PAYSYS

Open Digital Acquiring
The Future of Unified Merchant Acquiring

A single, enterprise-grade platform unifying Global Card Schemes and Instant Account-Based Payments.

A Unified Ecosystem for Modern Merchant Acquiring

Open Digital Acquiring is an end-to-end platform enabling Banks and PSPs to manage the full merchant lifecycle across both traditional card rails and next-gen instant payment switches.

Global Schemes & Local IPS

Paysys Open Digital Acquiring Platform

Merchants

Unified Acceptance

Seamless processing of Global Schemes (Visa, MasterCard, UnionPay) and ISO 20022 Account-Based Payments on a single rail.

Market Proven

Active production deployments across West & East Africa, The Middle East (UAE), and South Asia (Pakistan).

Enterprise Security

Fully certified infrastructure compliant with PCI DSS and ISO 27001 standards, securing every transaction from dip to settlement.

Certified Global Card Acquiring Infrastructure

Production-ready gateways for Card Present (CP) and Card Not Present (CNP) transactions.
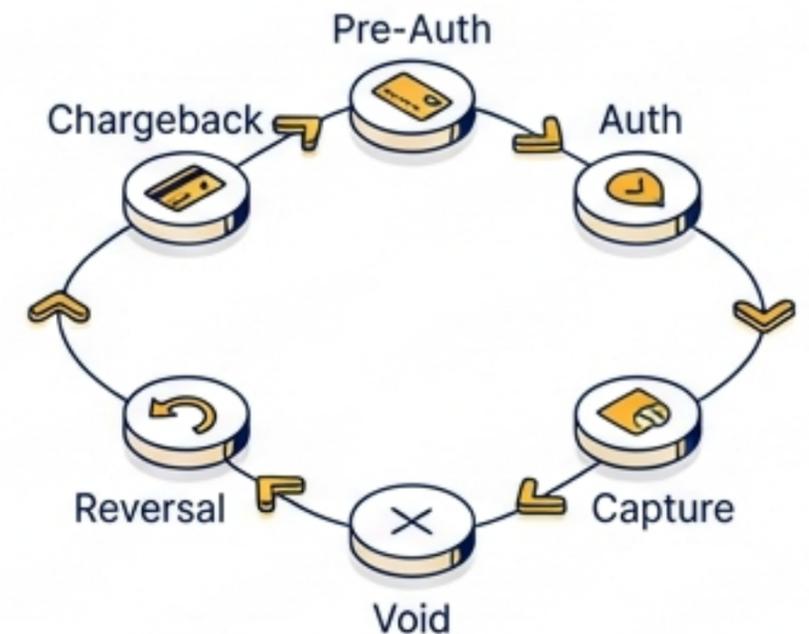
Supported Transaction Flows

- **Card Present:** Physical POS (Dip & Contactless), SoftPOS (Tap-to-Phone), Mobile POS

- **Online/CNP:** Full eCommerce gateway support

Lifecycle Handling

- Pre-Auth, Auth, Capture

- Void, Reversal, Chargeback Management

Pre-Auth → Auth → Capture → Void → Reversal → Chargeback

Universal Terminal Support & Transaction Lifecycle
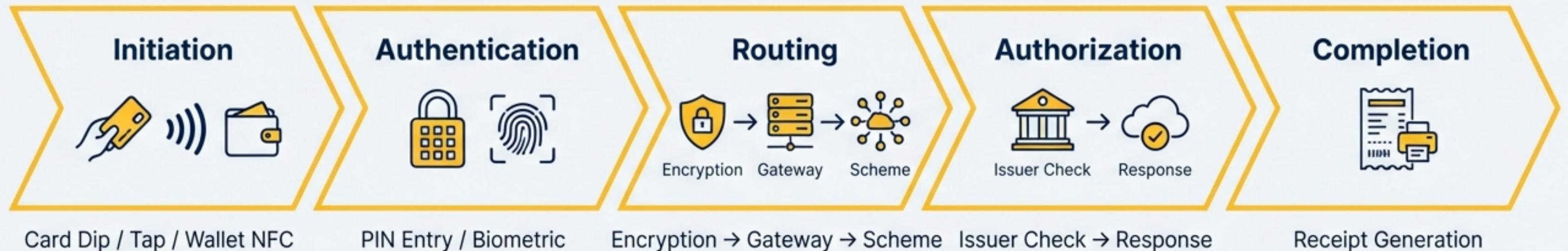
Terminal Diversity

Legacy/Smart POS (Linux/Android)

SoftPOS (Tap-to-Phone)

mPOS (Dongle/Bluetooth)

The Transaction Journey

Initiation	Authentication	Routing	Authorization	Completion
		Encryption → Gateway → Scheme	Issuer Check → Response	
Card Dip / Tap / Wallet NFC	PIN Entry / Biometric	Encryption → Gateway → Scheme	Issuer Check → Response	Receipt Generation

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Next-Gen Account-Based & Instant Payments

Native integration with National Payment Switches via ISO 20022 standards.

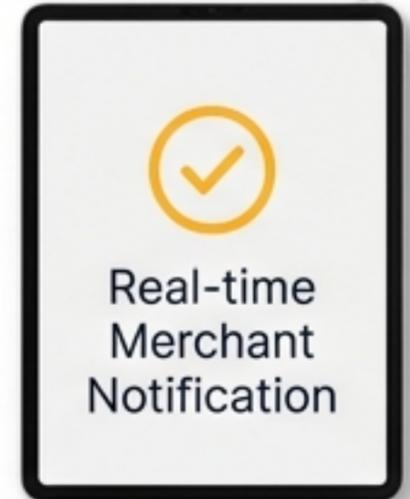## Live National Integrations

RAAST (Pakistan)

EthSwitch SVIPS (Ethiopia)

BCEAO (Togo/West Africa)

Instant Payment Lifecycle

Instant Clearing via IPS (ISO 20022)

Real-time Merchant Notification

Merchant Initiated

- Request to Pay Now (Real-time collection)
- Request to Pay Later (Invoicing/Recurring)

Customer Initiated

- Scan & Pay (Static/Dynamic QR)
- Pay via Account
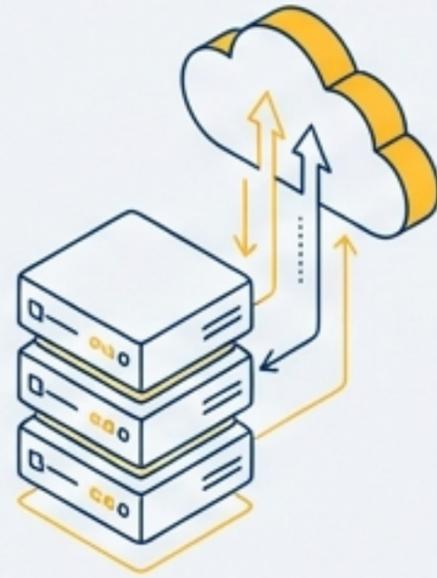- Pay via ALIAS/Proxy

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Unified Experience: Instant Payments on Conventional POS

Bridging the gap between legacy card terminals and account-based instant payments.

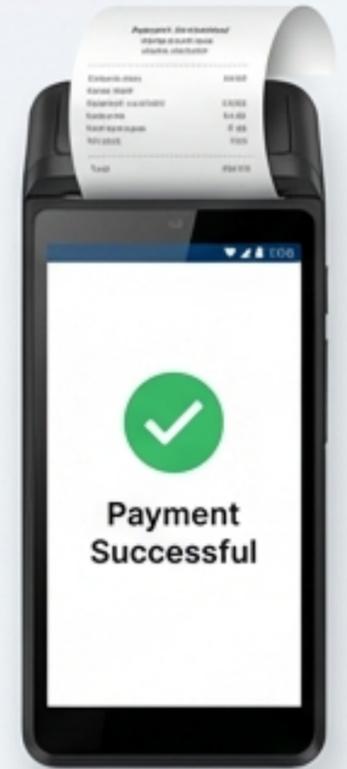| Step 1	Step 2	Step 3	Step 4	Step 5
Merchant Input	**Request Generation**	**Visual Output**	**Customer Action**	**Confirmation**
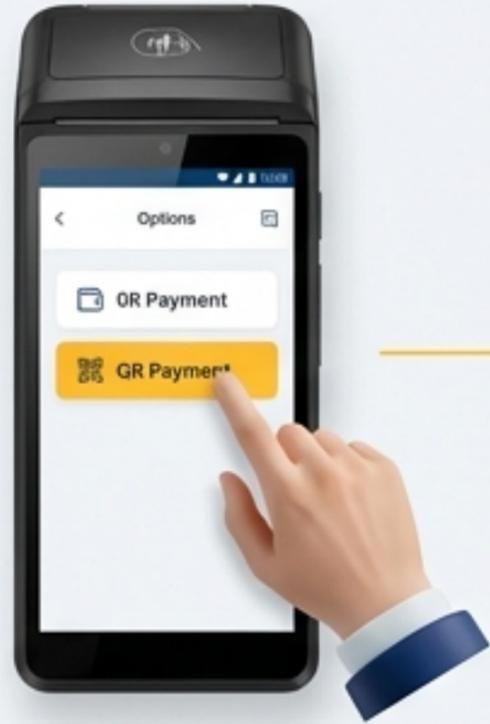
Selects 'QR Payment' & Enters Amount

POS calls API -> One-Time Dynamic QR generated.

POS displays QR with branding (e.g., Raast).

Customer scans & authorizes via Mobile Banking App.
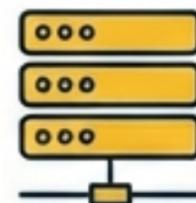
Real-time success notification & Receipt Print.

Digital-First Merchant Experience

Frictionless onboarding and management via Web Portal and Mobile App.

Digital Onboarding

- Configurable KYC/AML verification
- Bulk Onboarding for Chains
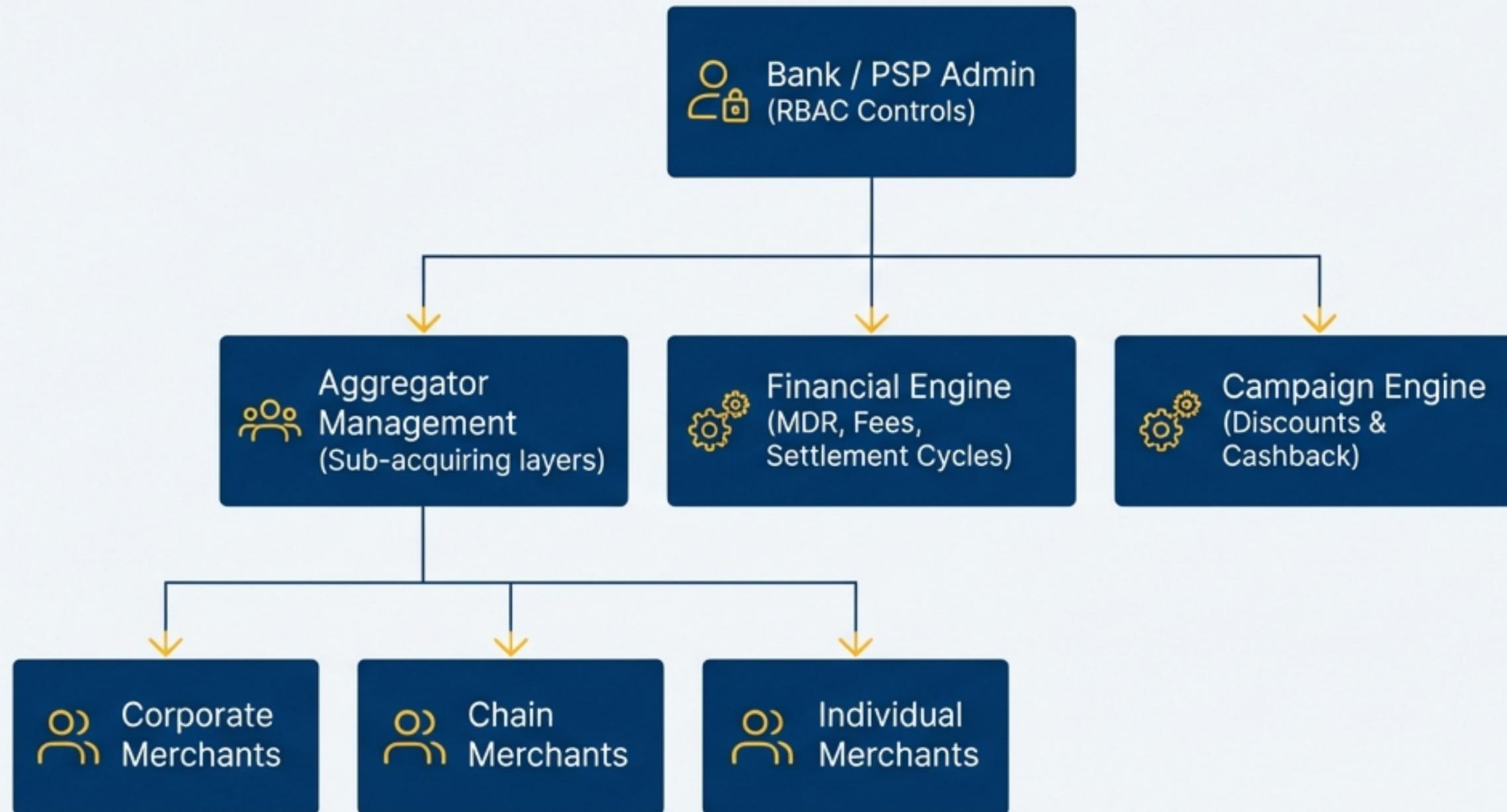- Biometric & 2FA secure login

Self-Service Tools

- QR Management: Static & Dynamic EMVCo-compliant codes
- Operations: Transaction history, Dispute management, Refunds
- Terminal Management: Add/manage POS & SoftPOS
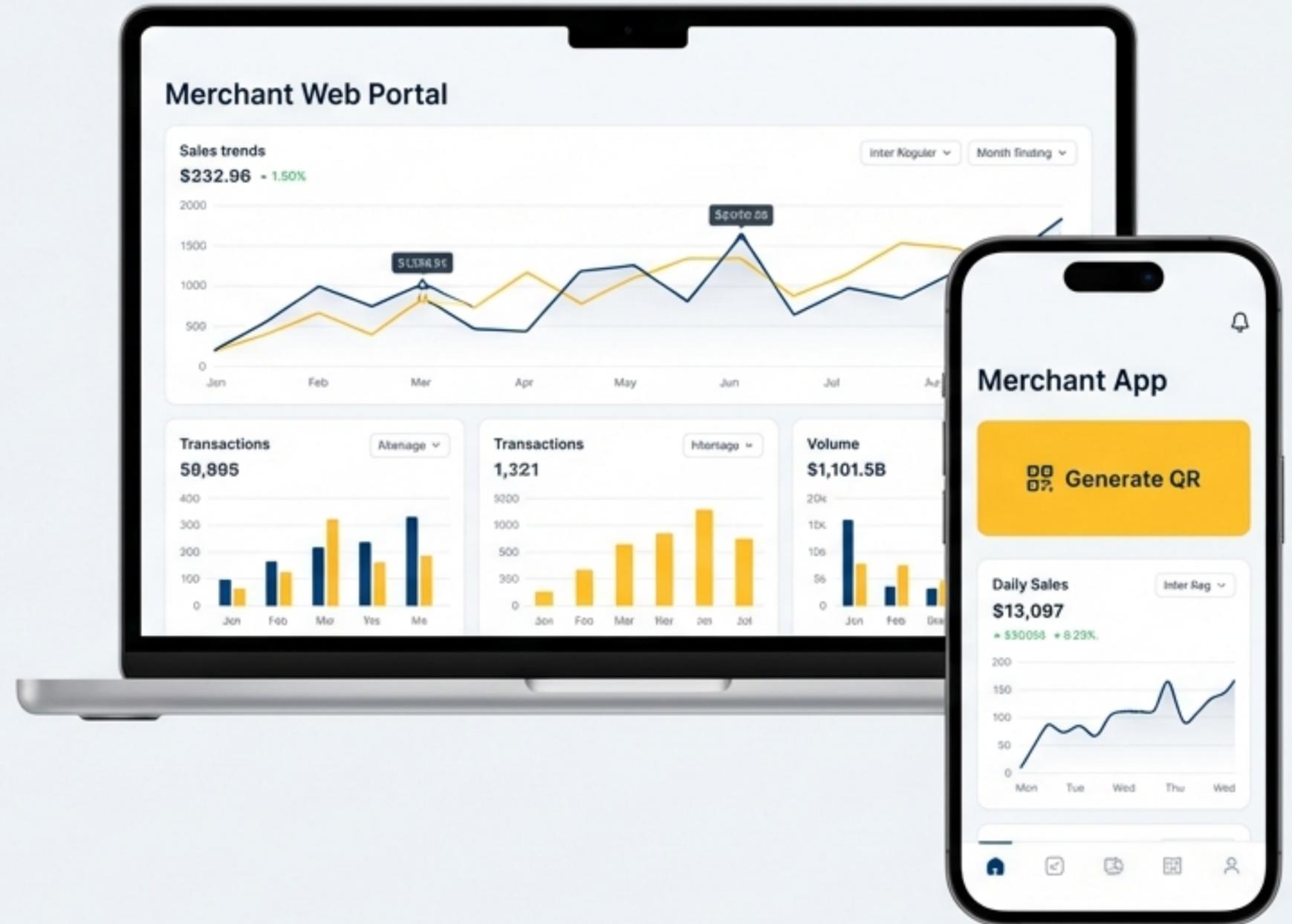
Comprehensive Enterprise Control

Complete lifecycle management for Aggregators, Merchants, and Financials.

Bank / PSP Admin (RBAC Controls)

- **Aggregator Management** (Sub-acquiring layers)
- **Financial Engine** (MDR, Fees, Settlement Cycles)
- **Campaign Engine** (Discounts & Cashback)

Under Aggregator Management:
- Corporate Merchants
- Chain Merchants
- Individual Merchants

Financial Configuration

- Configurable MDR (Merchant Discount Rate) & Flat Fees
- Flexible Settlement: Instant, Hourly, Daily, or Deferred
- Till Management for granular tracking

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Beyond Processing: Growth & Recovery Modules

Enhancing value for merchants with dedicated growth, protection, and trust modules.

Campaign Management (Growth)

- **Features:** Configurable Discounts & Cashback programs.
- **Flexibility:** Cost-bearing models (Split between Merchant/Bank/Aggregator).
- **Trigger:** BIN-based or Time-based offers.

Recovery Module (Protection)

- **Features:** Automated recording of dues.
- **Action:** Deferred settlement deduction for negative balances.
- **Use Case:** Instant recovery for previous chargebacks or subscription failures.

Dispute Management (Trust)

- **Features:** End-to-end Chargeback lifecycle (Log, View, Contest, Accept).
- **Interface:** Merchant Portal integration for evidence submission.

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Architecture, Observability & Uptime

Modular microservices architecture designed for independent scalability and real-time visibility.

Observability & Monitoring

Grafana **Prometheus**

Real-time Dashboards & Health Checks

Integration & API Gateway

Kong **NGINX** **OneSignal**

Kong & NGINX Secure API Gateway, Push Notifications

Core Microservices

Scheme Orchestration

Compliance Engine

Settlement

Merchant Core
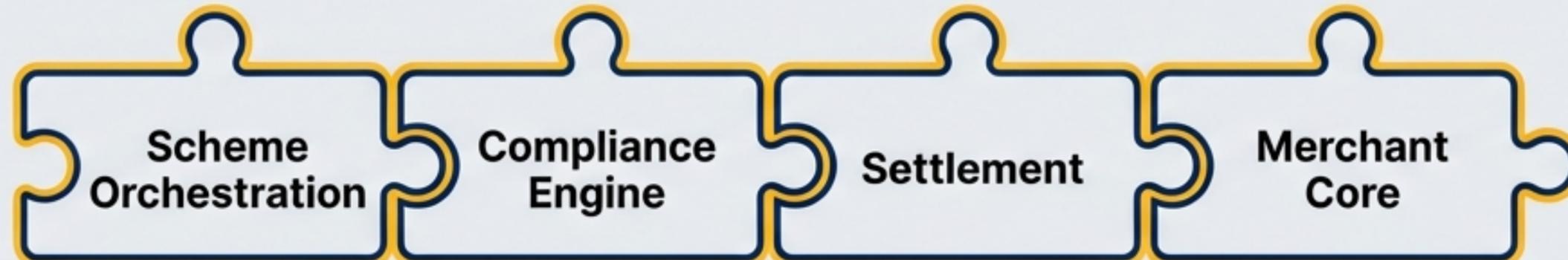
Integration Hub

Central orchestration for Schemes, Compliance, and Notifications.

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OpenConnect: The Central Integration Hub

A unified orchestration layer normalizing disparate external systems.

Scheme Connectivity

VISA · mastercard · UnionPay · PayPak

Instant Switching

Raast · ETHSWITCH

Integration Hub Core

Compliance & Identity

NADRA / National ID · AML Screening · Account Verification

Notification Services

OneSignal · SMS / Email / IoT Soundbox

The Integration Hub acts as the central translator, managing API calls between the core banking system and external third-party vendors.

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Uncompromising Security & Compliance

Adhering to the strictest global standards for data protection and financial integrity.

Certifications

PCI DSS Compliant
Card Data Security

ISO 27001 Certified
InfoSec Management

Data Protection Protocols

- ✓ • Data at Rest: AES-256 Encryption
- ✓ • Data in Transit: TLS / HTTPS
- ✓ • Access Control: OAuth 2.0 & MFA/2FA
- ✓ • Auditability: Comprehensive Logs for API & User Actions

Ready to Deploy. Ready to Scale.

UNIFIED
Visa, MasterCard & ISO 20022 Instant Payments.

PROVEN
Live across Africa, Middle East & South Asia.

SECURE
PCI DSS & ISO 27001 Certified.

Contact the Paysys Labs Enterprise Team for a technical deep dive or demo.

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