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TECHNICAL PUBLICATIONS SUITE

• OFFICIAL PARTNER SPECIFICATION MANUAL · A4 RELEASE

Complete Cashier POS Terminal & EDC Operations Handbook

Full operations handbook for front-desk retail cashiers: Sunmi & iMin smart EDC terminals, fiat keypad billing, token & chain selection, dynamic QR, shift history, and thermal slip SOPs.

DOCUMENT CONTROL MATRIX

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VERSION & STATUS	**RELEASE DATE & LANGUAGE**
v2.4 · Production Release	Oktober 2026 · EN

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Zero Floating-Point Financial Standard

DOCUMENT STRUCTURE

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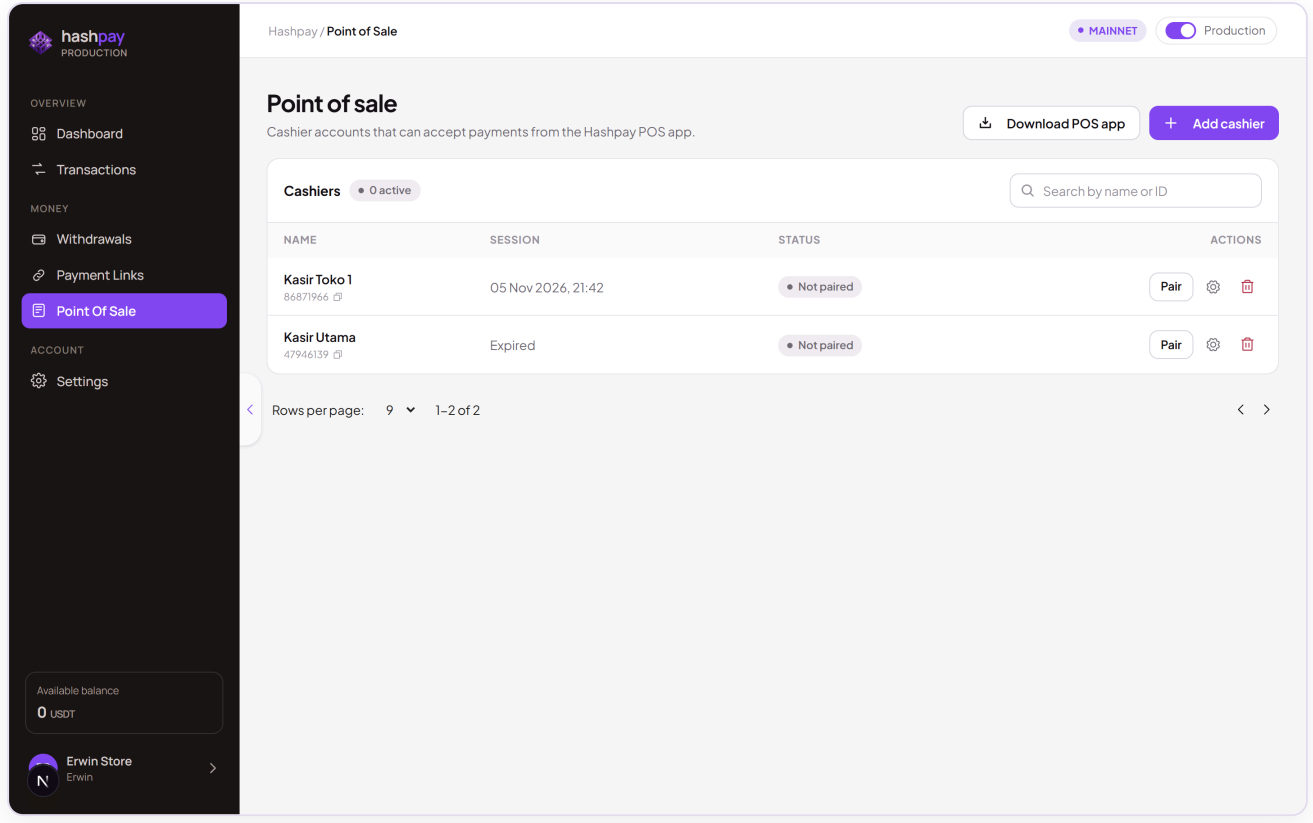
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CHAPTER 1.0 · TERMINAL SETUP

Cashier Guide Overview

> *A comprehensive operational user guide for retail cashiers, baristas, and front-desk staff operating the Hashpay POS application on Android smart EDC terminals or mobile devices.*



Cashier Station Management in Web Dashboard

Introduction to Hashpay POS

The **Hashpay POS** application turns any Android smart EDC terminal, smartphone, or tablet into a secure point-of-sale terminal capable of accepting stablecoin payments (USDT and USDC) across multiple high-speed blockchain networks.

As a store cashier, you don't need to be a blockchain expert to use Hashpay. You input bills in Rupiah (IDR) just like a regular cash register, and the terminal automatically handles real-time price conversions, dynamic QR generation, on-chain confirmation detection, and thermal paper receipt printing.

Supported hardware & built-in thermal printers

HARDWARE CATEGORY	SUPPORTED DEVICE BRANDS	THERMAL PRINTER SUPPORT	IDEAL STORE SETUP
Smart EDC Terminals	Sunmi (V2, V2 Pro, V2s, T2 Mini), iMin (Swift, D1), Centerm	Built-in 58mm thermal printer (Hardware direct driver)	Busy checkout counters, cafes, restaurants, and retail boutiques.
Android Smartphones	Any smartphone running Android 8.0 or newer	External Bluetooth thermal printer or paperless digital receipts	Food trucks, pop-up events, courier delivery, and mobile staff.
Android Tablets	Samsung Galaxy Tab, Lenovo Tab, Xiaomi Pad (8–12 inch)	Bluetooth or LAN thermal printer	Front-desk reception counters, boutique showrooms, hotel concierge desks.

Cashier security & permission boundaries

To protect store owners and give staff peace of mind, Hashpay POS terminals operate in strict cashier isolation. Here is an overview of what the terminal can and cannot do:

ACTION / CAPABILITY	CASHIER POS TERMINAL	MERCHANT OWNER WEB PORTAL
Enter Rupiah bill & compute crypto total	Allowed (Yes)	Allowed (Yes)
Display dynamic payment QR code to customer	Allowed (Yes)	Allowed (Yes)
Print thermal QR slips & customer receipts	Allowed (Yes)	Allowed (Yes)
View cashier shift transaction history & reprint slips	Allowed (Yes)	Allowed (Yes)
Withdraw store funds or disburse to bank accounts	Strictly Forbidden (No)	Allowed (Yes)
View company bank account numbers or financial reports	Strictly Forbidden (No)	Allowed (Yes)
Access private API keys, webhooks, or passwords	Strictly Forbidden (No)	Allowed (Yes)
Change store MDR fees, tax rates, or pricing	Strictly Forbidden (No)	Allowed (Yes)

🔒 **CASHIER SAFETY GUARANTEE**

Cashier staff have zero access to the merchant's financial vault. Even if a physical EDC terminal is stolen, damaged, or lost from the counter, the store's funds, bank accounts, and settlement proceeds remain 100% secure.

The three bottom navigation tabs

The POS application features three primary workspaces accessible from the bottom bar at any time:

- **History (Riwayat)** — Inspect previous shift transactions, search by Order ID, filter by payment status, and reprint customer receipts.
- **Transaction (Transaksi / Keypad)** — The default sales workspace for ringing up customer orders and generating live payment QR codes.
- **Profile (Profil)** — View cashier shift duration, merchant verification status, switch default currencies (IDR / USD) or language (ID / EN), and log out cleanly.

Two terminal environments: Production vs. Sandbox

Hashpay POS operates in two clearly distinct operating modes to avoid confusion between live store sales and staff training:

ENVIRONMENT MODE	COLOR ACCENT	BLOCKCHAIN NETWORK	OPERATIONAL PURPOSE
Production	Brand Purple Header	Live Blockchain Mainnets (BNB Chain, Tron, Ethereum, Solana)	Real customer transactions, live sales revenue, and official customer receipts.
Sandbox	Bright Orange Header	Testnet Blockchains (Sepolia, BSC Testnet)	Training new cashiers, practice checkout runs, and printer tests with zero real money.

Standard 5-step customer checkout flow

1. **Input Bill Amount** — Type the customer's total bill in Rupiah (IDR) on the keypad. The terminal calculates the exact crypto equivalent in real time.
2. **Confirm Token & Network** — Ask the customer which stablecoin and network they prefer (e.g. *USDT on BNB Smart Chain*).
3. **Select Customer Wallet** — Choose MetaMask, Trust Wallet, Phantom, or WalletConnect.
4. **Show Dynamic QR Code** — Present the terminal screen to the customer or tap **Print** to hand them a printed paper QR slip.
5. **Automatic Confirmation & Receipt** — Hashpay detects the on-chain transfer within 2–5 seconds, automatically turns green with a checkmark, and prints the official payment receipt immediately.

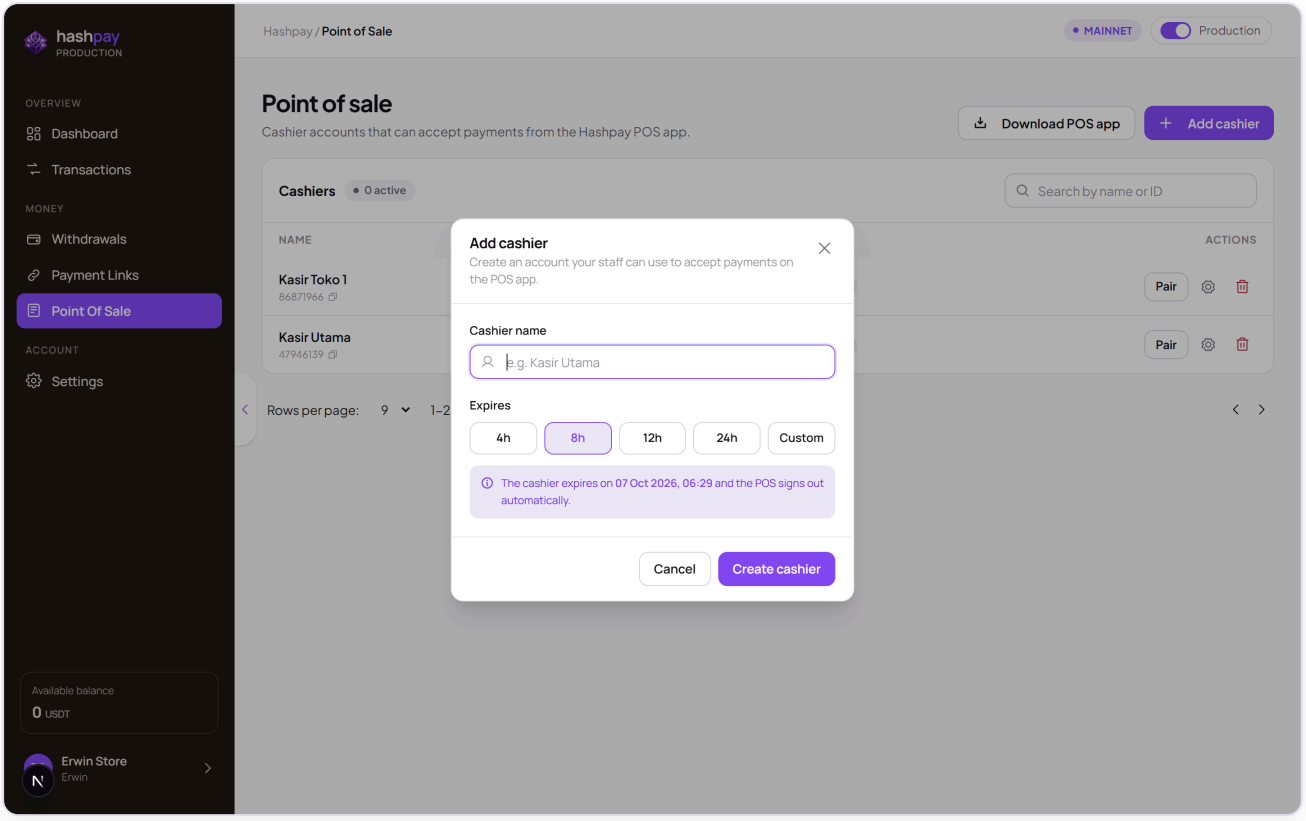
> 💡 **INITIAL TERMINAL SETUP**
>
> Before pairing an EDC device, make sure the store owner or manager has created a cashier station in the Web Merchant Dashboard. See Merchant Guide → Point of Sale (POS) for instructions.

CHAPTER 2.0 · TERMINAL SETUP

Cashier Stations & Terminal Pairing

> *Configure isolated cashier station profiles in your web dashboard, choose shift durations, and pair Android smart EDC terminals using secure time-limited QR codes or 8-character manual tokens.*

Why create isolated cashier stations?



Cashier Creation & Shift Session Modal in Web Dashboard

In retail stores, cafes, and restaurants, multiple staff members share or rotate shifts across different cash registers. Creating distinct cashier profiles provides essential operational benefits:

- **Individual Shift Reconciliation** — Separate sales totals and cash balancing per counter (e.g., '*Kasir Utama 1*', '*Bar Lantai 2*', or '*Takeaway Counter*').
- **Audit Transparency** — Every transaction is tagged with the specific Cashier ID and terminal timestamp, eliminating disputes during end-of-day bookkeeping.
- **Zero Financial Exposure** — Terminals operate under restricted cashier credentials with zero access to merchant balances or bank accounts.

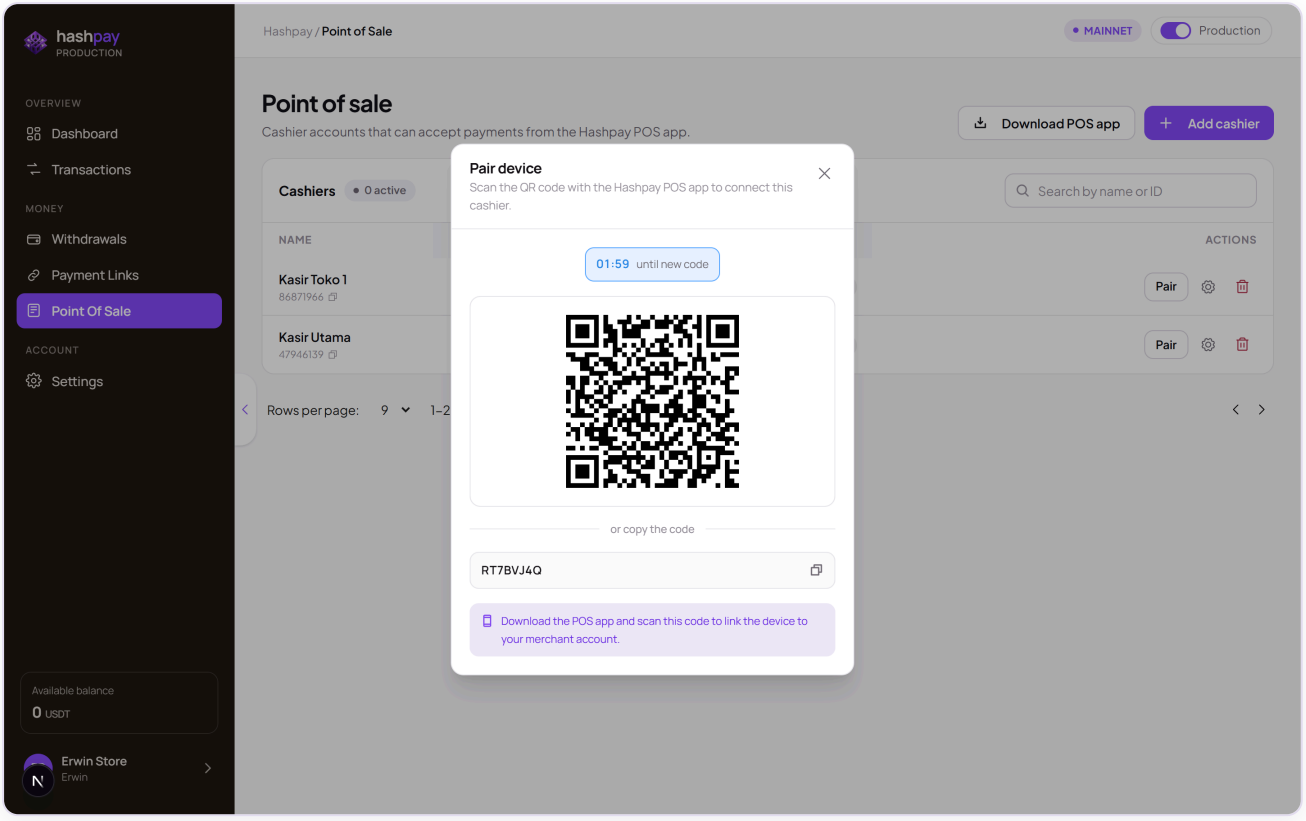
Creating a cashier & selecting shift duration

1. **Open Point of Sale Menu** — From the merchant web dashboard, navigate to **Point of Sale** (`/point-of-sale`).
2. **Click '+ Add cashier'** — Open the creation modal.

3. **Enter Station Name** — Assign an easily identifiable label matching your physical register location or shift schedule.
4. **Select Shift Duration Preset** — Choose **4 hours**, **8 hours**, **12 hours**, **24 hours**, or enter a **Custom duration** (e.g., 7 days or 30 days for permanent dedicated counter terminals).
5. **Create Cashier** — Click **Create cashier**. The pairing credentials modal will launch immediately.

> ⭐ **RECOMMENDED SHIFT LENGTH**
>
> For standard daily retail staff rosters, we recommend setting an **8-hour** or **12-hour** shift. When the duration concludes, the app automatically prompts the cashier to close shift and print the transaction recap, ensuring clean employee handovers.

Pairing credentials (QR code & 8-character token)



Pairing QR and 8-Character Single-Use Pairing Code

The pairing modal displays two flexible methods to connect an Android EDC terminal or phone to the assigned station:

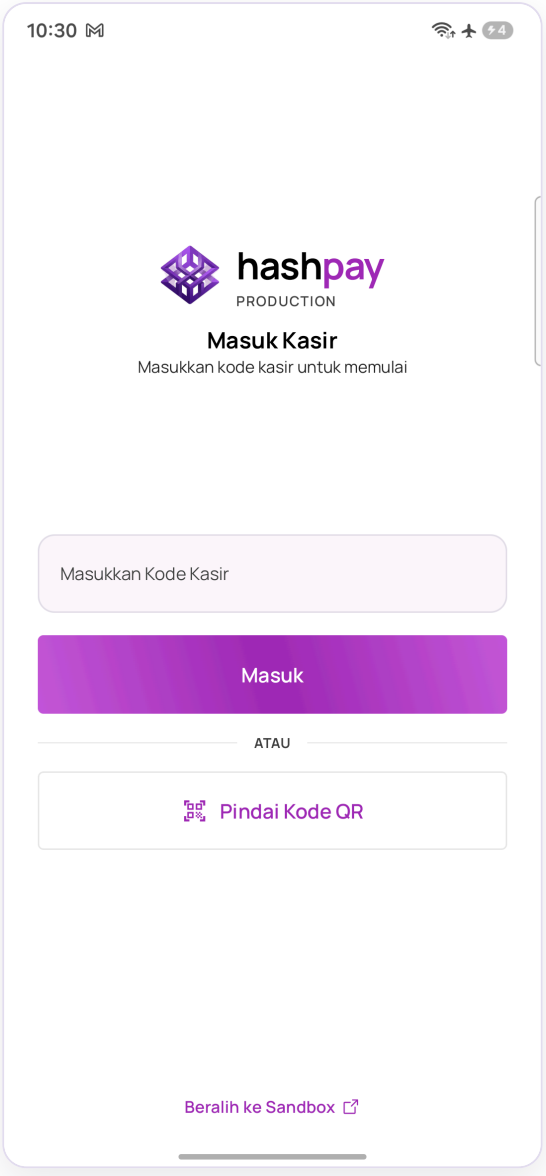
- **Scannable QR Code** — Fastest method (5 seconds). Point the POS camera at the screen to authenticate instantly.
- **8-Character Manual Code** — Uppercase alphanumeric code (e.g., `OYA8DZCT`) designed for remote setup or terminals without autofocus cameras.
- **120-Second (2-Minute) Countdown TTL** — The pairing token expires after 120 seconds to prevent pairing hijack attacks. If expired, simply click **Refresh Code** to generate a new one.
- **Single-Use Security Guarantee** — Once successfully paired, the token self-destructs and cannot be reused on unauthorized secondary devices.

CHAPTER 3.0 · TERMINAL SETUP

Terminal Login & Activation

> *Activate your Android POS terminal in Production mode using instant QR scanning or 8-character manual code authentication.*

The POS login screen



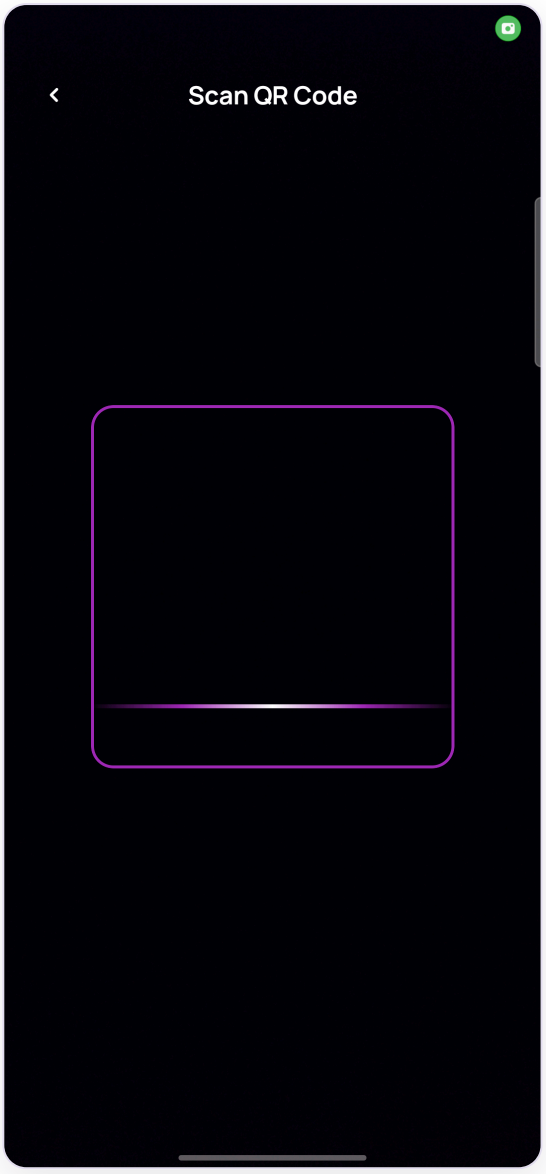
Hashpay POS Production Login Screen

When opening the **Hashpay POS** app on your Android smart EDC or smartphone, you are greeted with a clean terminal activation screen:

- **Environment Indicator** — The header shows `PRODUCTION` in brand purple, confirming the terminal will record real transactions on live blockchain networks.
- **Cashier Code Input Field** — Where cashiers type the 8-character pairing code.

- **Sign In Button** — Authenticates the pairing credential and launches the assigned cashier session.
- **Scan QR Code Option** — Directly activates the device camera for fast 5-second optical pairing.
- **Sandbox Switch Link** — A subtle text link ('*Beralih ke Sandbox*') at the bottom used for staff training sessions.

Method 1: Scan QR code (Recommended — 5 Seconds)



POS Camera Viewfinder for Optical Pairing

1. **Tap 'Scan QR code'** — Open the camera scanner on your EDC terminal.
2. **Align Viewfinder** — Point the terminal's rear camera at the pairing QR code displayed in the web dashboard.
3. **Instant Auto-Login** — As soon as the QR is recognized, the terminal authenticates immediately with zero extra taps required. The screen transitions directly to the main transaction keypad.

> 💡 **CAMERA PERMISSION**
>
> On first launch, Android prompts for Camera permission. Tap **'While using the app'** to enable the optical barcode and QR scanner.

Method 2: Manual 8-character code entry

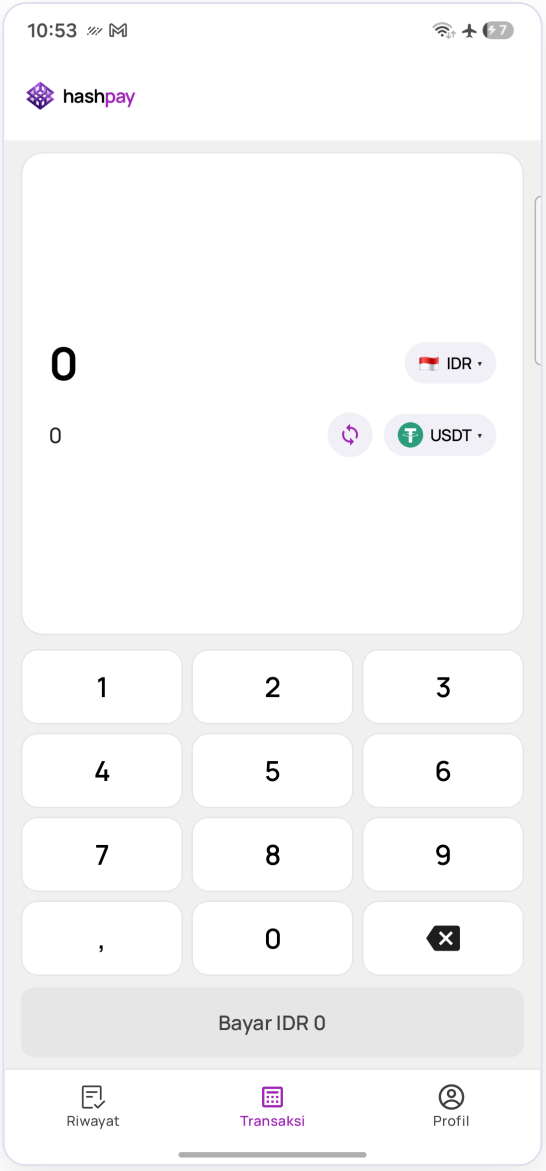
1. **Read Code from Dashboard** — Take note of the 8 uppercase characters (e.g. `OYA8DZCT`) shown in the merchant portal.
2. **Type Code into Field** — Tap the input box on the POS screen and enter the characters.
3. **Tap 'Sign in'** — The terminal validates the code against the Hashpay server and loads your cashier profile within 1–2 seconds.

> 🔒 **SESSION PERSISTENCE**
>
> Once paired, your session remains securely active throughout your work shift even if the terminal screen turns off or the app is minimized. Cashiers do not need to re-pair every time the screen unlocks.

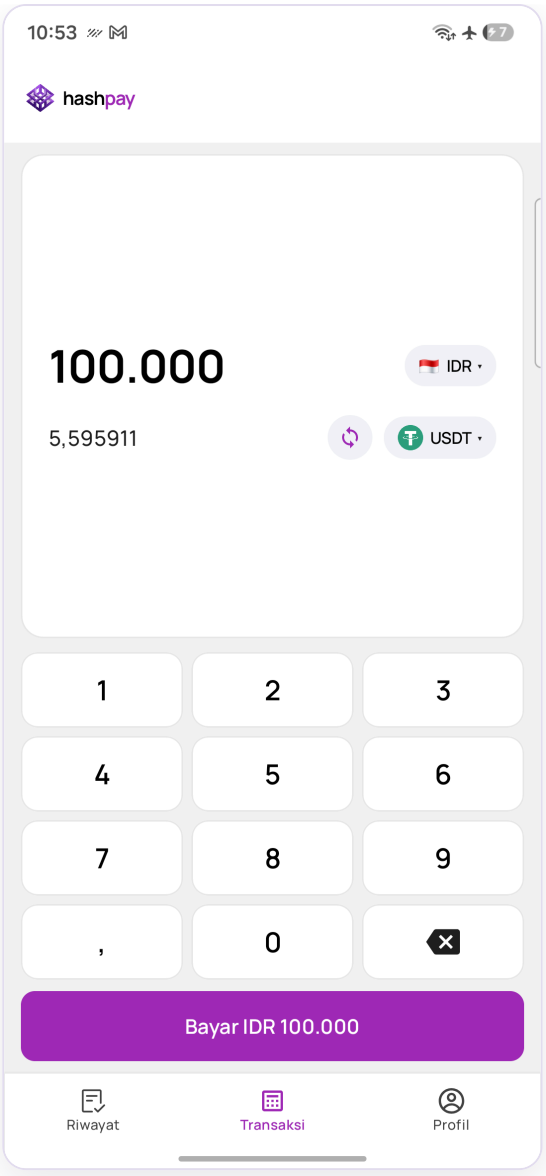
CHAPTER 4.0 · PAYMENT FLOW

Keypad & Two-Way Amount Input

> *The cashier's primary sales workstation. Input order totals in Rupiah or directly in Crypto with real-time currency conversion, dual-mode swapping, and quick zero buttons.*



Keypad in Standby State (IDR 0)



Keypad with IDR 100.000 Entered & Live USDT Conversion

Two-way input mode (Fiat & Crypto)

Hashpay POS features a revolutionary **Two-Way Input Display**. Depending on how your customer wants to transact, you can bill them in fiat currency or directly in stablecoins:

- **Fiat Mode (Default)** — Type the bill in Indonesian Rupiah (e.g. `100.000`). The terminal automatically computes and displays the real-time crypto equivalent below (e.g. `~5.595911 USDT`).
- **Crypto Mode** — If a customer asks to pay an exact crypto sum (e.g. `50 USDT`), tap the **Swap Button (⇄)**. The keypad now inputs crypto numbers, and the terminal calculates the corresponding Rupiah value below.
- **Currency Pill Dropdown** — Switch between **IDR** ID and **USD** US in fiat mode, or between **USDT** and **USDC** in crypto mode.

Numpad controls & quick-entry shortcuts

BUTTON / ELEMENT	FUNCTION	OPERATIONAL BENEFIT
Digits 0 to 9	Enter numeric values	Standard responsive touch numpad.
Comma ','	Decimal separator	Used for entering fractional amounts when billing in Crypto or USD.
Backspace '⌫'	Deletes the last digit	Corrects typos quickly without having to clear the entire screen.
Dynamic 'Bayar' Button	Initiates customer checkout	Activates in purple as soon as an amount > 0 is typed (e.g. '*Bayar IDR 100.000*').

> ⭐ **MINIMUM AMOUNT GUARD**
>
> The primary action button stays disabled while the input amount is 0. If an order attempt is triggered with zero sum, the screen prompts '*Nominal harus lebih dari 0*' to prevent accidental empty transactions.

Bottom navigation bar

The bottom navigation bar provides persistent one-tap access across the entire cashier application:

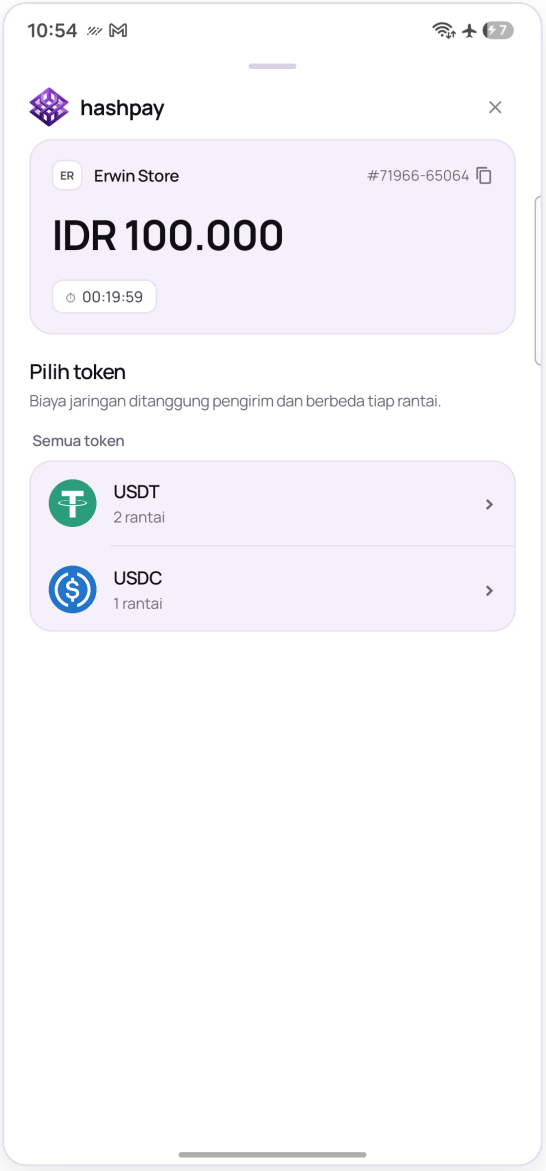
- **History (Riwayat)** — View the transaction ledger, search by Order ID, filter statuses, and reprint customer receipts.
- **Transaction (Transaksi)** — The active sales keypad (highlighted in purple).
- **Profile (Profil)** — Check cashier shift duration, review business details, change language, or log out to close your shift.

> 💡 **ZERO FLOATING-POINT PRECISION LOSS**
>
> All monetary calculations in Hashpay POS are executed using high-precision financial decimals (`BigDecimal`). You and your customers are completely protected from rounding errors or fractional coin discrepancies.

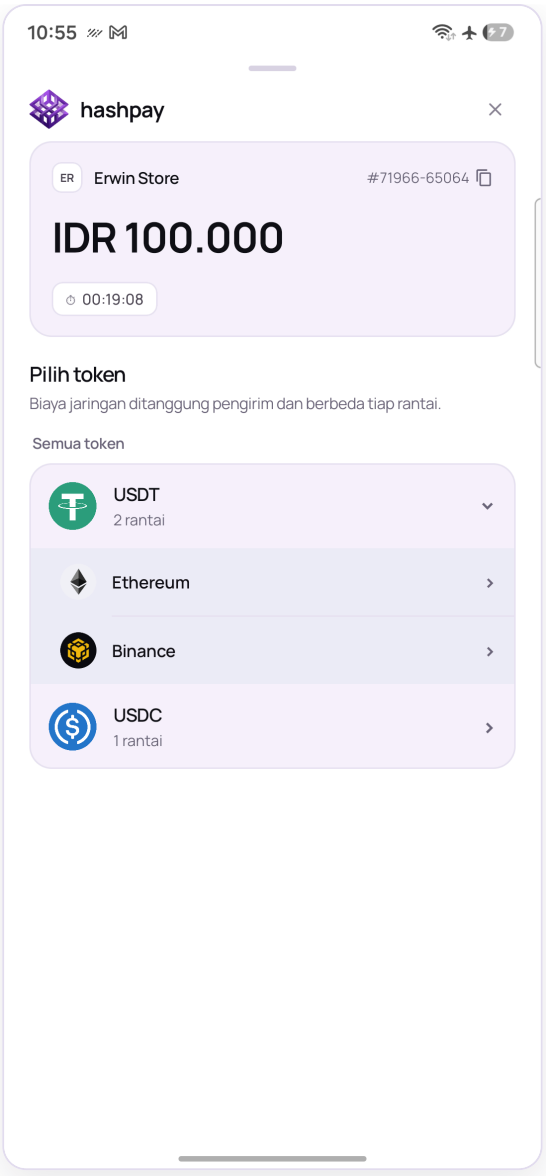
CHAPTER 5.0 · PAYMENT FLOW

Checkout: Token & Blockchain Network

> *Select the accepted stablecoin and the customer's preferred blockchain network under the protected 20-minute order session window.*



Token Selection Screen



Blockchain Network Selection for USDT

Order session header details

After tapping **Bayar**, the terminal initiates a dedicated checkout session with comprehensive header telemetry:

- **Merchant Branding** — Displays your registered store initials logo and commercial brand name (e.g. **Erwin Store**).
- **Order ID** — A unique order code (e.g. `#71966-65064`) assigned to this specific checkout transaction for audit tracking.
- **Total Bill Amount** — The exact bill amount entered on the keypad (e.g. `IDR 100.000`).
- **20-Minute Session Timer** — A live countdown timer (`00:19:59`) ensuring the order remains protected against market fluctuations during customer checkout.
- **Back Navigation (Kembali)** — A back arrow in the header allows the cashier to return to the keypad if the customer wishes to modify the bill amount.

Supported stablecoins (USDT & USDC)

Hashpay supports the world's two most liquid, price-stable crypto assets pegged 1:1 to the US Dollar:

- **USDT (Tether USD)** — The most widely used stablecoin globally with high consumer adoption across all major mobile crypto wallets.
- **USDC (USD Coin)** — Fully backed, highly regulated stablecoin popular among tech professionals and institutional buyers.

Selecting the blockchain network

Tapping a token expands the list of available blockchain networks. Here is how to guide your customer to the best network:

BLOCKCHAIN NETWORK	CONFIRMATION SPEED	BUYER GAS FEE	CASHIER RECOMMENDATION
Binance Smart Chain (BNB / BEP-20)	~3 seconds	Very Low (< $0.05)	⭐ **Top Recommendation**: Fastest and cheapest path for everyday retail, dining, and cafes.
Tron (TRC-20)	~3 seconds	Low (~ $1.00 - $1.50)	⭐ **Highly Popular**: Preferred by international tourists, Asian customers, and Trust Wallet users.
Solana (SPL)	< 1 second	Negligible (< $0.01)	Ultra-fast payments for mobile wallet users (Phantom).
Ethereum (ERC-20)	~15-30 seconds	Variable ($2.00 - $10.00+)	Reserved for large high-value purchases where the buyer prefers Ethereum's base layer.

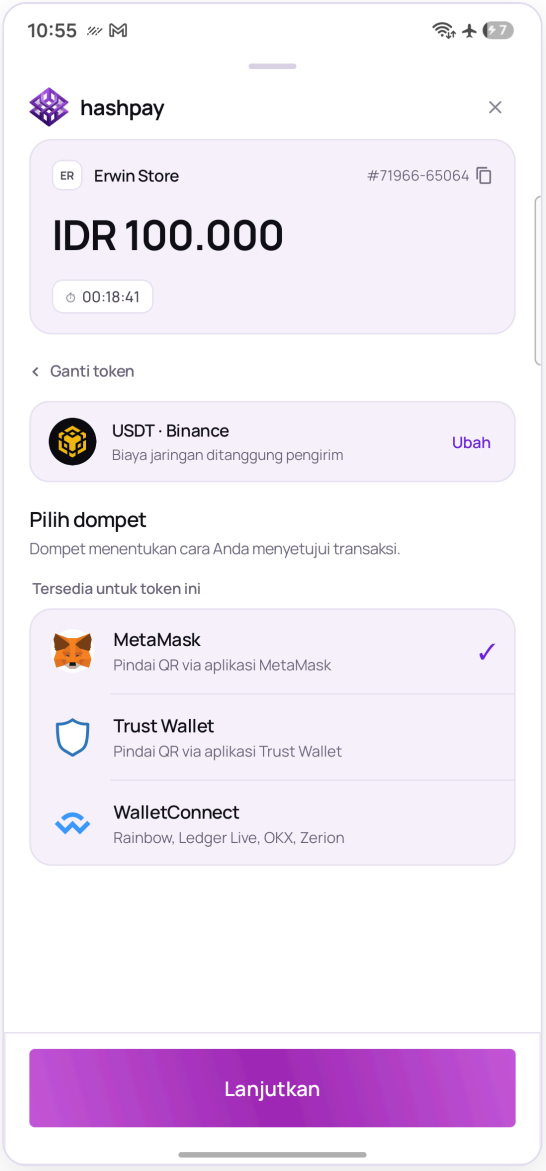
⭐ **CASHIER COMMUNICATION SCRIPT**

Ask your customer politely: *'Kak, mau bayar pakai USDT di jaringan apa? Kami sarankan BNB Chain atau Tron yang prosesnya hanya 3 detik.'* This simple question ensures the customer selects the exact matching chain in their wallet app.

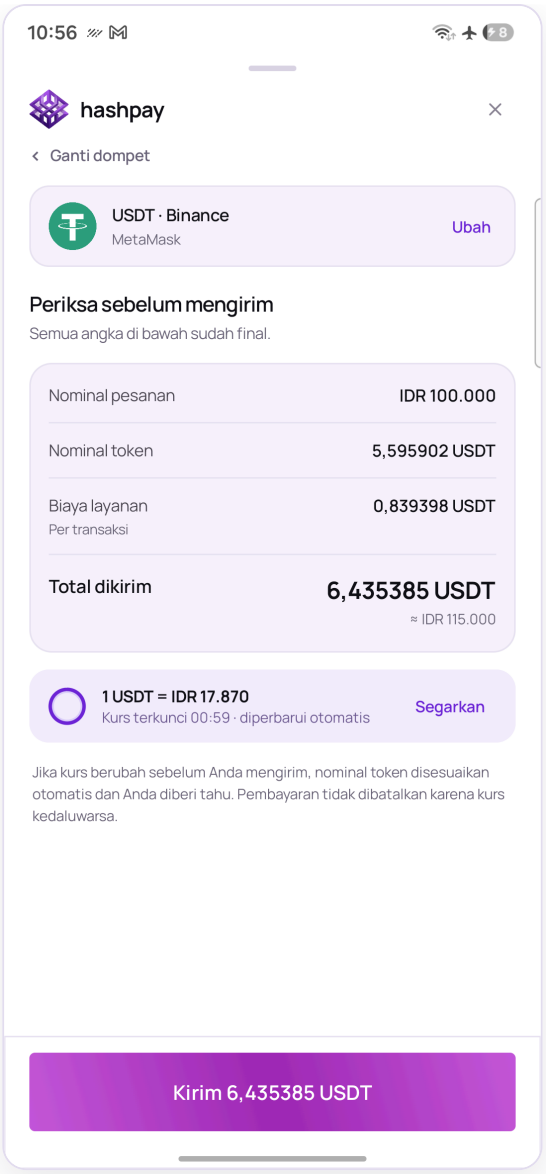
CHAPTER 6.0 · PAYMENT FLOW

Checkout: Wallet Selection & Rate Lock

> *Select the buyer's mobile wallet app and review the transparent fee ledger under Hashpay's 60-second rate-lock guarantee.*



Customer Wallet App Selection



Ledger Breakdown & 60-Second Rate Lock Ticker

Selecting the customer's wallet application

After picking the token and blockchain network, the cashier selects the customer's mobile wallet app:

- **MetaMask** — Selected by default (purple checkmark). Ideal for customers using MetaMask mobile app or browser extensions.
- **Trust Wallet** — Popular multi-chain mobile wallet widely used for BSC and Tron stablecoins.
- **Phantom** — Highly popular wallet for Solana payments.
- **WalletConnect** — Universal open protocol connecting to over 300+ crypto wallets (OKX, Rainbow, Ledger, Coinbase Wallet, Zerion, Bitget, etc.).

Bill ledger breakdown & rate lock guarantee

Tapping **Lanjutkan (Continue)** opens the transaction confirmation ledger screen. Cashiers can review the numbers with the customer before displaying the QR code:

- **Order Principal Amount** — The store bill in Rupiah (e.g. `IDR 100.000`).
- **Base Token Amount** — The pure crypto conversion (e.g. `5.595902 USDT`).
- **Service Fee** — Any processing fee allocated according to store policy.
- **Total to Send** — The final net crypto sum required from the buyer (e.g. `6.435385 USDT`).
- **60-Second Circular Rate Lock Ticker** — An animated countdown circular ticker locking the exchange rate (e.g. `1 USDT = IDR 17.870`). If the 60 seconds expire, the rate smoothly recalculates without cancelling the order.

> 💡 **RATE STABILITY GUARANTEE**
>
> Once the customer advances to the QR screen, the rate is locked for a generous 15-minute window. Neither party suffers from crypto market volatility during the transaction.

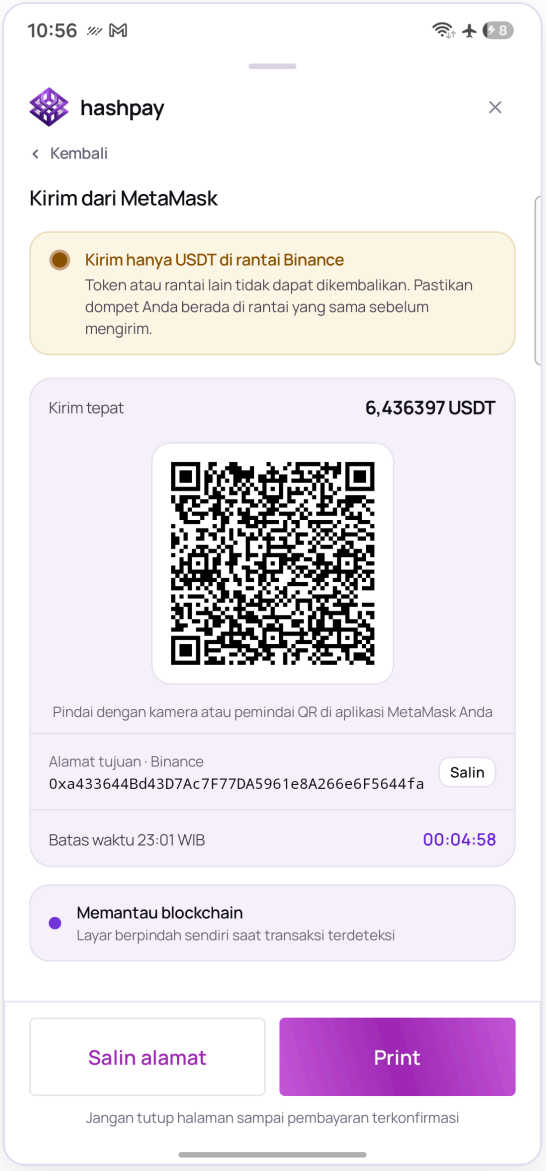
Proceeding to payment or returning

Tap the sticky bottom button **'Kirim ... USDT'** (e.g. '*Kirim 6.435385 USDT*') to generate the live payment QR code. If the customer wants to change their wallet or network, tap **Kembali** to return to the selection step.

CHAPTER 7.0 · PAYMENT FLOW

QR Code & Real-Time On-Chain Monitoring

> *Present the dynamic EIP-681 QR code, print paper QR slips for table-service customers, and watch automated on-chain payment detection and receipt printing.*



Dynamic Payment QR & Live Blockchain Monitoring Screen

Elements on the payment QR screen

- **Dynamic EIP-681 QR Code** — When scanned, this smart QR auto-populates the recipient deposit address, smart contract, and exact crypto amount on the customer's phone, preventing manual copy-paste errors.
- **Exact Amount Indicator** — Displays the required token amount down to micro-decimals (e.g. `6.436397 USDT`), including a 3-digit anti-collision identifier.

- **Deposit Address Box & 'Salin Alamat'** — Shows the dedicated order wallet address with a quick **Salin alamat (Copy Address)** button for manual transfers.
- **15-Minute Payment Window** — A countdown timer indicating the remaining validity of the transaction session.
- **Live Blockchain Listener** — A pulsing green radar indicator actively listening to the blockchain network for incoming transfer blocks.
- **Back Navigation (Kembali)** — Allows the cashier to return to wallet or token selection if the customer wishes to switch payment methods.

Thermal paper QR printing (Table service & dine-in)

Hashpay POS includes a unique **Print QR Slip** feature designed specifically for dining restaurants, cafes, hotel front-desks, and drive-throughs:

1. **Tap 'Print' on QR Screen** — While the QR code is displayed on the terminal, simply tap the primary **Print** button at the bottom.
2. **Instant Thermal Slip** — The built-in 58mm printer immediately cuts a compact paper receipt containing the dynamic QR code, store name, order ID, and exact amount in Rupiah and crypto.
3. **Hand Slip to Customer** — The waiter can take the paper slip directly to the customer's dining table. The customer scans the printed QR from their seat using their mobile wallet without walking up to the cash register counter.

Automated on-chain confirmation & automatic receipt printing

Cashiers do not need to press any manual confirmation button or check external bank statements. Here is how the automated verification works:

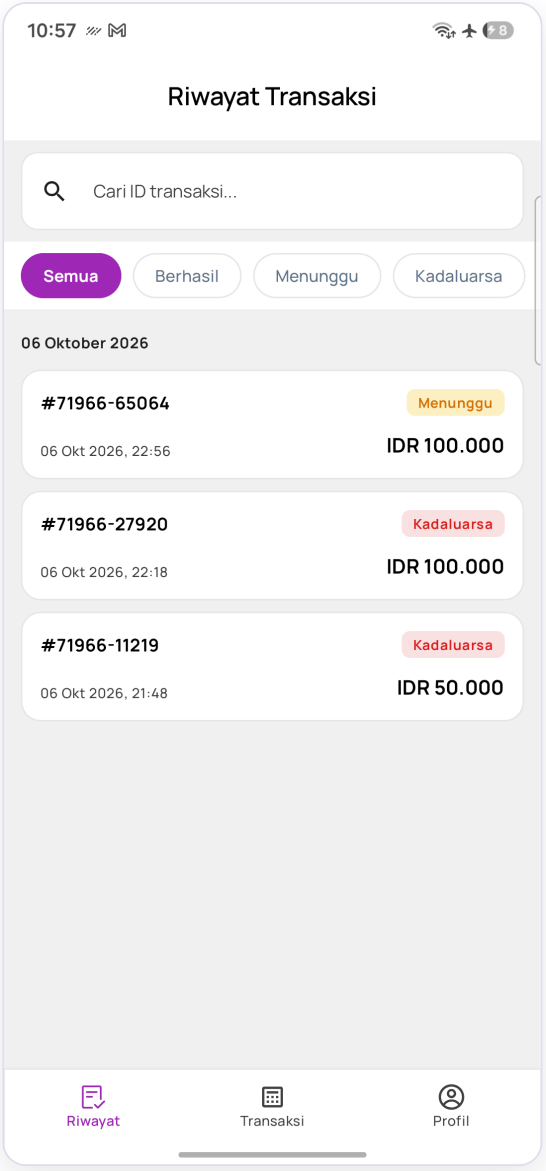
- **Instant Blockchain Broadcast (2–5 Seconds)** — As soon as the customer authorizes the transaction in their wallet, the network node broadcasts the block.
- **Automatic Screen Flip (Success Screen)** — The terminal detects the on-chain transfer and flips automatically to the green **Payment Success** screen with an animated green checkmark ('*Pembayaran diterima*').
- **Automatic Receipt Print** — The built-in 58mm thermal printer prints the official customer payment receipt automatically upon screen flip. The cashier does not need to press any print button.
- **Finish Button (Selesai)** — The cashier tears off the printed receipt, hands it to the customer, and taps the bottom **Selesai** button to return directly to the keypad ready for the next customer.
- **Zero Fraud & Chargeback Protection** — Once settled on the blockchain, payments are cryptographically final and cannot be disputed or reversed.

> ⚠ **DO NOT CLOSE THE SCREEN**
>
> Keep the QR screen open on the terminal until the screen automatically flips green. Closing or aborting the screen while the customer is transferring may cause unnecessary payment delays.

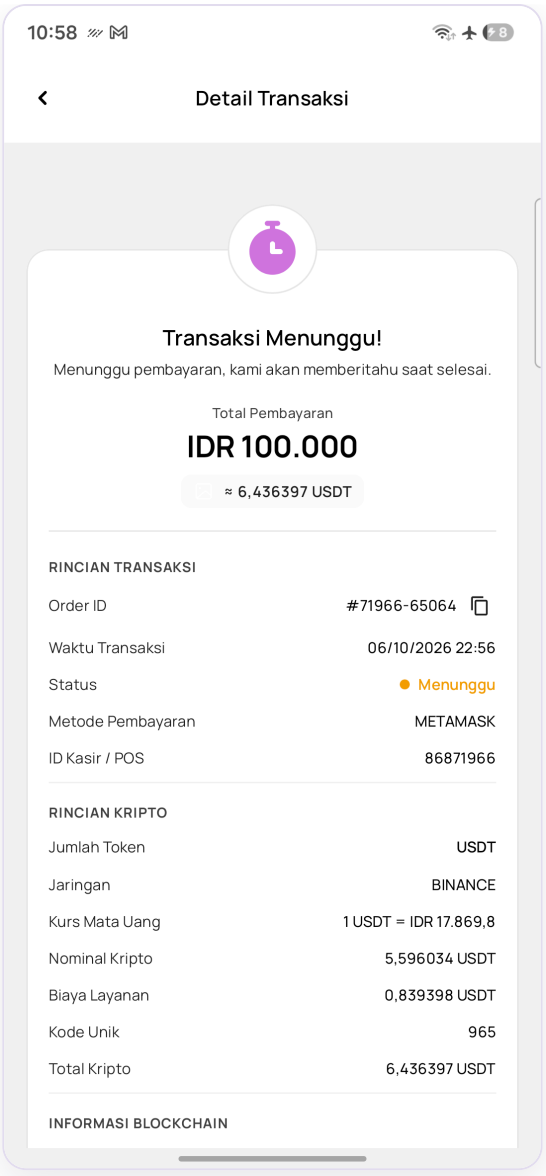
CHAPTER 8.0 · SHIFT & TROUBLESHOOTING

Transaction History & Receipt Reprinting

> *Track all store transactions processed at your cashier terminal, inspect blockchain metrics, filter by payment status, and reprint customer thermal receipts anytime.*



Cashier Shift Transaction History Ledger



Detailed Transaction View & On-Chain Explorer Link

Browsing and filtering transactions

The **History (Riwayat)** tab provides cashiers with a complete audit trail of every charge generated on this terminal:

- **Quick Search by Order ID** — Type an Order ID (e.g. `71966`) to locate a customer's payment in seconds.
- **Filter Status Tabs** — Switch between **All (Semua)**, **Success (Berhasil - Green)**, **Waiting (Menunggu - Yellow)**, and **Expired (Kadaluarsa - Red)**.
- **Transaction Card Info** — Each row displays the transaction date and time, the bill amount in Rupiah, the crypto token amount, and the status badge.

Transaction detail inspection

Tapping any row in the list opens the comprehensive transaction detail view:

- **Status Header** — Real-time state of the order ('*Transaksi Berhasil*' or '*Transaksi Menunggu*').
- **Financial Summary** — Complete breakdown of the Rupiah bill, crypto amount, and exchange rate applied.

- **Blockchain Metrics** — Blockchain network name (e.g. `BINANCE`), customer deposit address, and external block explorer link (TxHash) for cryptographic proof.
- **Terminal Metadata** — Unique Order ID and the active Cashier ID responsible for the transaction.

Reprinting thermal receipts (Cetak Ulang Struk)

Cashiers frequently need to provide duplicate receipts. Hashpay POS makes reprinting effortless:

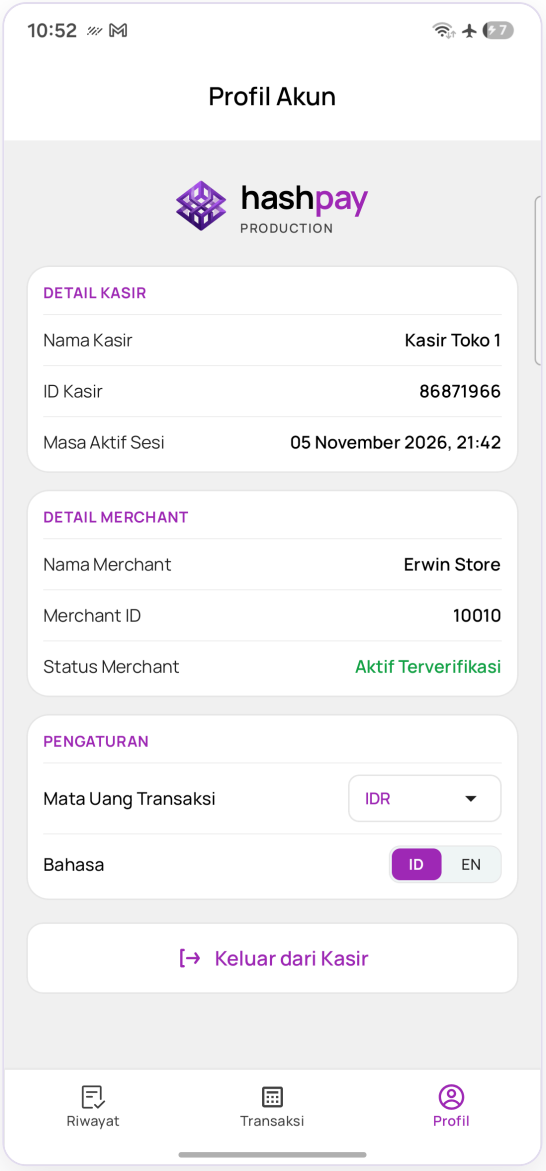
1. **Locate the Order** — Find the transaction in the History tab using search or status filters.
2. **Open Details** — Tap the transaction card to view its full receipt data.
3. **Tap 'Print'** — Tap the primary **Print** button at the bottom of the screen. The thermal printer immediately cuts a fresh customer receipt.

> ⭐ **PAPER ROLL EXHAUSTION RECOVERY**
>
> If the thermal printer runs out of paper mid-print during a busy rush, don't worry! Simply load a new paper roll, open the History tab, tap the last completed transaction, and press **Print** to reprint the receipt cleanly.

CHAPTER 9.0 · SHIFT & TROUBLESHOOTING

Profile, Preferences & Shift Handover

> *Inspect cashier station telemetry, customize language and base currency preferences, and log out cleanly to conclude your work shift.*



Cashier Station Profile & Shift Configuration Screen

Cashier station telemetry cards

The **Profile (Profil)** screen displays vital station telemetry organized into clear operational cards:

- **Card 1: Detail Kasir (Cashier Details)** — Displays your assigned station name (e.g. *Kasir Toko 1*), the unique terminal Cashier ID, and the exact Session Expiry timestamp (`expiredAt` , e.g. *24 October 2026, 17:00*).
- **Card 2: Detail Merchant (Merchant Details)** — Shows the commercial business name, registered Merchant ID, and merchant compliance status (*Active / Verified* in green).

Terminal preferences

PREFERENCE SETTING	AVAILABLE OPTIONS	OPERATIONAL IMPACT
Transaction Currency (Mata Uang Transaksi)	**IDR (Rupiah ID)** or **USD (Dollar US)**	Sets the base currency for keypad inputs and receipt currency symbols.
Language (Bahasa)	**ID (Bahasa Indonesia)** or **EN (English)**	Instantly toggles the entire POS user interface between Indonesian and English.

Standard Operating Procedure (SOP) for closing shift

When your roster shift ends, follow these steps for a clean handover to the incoming cashier:

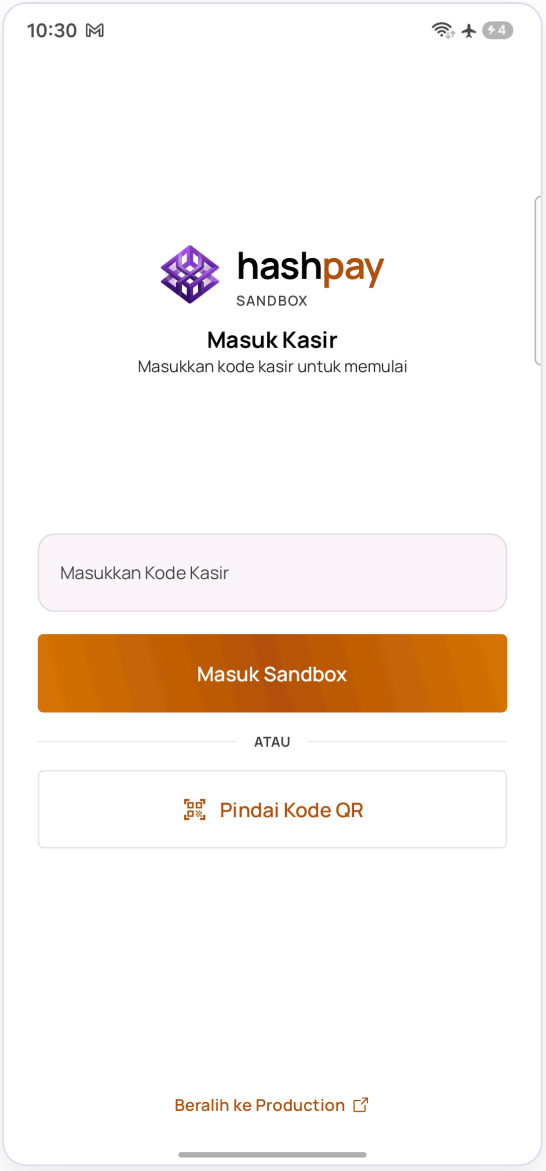
1. **Audit Shift History** — Open the **History** tab and verify that all customer payments for your shift are settled (*Berhasil*).
2. **Open Profile** — Tap the **Profile** icon in the bottom navigation bar.
3. **Tap 'Keluar dari Kasir'** — Tap the red button at the bottom of the screen to unbind the session and log out.
4. **Handover to Incoming Staff** — The terminal returns to the login screen, ready for the next shift staff to scan their pairing code.

> 🔒 **SHIFT CLEANLINESS GUARANTEE**
>
> Always tap **Keluar dari Kasir** before leaving the counter. Logging out guarantees that transactions made by the next cashier will not mix into your shift audit report.

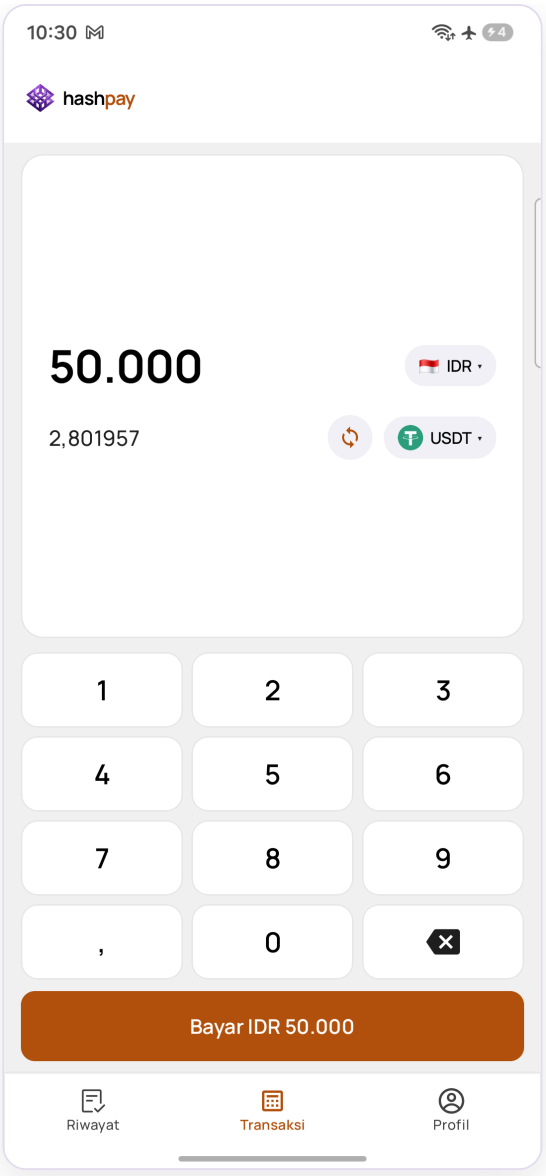
CHAPTER 10.0 · SHIFT & TROUBLESHOOTING

Sandbox Training Mode & Testnet Practice

> *Train newly hired cashiers, practice checkout flows, and test thermal printer operations risk-free on testnet before handling live customer funds.*



Hashpay POS Sandbox Login Screen



Sandbox Keypad with Orange Accent (IDR 50.000)

Why practice in Sandbox mode?

Operating a crypto payment terminal in a fast-paced retail counter can intimidate new staff. Sandbox mode provides a risk-free training simulator that mirrors production 1:1:

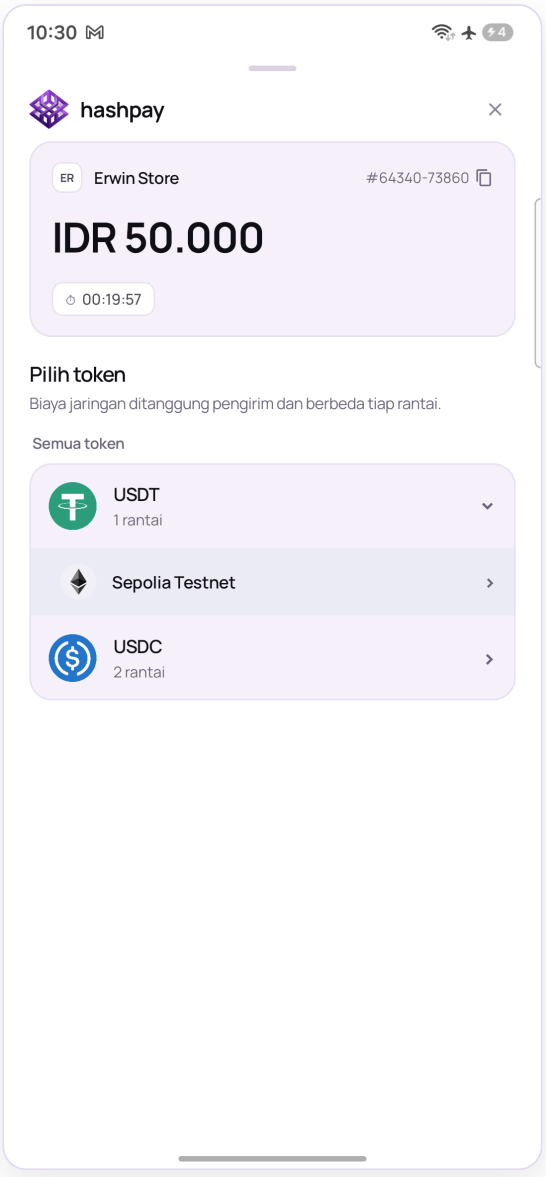
- **Zero Financial Risk** — Transactions use free testnet tokens with zero real-world value.
- **Staff Confidence** — New cashiers can practice inputting bills, swapping currencies, choosing networks, and handling customer questions without fear of mistakes.
- **Hardware & Printer Testing** — Verify thermal printer drivers, paper alignment, and receipt formatting before opening the retail store.

Visual differences in Sandbox mode

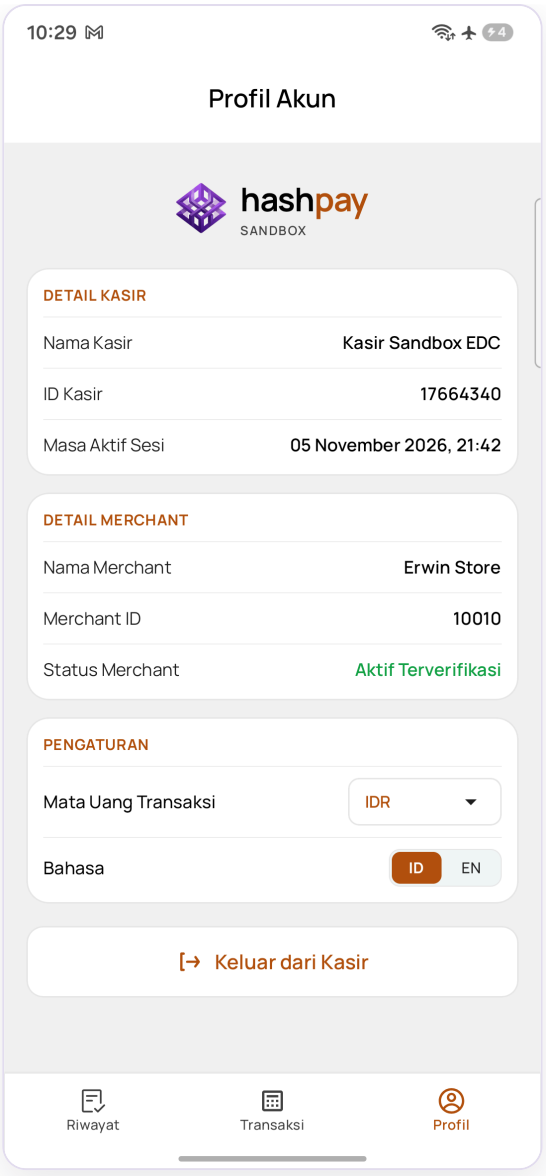
To ensure cashiers never mistake training mode for live store sales, Sandbox features unambiguous visual safeguards:

VISUAL INDICATOR	PRODUCTION (LIVE)	SANDBOX (TRAINING)
Header Accent Color	Brand Purple	Bright Orange
Environment Badge	PRODUCTION	SANDBOX
Pairing Codes	Generated from Live dashboard tab	Generated from Sandbox dashboard tab
Blockchain Networks	Mainnets (BNB Chain, Tron, Ethereum, Solana)	Testnets (Ethereum Sepolia, BSC Testnet)

Testnet token checkout & profile



Testnet Blockchain Selection (Sepolia & BSC Testnet)



Sandbox Cashier Profile & Test Shift Details

Sandbox checkout uses official blockchain testnets (Ethereum Sepolia and BSC Testnet). All transactions are recorded in an isolated database sandbox and never contaminate your company's real sales books.

Switching back to Production mode

When training is complete, tap **Keluar dari Kasir** from the Profile tab. On the login screen, tap the small link **'Beralih ke Production'** at the bottom. The header immediately turns purple, ready for live customer billing.

CHAPTER 11.0 · SHIFT & TROUBLESHOOTING

Cashier SOP & Practical Troubleshooting

> *Standard operating procedures for cashier shift opening, handling underpayments, managing thermal printers, and resolving customer checkout exceptions.*

Daily shift opening checklist

Before opening the cashier counter each morning or shift start, perform these four checks:

1. **Power & Battery Check** — Ensure the EDC device has at least 50% battery or is securely plugged into its charging dock.
2. **Thermal Paper Roll Check** — Open the printer compartment, ensure adequate 58mm thermal paper remains, pull 2 cm of paper past the cutter, and snap the cover shut firmly until it clicks.
3. **Internet Connectivity** — Confirm the top Android status bar displays an active Wi-Fi or 4G LTE cellular connection.
4. **Verify Production Mode** — Check that the app header displays **PRODUCTION** (purple) and shows your correct cashier station name under Profile.

Customer checkout standard procedure

1. **Ring up the Bill** — Enter the total in Rupiah on the keypad and confirm the amount with the customer.
2. **Confirm Blockchain Network** — Ask: '*Kak, mau bayar pakai USDT di jaringan apa? Kami rekomendasikan BNB Smart Chain atau Tron yang prosesnya 3 detik.*'
3. **Select Wallet & Review Ledger** — Tap continue to open the confirmation ledger and review the final crypto sum.
4. **Present Dynamic QR Code** — Show the screen to the customer, or tap **Print** to give them a thermal QR slip if seated at a dining table.
5. **Instant On-Chain Detection & Receipt** — Watch the screen turn green automatically with '*Pembayaran diterima*'. The thermal printer automatically cuts the receipt. Hand it to the customer and press **Selesai**.

Order cancellation & customer change of mind

If a customer changes their mind before paying or decides to pay with cash instead:

- **Tap the Back Button (Kembali)** — You can safely tap the Back button on the token, wallet, or QR screen to cancel the payment flow.
- **Zero Customer Risk** — Because the transaction was never signed by the customer's wallet, zero funds are deducted. The abandoned order expires harmlessly on Hashpay's backend.

Handling real-world checkout incidents

OPERATIONAL INCIDENT	CAUSE / TRIGGER	STANDARD CASHIER SOP ACTION
Underpayment (Pembeli Kurang Bayar)	Customer transferred from an exchange (e.g. Indodax, Tokocrypto) and forgot to add the exchange's withdrawal fee on top.	The system detects the partial transfer and flags the remaining shortfall. Politely show the shortfall to the customer and ask them to transfer the remaining delta.
Session Expired / Invalid Transaction (`InvalidTransactionScreen`)	The 15–20 minute transfer countdown elapsed or network parameters were canceled.	Reassure the customer: **'Keamanan Saldo: Tidak ada saldo terpotong'**. Tap **Kembali ke Penjualan** on the screen to return to the keypad and generate a fresh invoice with updated market rates.
Printer Out of Paper (Kertas Habis / Macet)	Thermal paper roll ran out mid-print during a rush.	Open latch, insert a new 58mm paper roll with the glossy thermal side facing the print head, close latch tightly, open **History**, select the transaction, and tap **Print** to reprint.
Payment Not Detected Immediately	Network congestion on Ethereum or customer's wallet fee set too low.	Confirm the customer's wallet shows the transaction broadcast. If on BNB Chain or Tron, wait 10–15 seconds for block inclusion. If issues persist, check the TxHash on an explorer.
App Update / System Maintenance Screen	A mandatory POS software update or scheduled backend server maintenance.	If an update screen appears, notify your store manager to install the latest Hashpay POS APK update from the official merchant portal.
Cashier Shift Handover	Staff roster concluded.	Review History tab sales total, open Profile, and tap **Keluar dari Kasir** to lock the terminal for the incoming shift cashier.

> 💡 **ESCALATION TO STORE SUPERVISOR**
>
> If a customer claims funds were deducted from their wallet but the POS screen did not flip to Paid within 2 minutes, open **History**, find the Order ID, and note the customer's wallet address. Contact official merchant support with the Order ID for rapid on-chain trace.