PAYKIP

Product Architecture & Operational Walkthrough

Internal Team Briefing: SafePay Escrow, Anti-Fraud Engine, Clean Banking & Marketplace.



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Exonara Technologies Ltd | Product & Engineering Team | Q4 2026 / 2027 Release

PRODUCT OVERVIEW

What Is PayKip? The Dual-Core Financial Engine

Bridging fast everyday retail banking with safe, scam-proof social commerce

Core 1: Clean Everyday Banking

Frictionless, Lightning-Fast Financial Hub

- Zero-distraction digital banking: Transfers, Bills, Airtime,
- 100% ad-free & popup-free: No merchant promotions on banking
- Instant NIBSS/NIP interbank rails powered by live Paystack w
- Virtual NGN & USD cards for cross-border subscriptions & onl

Core 2: SafePay Commerce & Escrow

The Trust Rail for Social Sellers & Shoppers

- Automated SafePay Escrow Link-in-Bio for Instagram, TikTok,
- 4-Digit Delivery Verification PIN: Funds locked until order
- In-App Verified Marketplace (/marketplace) for verified sell
- Anti-Fake Alert Voice Soundbox: Phone speaks incoming paymen

CORE MECHANISM

How SafePay Escrow Works: 4-Digit Handover Protocol

The exact sequence of events during a purchase transaction

Phase 1: Escrow Deposit

Buyer clicks SafePay link. Funds lock in platform escrow ledger. Merchant notified.

Phase 2: PIN Generated

PayKip generates unique 4-digit PIN for buyer. Merchant dispatches goods.

Phase 3: Inspection

Rider arrives. Buyer opens and verifies goods match order before giving PIN.

Phase 4: Instant Payout

Buyer gives rider PIN. Rider inputs PIN. Payout instantly credits vendor wallet.

RISK ARCHITECTURE

The Reverse Return Protocol: Protecting Vendors on Returns

Preventing buyer fraud, empty-box swaps, and damaged returns

Return Initiation & Escrow Freeze

The Buyer's Return Flow

- Buyer rejects parcel or requests return within 24h inspectio
- Status shifts to return_in_transit: Funds remain 100% frozen
- Zero automated refund sent to buyer yet (prevents theft/swap
- Dispatch rider transports parcel back to merchant's physical

Vendor Return PIN & Dispute Shield

The Merchant's Inspection Flow

- Merchant receives package and opens to inspect for damage/sw
- If in original condition: Merchant enters secret 4-digit Ret
- System releases refund to buyer immediately upon merchant PI
- If damaged or swapped: Merchant clicks Dispute, freezing buy

MERCHANT INNOVATION

Software Soundbox: Killing Fake Transfer Alerts

Turning any smartphone into an audible payment verification hardware terminal

The Problem We Solved

- Scammers use altered receipts and spoofed SMS alerts in busy
- Busy vendors release goods before verifying personal bank ba
- Losses exceed ■100,000 per store annually across Nigerian so
- Physical soundbox hardware (OPay/Moniepoint) costs ■35,000+

PayKip's Software Voice Engine

- Integrated Web-Audio & Push Soundbox: Speaks loudly on settl
- 'PayKip has received ■35,000 from Ngozi!' announces via phon
- Zero hardware purchase required: Works directly on merchant'
- 100% immune to fake receipts: Sound triggers ONLY upon verif

SECURITY ARCHITECTURE

Digital Tamper-Proof Packaging Seal

Eliminating 'Empty Box' and 'What I Ordered vs What I Got' disputes

Pre-Dispatch Seal

Vendor logs 2 photos of sealed packa
ge and item state. System logs times
tamp and SHA-256 tamper hash.

Rider Verification

Rider scans packaging QR code to ver
ify box is intact before leaving sto
re. Liability shifts to logistics.

Dispute Vault

If buyer falsely claims 'empty box a
rrived', admin compares unboxing vid
eo with logged seal photos.

COMMERCE DISCOVERY

The Verified Marketplace (/marketplace)

How verified vendors sell to shoppers with zero spam on banking screens

Shopper Experience

- Browse Verified Stores & Trending Products across fashion, h
- Hero Spotlight Sponsored Carousel for featured community ven
- 1-Tap SafePay Checkout: Shoppers buy securely without sharin
- Real-time order tracker with generated 4-digit verification

Strict UX Segregation Rule

- Core banking views (Dashboard, Transfers, Cards) have ZERO a
- Marketplace lives in its own dedicated tab (/marketplace).
- Vendors get commercial visibility without irritating everyda
- Shoppers visit marketplace intentionally when looking to buy

MONETIZATION & SAFETY

Merchant Ads & 4-Tier Anti-Scam Clearance Gate

Ensuring only legitimate, vetted businesses can advertise inside PayKip

The 4-Tier Anti-Scam Gate

- Tier 1: BVN & Identity Verification (NIN / Government ID lin
- Tier 2: Business Registration (CAC verification or verified
- Tier 3: TrustPassport Score >= 70 (Based on successful escro
- Tier 4: Dispute Rate < 2.0% (Zero ongoing fraud investigatio
- Unverified merchants are HARD-LOCKED from purchasing promoti

Self-Serve Ad Packages & $KIP Discount

- Package 1: Verified Storefront Listing (■15,000 / mo).
- Package 2: Category Sponsored Spotlight (■35,000 / mo).
- Package 3: Hero Carousel & Push Feature (■75,000 / mo).
- 25% Discount with $KIP: Paying in $KIP saves 25%, creating o

ENGINEERING RIGOR

Technical Stack & Double-Entry Accounting

Ensuring zero-drift financial integrity across all transactions

Full-Stack Technical Stack

- Next.js App Router (React 18 & TypeScript) for web & merchan
- Capacitor Runtime (com.exonara.paykip) producing native Andr
- Paystack Live Webhooks for automated NGN funding settlement.
- Tailwind & Custom CSS design tokens with sleek dark aestheti
- 172 automated unit tests passing across 32 test suites.

Double-Entry Ledger Architecture

- Every transaction balances: Assets = Liabilities + Equity.
- Escrow deposits credit Platform SafePay Pool and debit Buyer
- Release operations balance Merchant Settlement and Platform
- Return disputes lock disputed amounts in separate reconcilia

TEAM EXECUTION

Next Milestones & Team Action Plan

The immediate steps to launch PayKip into production

ENGINEERING

Mobile App Release

Build and sign the Android Release B
undle (.aab). Submit to Google Play
Console under Exonara Technologies Ltd

DEVOPS & SECURITY

Paystack Live Keys

Paste live Paystack keys into .env.l
ocal. Test live ■100 escrow deposit
and settlement webhook verification.

GROWTH & MERCHANT SUCCESS

50 Pioneer Vendors

Deploy 1-click WhatsApp outreach & M
eta Ad campaign to onboard 50 verifi
ed stores for 30 days of 0% fees.

EXONARA TECHNOLOGIES LTD — LEADERSHIP & ACCOUNTABILITY

Precious Oladapo (Founder & CEO) | Engineering & Product Team | Lagos, Nigeria | PayKip V1.0 Ready