fetch Beneficiaries
- Fund Transfer (S&B)

MIS & Reports

- User Management
- Audit Trail
- Card Activation
- Profile Upgrade
- Daily Load & Unload
- Card status change
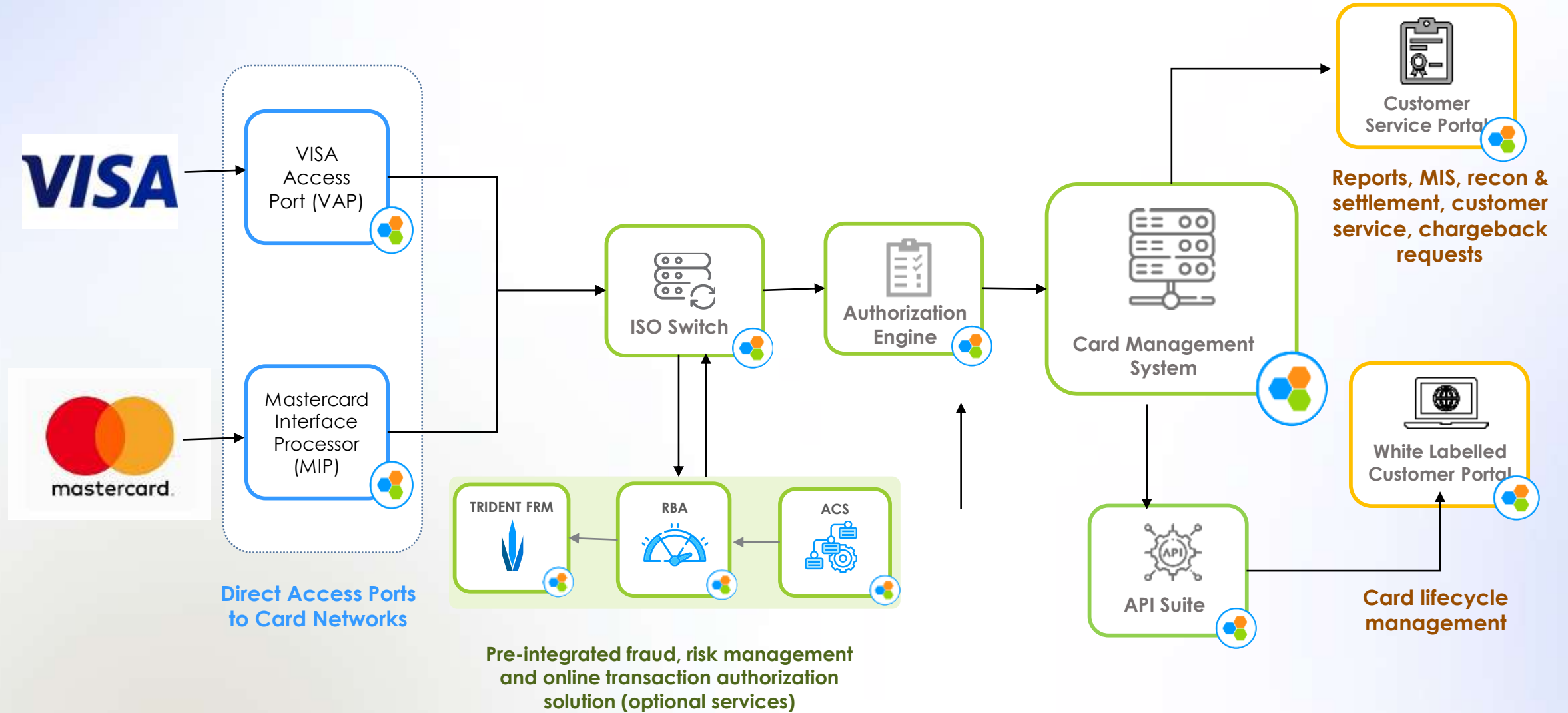- Card inactivity
- RBI Statics Report

Customer Service

- View Card Details
- View Transaction Details
- Search by Customer/Card/ Transaction ID
- CRUD Customer Service Request

Glossary - **IFI**: Issuing Financial Institution **CRUD**: Create | Retrieve | Update | Delete **S&B**: Single & Bulk Processing
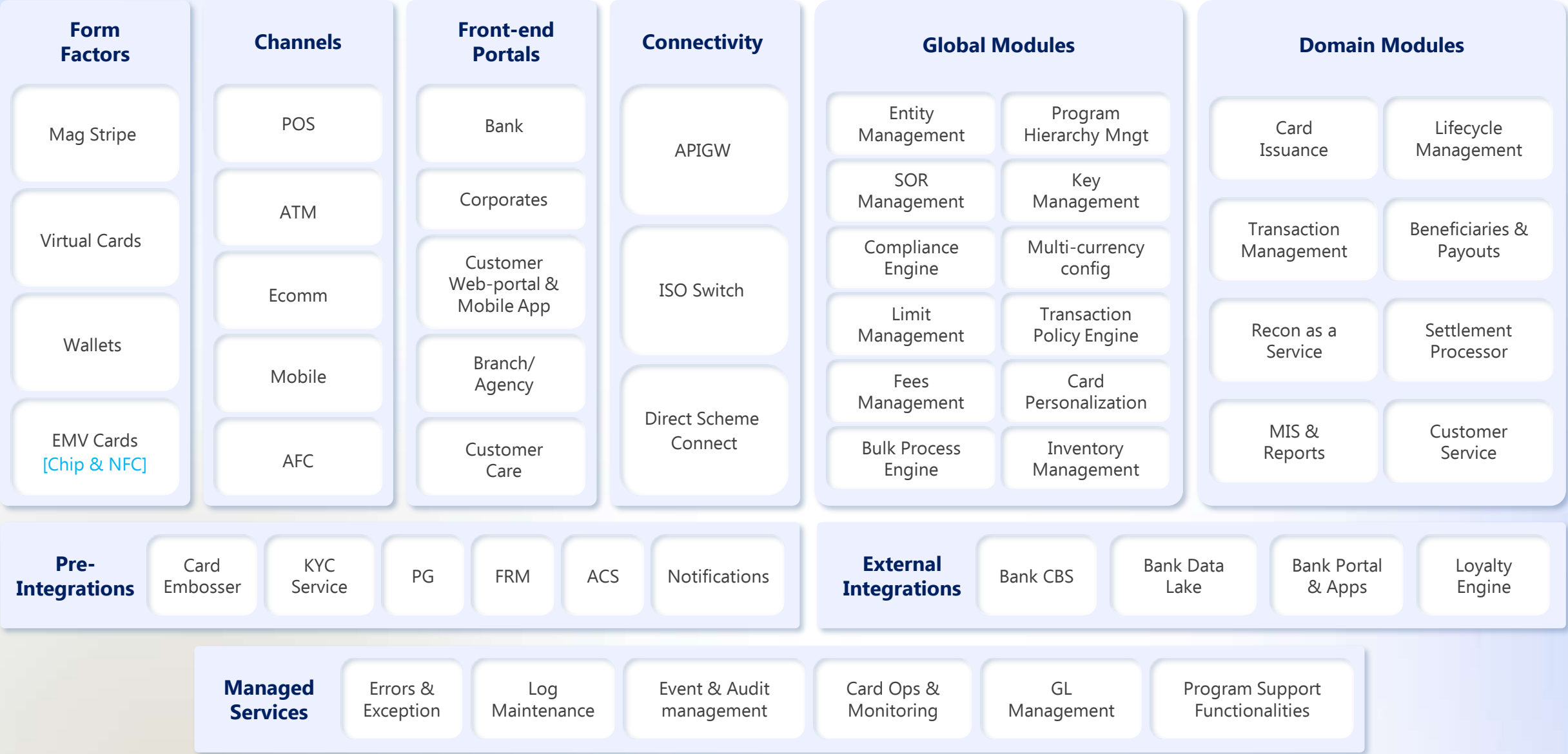
Card Issuance Platform
Product and Tech Components

VISA

VISA Access Port (VAP)

Mastercard

Mastercard Interface Processor (MIP)

Direct Access Ports to Card Networks

ISO Switch

Authorization Engine

Card Management System

Customer Service Portal

Reports, MIS, recon & settlement, customer service, chargeback requests

TRIDENT FRM

RBA

ACS

Pre-integrated fraud, risk management and online transaction authorization solution (optional services)

API Suite

White Labelled Customer Portal

Card lifecycle management

Functional Overview

Feature-rich, Modular stack with pre-integration support

Form Factors

- Mag Stripe
- Virtual Cards
- Wallets
- EMV Cards [Chip & NFC]

Channels

- POS
- ATM
- Ecomm
- Mobile
- AFC

Front-end Portals

- Bank
- Corporates
- Customer Web-portal & Mobile App
- Branch/ Agency
- Customer Care

Connectivity

- APIGW
- ISO Switch
- Direct Scheme Connect

Global Modules

- Entity Management
- Program Hierarchy Mngt
- SOR Management
- Key Management
- Compliance Engine
- Multi-currency config
- Limit Management
- Transaction Policy Engine
- Fees Management
- Card Personalization
- Bulk Process Engine
- Inventory Management

Domain Modules

- Card Issuance
- Lifecycle Management
- Transaction Management
- Beneficiaries & Payouts
- Recon as a Service
- Settlement Processor
- MIS & Reports
- Customer Service

Pre-Integrations

- Card Embosser
- KYC Service
- PG
- FRM
- ACS
- Notifications

External Integrations

- Bank CBS
- Bank Data Lake
- Bank Portal & Apps
- Loyalty Engine

Managed Services

- Errors & Exception
- Log Maintenance
- Event & Audit management
- Card Ops & Monitoring
- GL Management
- Program Support Functionalities

Self-service Portals and Dashboards

Self-service portals

Card Management Portal

Customer Service Portal

Simple to use Dashboard for managing your wallet operations

1. Super Admin – Wibmo
- User Management
- Security
- Password Policy
- Product and Program Configuration
- Product and Program Support
- Account Management
- Fees Management
- Reports

2. Client Admin (Business, Ops & Support Team)
- Order, issue and activate cards/wallets
- Bulk order and activation
- Provision Card & Tags to accounts
- View Link Cards
- Statement
- Balance Enquiry of user cards
- Post-issuance activities
- View all program details of client
- View Loyalty reports
- Program, aggregate and user-level MIS & Reports

3. Client Operations
- Balance Enquiry
- Top-up requests & reports
- Merchant or client program details
- Transaction report
- Card Status

4. Customer Escalation Management Team
- Balance Enquiry
- Top-up report
- Merchant or client profile
- Transaction report
- Card Status
- Customer Profile View
- Block/Un-Block/Close card (change status)
- Last Ten Transaction Info

Managed Services

Card creation (Plastic & PIN Management)

- Card design
- Card vendor finalization
- Card certification with Network – Chip + NFC, magnetic
- Management of Perso-file
- Card replacement

Dispatch & Delivery

- Support all Pin codes
- Card kit – Welcome letter, T&C, Card, Envelope
- Courier partner agreement
- Real time tracking on courier partner portal based on AWB number

FinOps

- Fund recon between Network and CMS
- Settlement recon between Network and CMS
- Tracking of all load and unload
- RBI reporting
- Chargeback
- GEFU
- JV
- General Ledger Management

SOP & SLA Documentation and management

- All processes are documented, and approval are taken from each respective stakeholder
- Version control and repository is maintained for each document
- SLA are defined for L1 and L2

Audit Support

- Providing all support related to transaction, reconciliation, Accounting and RBI reports

Customer Support (L1, L2)

- Dedicated Email and Chat contact support to manager all Query/Escalation and specified SLA
- Dedicated L2 support to manager backed related escalation in specified SLA
- ODR on portal

Portals and Dashboards

Card Management System

Customer Service Portal

Corporate/Branch/Agency Management

Customer Engagement Portal/App

WIBMO HEXA PREPAID PLATFORM

Corporate Solutions

- Corporate expense management
- Multi-wallet For Employee

Health wallet

- Health care card semi open/Closed card
- MCC defined solution as per clients' requirements

Semi closed loop/ Closed loop wallet

- Semi closed loop
- Open Loop
- Loyalty Wallet

Teen/Campus solution

- Student Cards
- Closed Loop

GPR – Physical & virtual cards/wallets

- Virtual Cards Online Payments
- Physical Cards : ATM / POS

Gifting Solution

- Gift Card for a Merchant
- Closed Loop for specific

BNPL Solution on Prepaid card/wallet

- Virtual / Physical card with Credit limit
- Instant approval facility

Government benefit disbursement

- Education related spends
- Scholarship

A Prepaid solution that fits your need

Platform Capabilities

Monitoring Capability
- Platform supports real time monitoring in production work loads
- Uses interactive dashboard to monitor the health and status of the application
- Provides alerts at each layer of the application like Instance down, process running status, CPU Utilization, I/O port up/down to notify the respective stakeholder

Reliable & highly scalable:
Based on SRE enables to run application with high time

Zero data loss architecture
Architecture follows Master/Slave strategy - Data is always replicated and available

1 **2** **3** **4** **5** **6**

Platform is horizontally scalable
Ensures all layers are highly scalable and cater to high traffic/workloads

RTO (Recovery Time Objective)
Platform supports both warm and hot DR follows app and DB replication, ensuring all application workloads will be active in the DR. RTO is achieved in <30 mins

Supports SLA of 99.5% uptime

Zero data loss architecture with 99.5% uptime

Security Certifications and Controls

- ✅ PCI DSS 3.2.1 certified

- ✅ Sensitive data encrypted to PCI-DSS Standards

- ✅ Protection against vulnerabilities listed in OWASP

- ✅ Standard AES256 & PGP algorithms for all sensitive data encryption (Card Numbers, Payloads, Perso files etc.,)

- ✅ Configurable role-based session time-outs and password policies & Improved password management

- ✅ Strong integration capabilities – ISO8583, RESTful, File based, Card Schemes

- ✅ Maker Checker Implementation for critical process

- ✅ Data Segregation – Multi-tenant model

- ✅ Sensitive data are masked/not-present in the log files

- ✅ Multi-tier architecture – Critical layers kept inside the DMZ zone

End-to-end Program Management

Program & Process Ownership

- Process definition & documentation
- SLA definition and alignment
- Key & User management for program access
- Maker-checker assignment and management across processes

Program Onboarding & Setup

- Liaise with Sponsor Banks & Networks for setup
- Vendor Management
- Kit design
- Secure PIN Generation/Printing
- Create BCP

Application processing & Issuance

- Inventory management
- Logistics management
- Post issuance support functions
- Transaction monitoring and management
- Fraud and risk monitoring

Settlements & Reporting Module

- Reconciliation & settlement with Networks (and clients)
- Reporting module
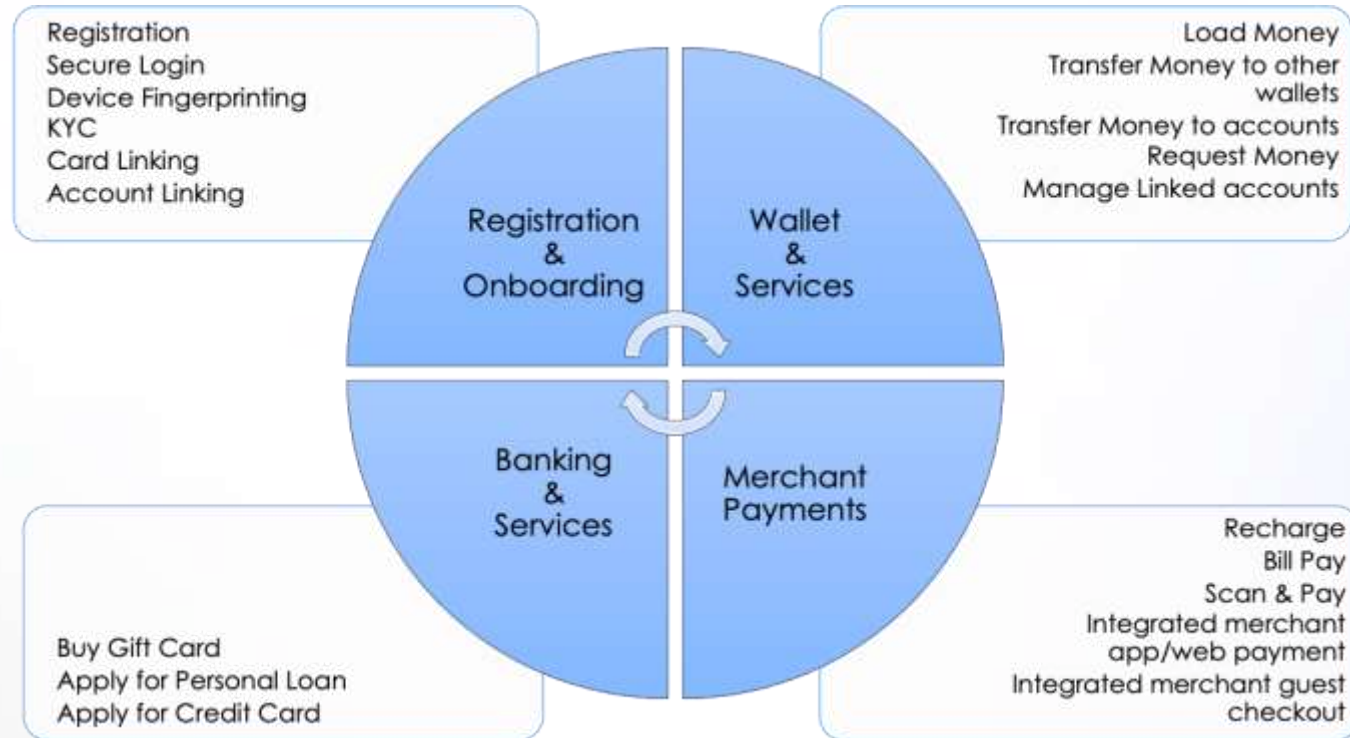- Back-office functions – Billing, GL Management

On-going Support

- Customer support – L1/L2/L3
- Tech support for New feature development or CR – L1/L2
- Compliance requirements – Renewal of compliance certifications, VAPT, DR Drills

Case Study – HDFC PayZapp

Largest Private Bank in India

PAYZAPP

HDFC BANK

All Payments
One App
One Click

Powered by wibmo

Registration
Secure Login
Device Fingerprinting
KYC
Card Linking
Account Linking

Load Money
Transfer Money to other wallets
Transfer Money to accounts
Request Money
Manage Linked accounts

Registration & Onboarding

Wallet & Services

Banking & Services

Merchant Payments

Buy Gift Card
Apply for Personal Loan
Apply for Credit Card

Recharge
Bill Pay
Scan & Pay
Integrated merchant app/web payment
Integrated merchant guest checkout

30M+	**270k**	**700k+**	**15M+**	**200k+**
Registrations till date	Merchants integrated	Transactions per day	Virtual cards issued	Sessions per day

Case Study – BDO Pay (Philippines)

BDO Pay Users
- Link BDO accounts
- Utility Bill Payments
- Send Money
- Request Money
- Split Bill
- Scan QR & Show QR
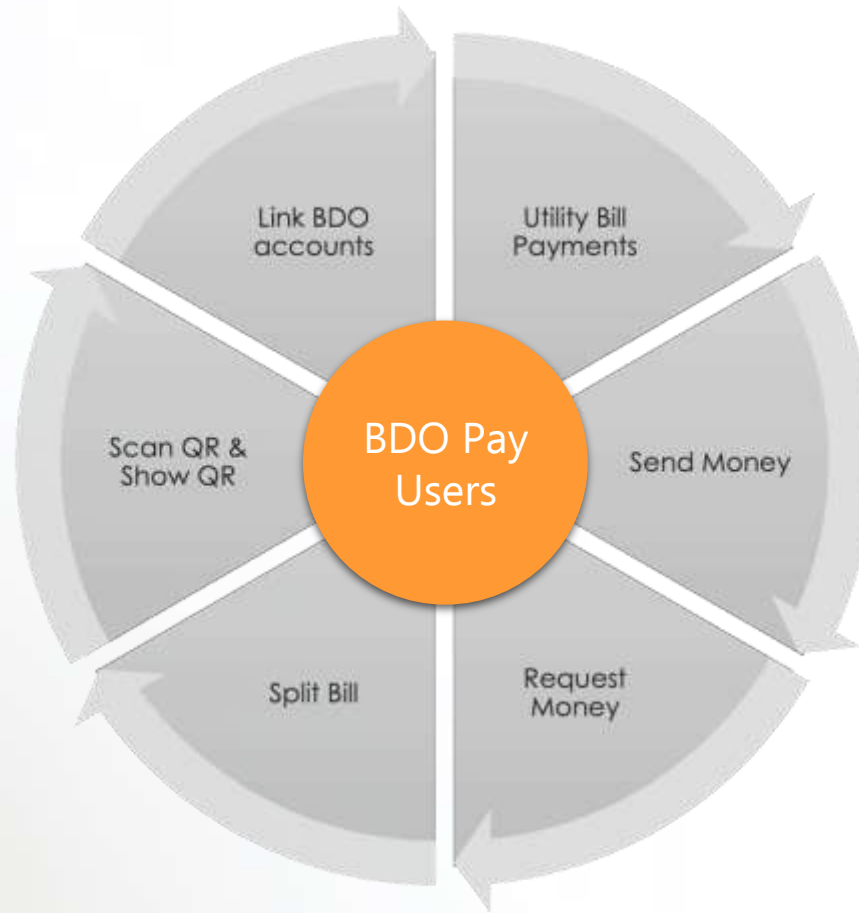
- Auto reconciled reports
- Onus Routing – No Interchange
- Batch Transaction Processing
- Instant Merchant Onboarding
- Secure Biometric login
- Settlement Reports & SFTP Transfer

Typical
Implementation
Plan

Typical Implementation Plan

Implementation timeline for prepaid use-cases such as General Purposes prepaid cards, Corporate expense prepaid cards and Gift Card is 6-8 weeks

Infrastructure setup	Development and QA	Card and Network Configuration and Setup	End-to-End Testing and Go-live
▪ Development ▪ QA ▪ UAT ▪ Production	▪ Design and Impact Analysis ▪ Product and Program Configuration ▪ Card Management System and other modules ▪ BIN Configuration ▪ Limits and Rules ▪ MCC Configuration ▪ Standard and Customized Reports ▪ Settlement	▪ Card Design and Approval ▪ White Plastic Approval and Certification ▪ Key Management	▪ Testing and QA approval ▪ Integration testing (in case of client front end application) ▪ Infosec clearance, VAPT testing ▪ UAT ▪ Production go live

Depending on project scope, responsibilities of activities will be divided between Wibmo and client

Operations & Support Org, Support Levels and Availability

Operations & Support Org

Team	Function	Support Availability
L2 Support	• Email-based • Dedicated support email id • Hot line for priority customers	24x7 Support
L3 Support	• Internal • Support Ticketing system used	On-call Support
NOC/SOC	• Internal • Support Ticketing system used	24x7 Support
Production Management	• Internal • Support Ticketing system used	24x7 Support
IT	• Internal • Support Ticketing system used	24x7 Support
Business Operations	• Email-based • Consultative engagements also supported	Regular working hours
Security & Compliance	• Monthly internal audits • Quarterly external audits • Yearly bank / compliance audits	Regular working hours

Solution Deployment Options

01 Hosted Solution

Wibmo's data centers in India

Costing considerations

- Infra cost incurred by Wibmo (both during one time setup and recurring cost per month)

02 On premise Solution

On client's data centers (depending on client's geographical location)

Typically preferred for banks

Costing considerations

- Infra cost incurred by client
- Integration and deployment cost incurred by Wibmo

03 Cloud Hosted Solution

Private cloud solutions such as Microsoft Azure, AWS etc.

Can host in cloud solution on the home country of client in case of data on soil requirements

Costing considerations

- Cloud hosting cost incurred by client

Incident Categorisation

SEVERITY - L1

⚠ Critical error that impacts the operations of the customer. Requires immediate attention

✓ Acknowledgement within 30 minutes

⏱ Issue resolved with a workaround at the earliest, but no later than 2 hours

SEVERITY - L2

⚠ Error affects functionality but not severe enough to interrupt operations

✓ Acknowledgement within 60 minutes

⏱ Issue resolved within 6 hours

SEVERITY - L3

⚠ Error has minor impact on functionality but not severe enough to interrupt operations

✓ Acknowledgement within 6 hours

⏱ Issue resolved or downgraded within 72 hours. Customer to be notified every 24 hours on the progress

SEVERITY - L4

⚠ Deficiency that is more of an inconvenience/ cosmetic

✓ Acknowledgement within 24 hours

⏱ Issue resolution to be scheduled. Customer to be notified on resolution schedule

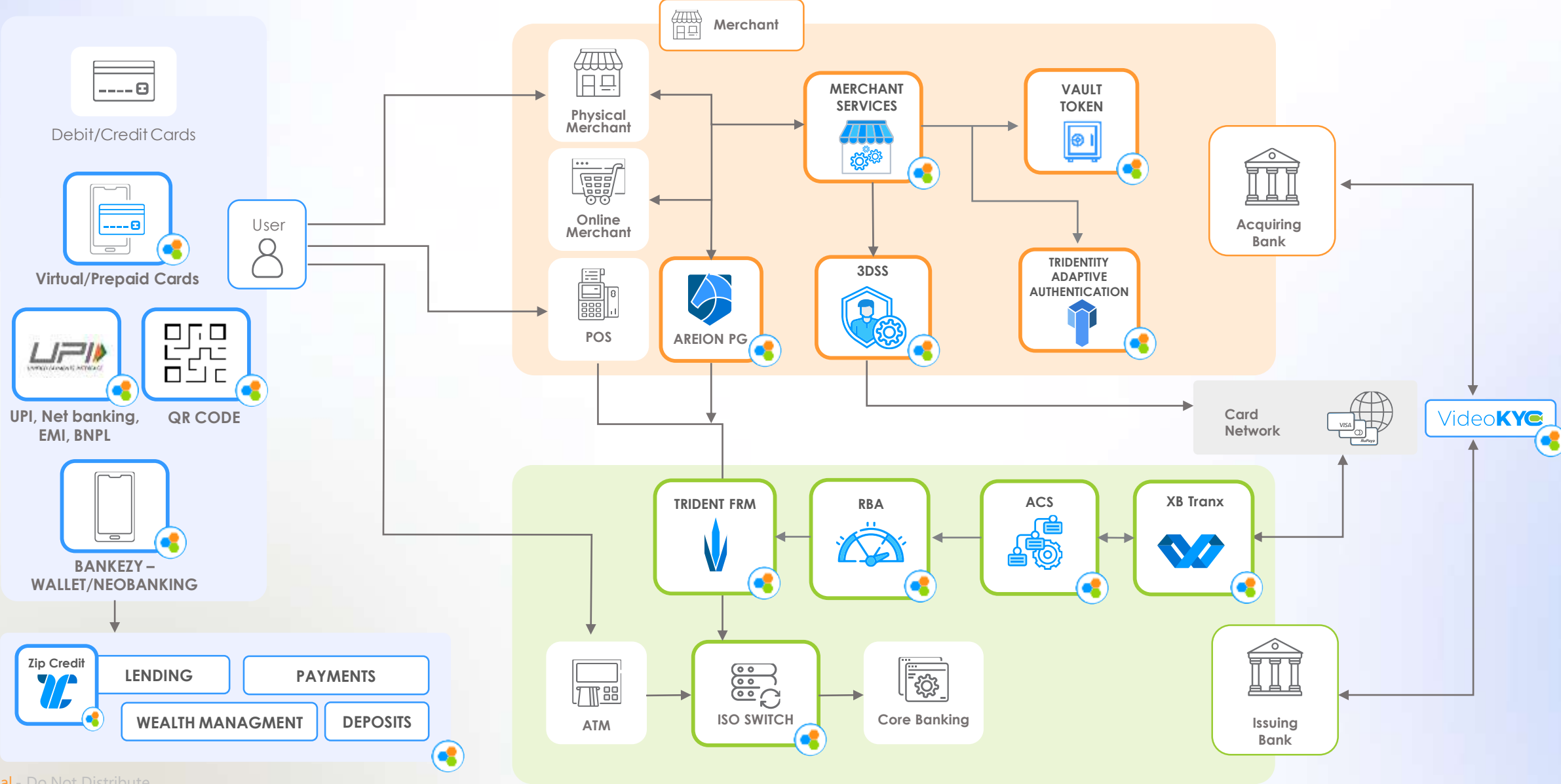wibmo
a PayU company

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www.**wibmo**.com

WIBMO
HEXA
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Full Stack Payment Ecosystem

Types of prepaid wallets based on acceptance

Parameters	Closed loop PPI wallet	Semi-closed loop PPI wallet	Open loop PPI wallet
RBI purview / regulations	Not under RBI purview/ unregulated	Full KYC (Video KYC/eKYC permitted)	OTP verified Mobile No/Email ID
Purpose of offering wallets	Purchase of goods and services from the issuing entity only	Purchase of goods and services, including financial services, at a group of merchants onboarded by the issuer (can be through PG/PA)	Used at any merchant for purchase of goods and services, including financial services
Issuing entities	Any company, no RBI approval required	Banks, non-banks who have obtained PPI license from RBI	Only banks
Cash withdrawal	Not allowed	Not allowed	Allowed, at ATMs, PoS devices, Business Correspondents
Wallet Acceptance	Only at the Merchant who has issued the wallet. Can't be used for payment or settlement for third party services	Merchants who have registered to accept this wallet either via direct contract with PPI issuer or via PG/PA For full KYC, interoperability to allow universal acceptability via UPI	Everywhere through wallet/card interoperability* Acceptance and settlement via UPI or direct merchant partnerships or via PA/PG

Prepaid Wallet Support Based on KYC Level

Semi-closed and open loop prepaid wallets

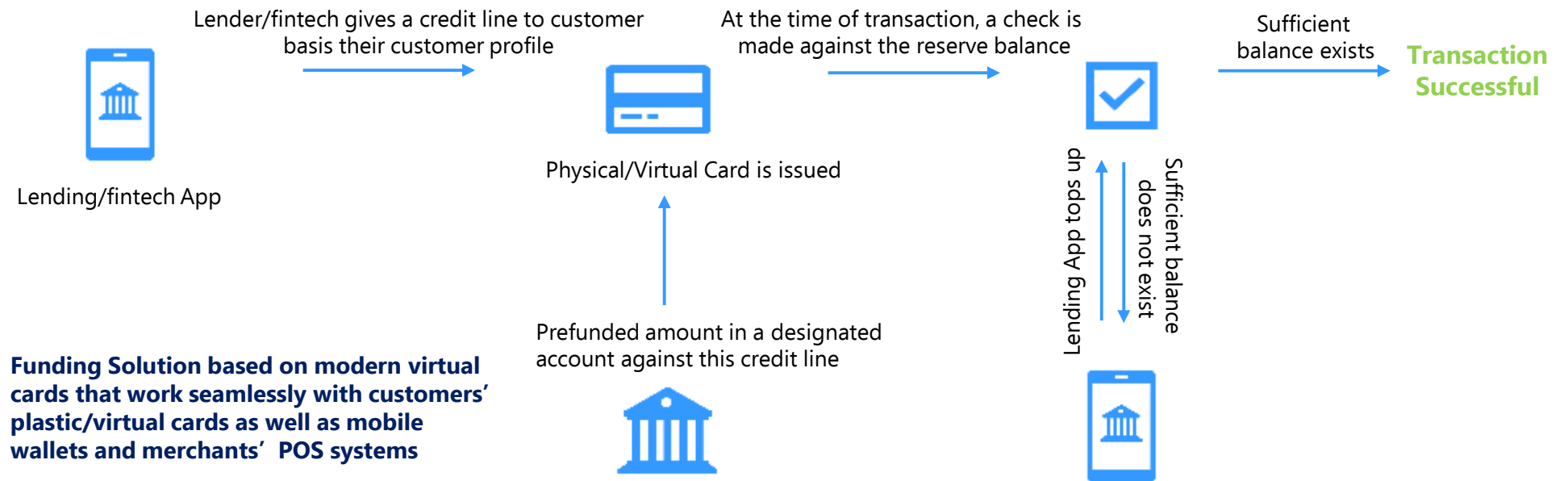| Parameters	Small PPI (Min KYC)	Full KYC PPI	Closed Loop PPI (No KYC requirement)
KYC Requirement	OTP verified Mobile No. + Self declaration of Name & OVD	Full KYC (Video KYC/eKYC permitted)	OTP verified Mobile No/Email ID
Wallet Outstanding Balance Limit	INR 10K	INR 2Lacs	No Limit
Cash Withdrawal & Fund Transfer	NO	YES	NO
Account Closure	Money back to Source A/C or upgrade to full KYC for transfer to Bank A/C	Back to PPI issuer verified Bank A/C	No transfer back to Bank A/C
Daily/Monthly/Yearly Transaction limit	<=INR 10K	No Limit	No Limit
Wallet Acceptance	At Merchants who have registered to accept this wallet	Everywhere through wallet/card interoperability*	Only at the Merchant who has issued the wallet
Wallet Loading	From Bank A/C & CC	From Bank A/C, CC & other Full-KYC PPI	From Bank A/C & CC

Implementation for BNPL with Just in Time Funding

	Implementation of BNPL program on prepaid platform for the largest B2C BNPL player in India
Scope of Work	• Utilize parent company PayU's PPI licensed prepaid solution "Citrus" (in India) to provide a zero-stored value white-labelled wallet for enabling QR code-based payments on UPI rails and Visa prepaid Cards (for open loop card payments) • Payment authorization done by the BNPL player (Wibmo can also perform authorization if required) • Wibmo platform performs Just-In-Time Funding from pre-funded program account • Wibmo provides reconciliation between Visa, BIN Sponsor (PayU in this case) and BNPL Player

Transaction Journey

Lending/fintech App

Lender/fintech gives a credit line to customer basis their customer profile

Physical/Virtual Card is issued

Prefunded amount in a designated account against this credit line

Funding Solution based on modern virtual cards that work seamlessly with customers' plastic/virtual cards as well as mobile wallets and merchants' POS systems

At the time of transaction, a check is made against the reserve balance

Lending App tops up

Sufficient balance does not exist

Sufficient balance exists

Transaction Successful

Implementation for multi-currency forex cards

Business Problem Statement

Offer multi-currency forex card plus wallet solution for outbound travelers

- Suitable for travel platforms / travel tech companies/airlines offering to cross-sell travel cards on an embedded finance platform model

- Corporates with high frequency business traveler employees can integrate multi-currency forex solution

- Banks looking to strengthen their presence in a high margin, profitable customer segment

GBP

EURO

USD

SGD

Multi-currency forex card / wallet

Transaction Use Cases

- Offline transactions for in-flight purchases via closed loop solution or QR codes.

- For in-flight payments (FnB/seat upgrades), we can enable both online and offline payments for the virtual/plastic card

- Online e-commerce transactions in a closed loop environment or open loop environment via a card network

- Face to face (proximity) payments at merchant PoS outlets, ATM withdrawals via plastic card enabled with both EMV chip and tap and pay (NFC)

- Integrate loyalty/rewards program, offer cashbacks

High Level Standard Implementation Plan -HEXA
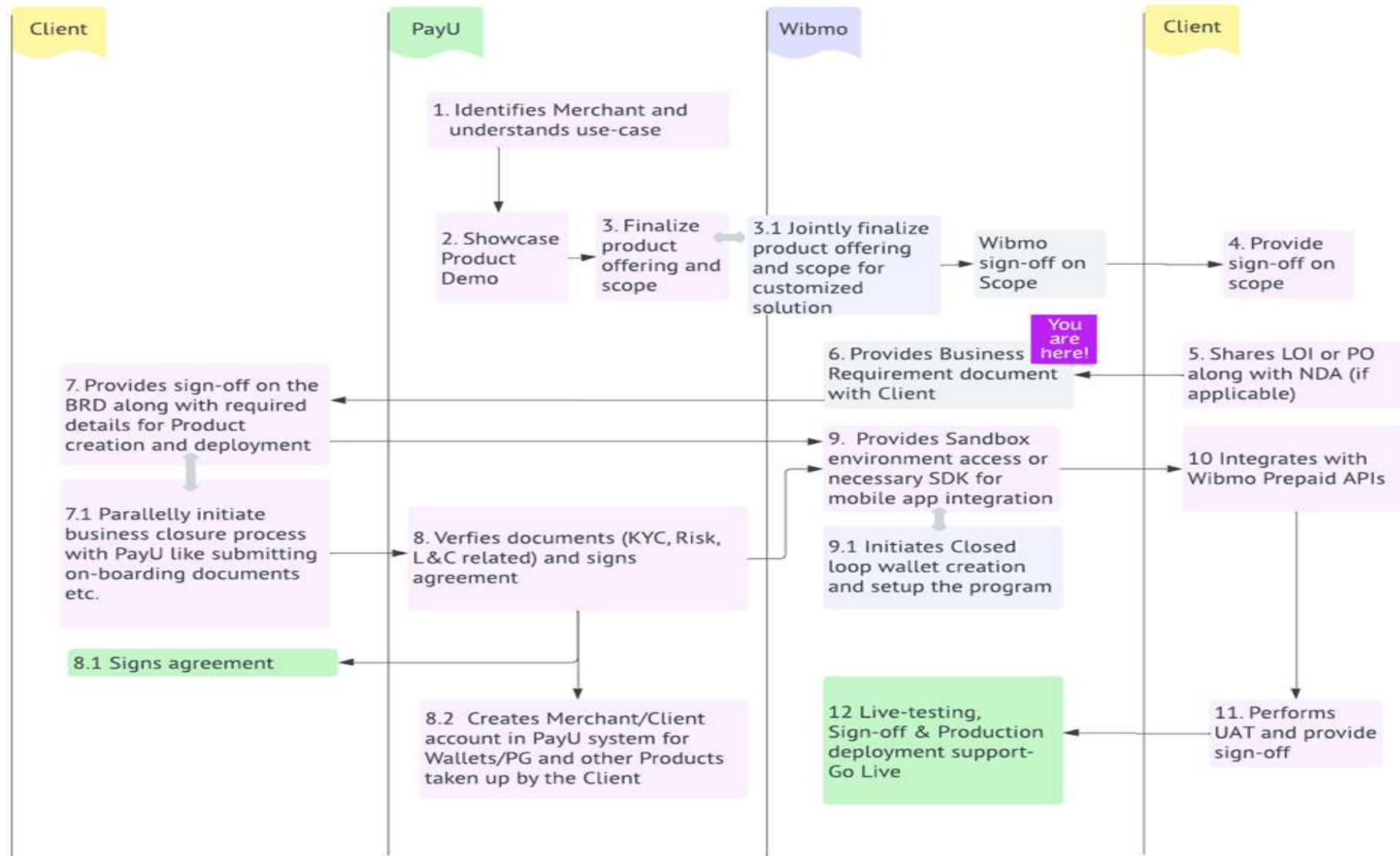
Hexa Scale and Efficiency

Issuance volume

Uptime of 99.5%

Bundled ACS, RBA, Trident FRM

Micro-services driven & RESTful Architecture

Multiple implementation models

Secure and compliant

High speed

High throughput

Secure, frictionless authorization

Low latency

Highly scalable

Plug & play modules