Hashpay
TECHNICAL PUBLICATIONS SUITE

• OFFICIAL PARTNER SPECIFICATION MANUAL · A4 RELEASE

Complete Merchant Operations & Settlement Manual

Comprehensive technical handbook for all merchant features: onboarding, verification, sales dashboard, payment links, hosted checkout, POS, and banking payouts.

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Zero Floating-Point Financial Standard

DOCUMENT STRUCTURE

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CHAPTER 1.0 · GETTING STARTED

Merchant Guide Introduction

> *Hashpay empowers your business to seamlessly accept stablecoin payments (USDT and USDC) with instant fiat conversion into Indonesian Rupiah (IDR), zero chargeback fraud, and automated settlements directly into your commercial bank account or self-custody crypto wallet.*

Why your business should accept stablecoins

Traditional payment gateways and credit cards charge high processing fees (2.5% to 4%), hold funds for days (T+2 or T+3 clearing), and expose your business to costly dispute and chargeback fraud. Furthermore, receiving payments from international customers often incurs excessive foreign exchange markups. Hashpay eliminates these pain points by leveraging digital stablecoins pegged 1:1 to the US Dollar:

KEY BENEFIT	TRADITIONAL PAYMENTS / DIRECT CRYPTO	HASHPAY MERCHANT GATEWAY
Price Stability	Bitcoin and Ethereum fluctuate wildly in value	USDT & USDC are pegged 1:1 to USD, eliminating market volatility
Settlement Speed	Bank clearing takes 2–3 working days; cross-border takes a week	Instant on-chain confirmation with automated daily/weekly settlements
Chargeback Protection	Credit cards are vulnerable to friendly fraud & chargeback scams	Blockchain transfers are cryptographically final — 0% chargeback losses
Transparent Fees	2.5% – 4% credit card fees plus foreign exchange margins	Cost-effective, transparent MDR starting from just 0.5%
Global Customer Base	Declined international cards and currency friction	Anyone with a Web3 wallet worldwide can pay your store in seconds

Three ways to accept payments with Hashpay

Whether you run a physical retail store, an online e-commerce website, or manage remote B2B client invoicing, Hashpay provides tailored acceptance channels for every business model:

- **Payment Links (Online & Chat Commerce)** — Generate professional online invoices with itemized product lists right from your dashboard. Share links directly with buyers via WhatsApp, Instagram DM, Telegram, Email, or SMS. Ideal for social commerce, custom orders, catering, and service billing.
- **Cashier POS App (Physical Store & Retail Counters)** — Equip your retail staff with our dedicated Android POS terminal application on smart EDC terminals (Sunmi, iMin, Pax) or standard Android smartphones. Cashiers simply punch in the Rupiah total and display a dynamic, on-chain QR code for the customer to scan at the counter.
- **E-Commerce Web Checkout** — Integrate our hosted checkout modal or seamless API directly into your WooCommerce, Shopify, or custom online store. Customers select their preferred token and wallet during checkout, and your web server receives instant automated webhook notifications upon payment.

How the customer payment flow works (Step-by-step)

The payment journey is designed to be frictionless for both your staff and your customers. Here is an end-to-end example of a Rp 150,000 coffee purchase at a store:

1. **Cashier Enters Bill (or Link is Created)** — The cashier punches Rp 150,000 on the POS keypad or creates a payment link. The system instantly queries live market rates and locks the exact crypto amount (e.g., 9.20 USDT) for 15 minutes.
2. **Customer Selects Token & Blockchain Network** — The customer chooses their preferred stablecoin (USDT or USDC) and payment network (BNB Chain, Tron, Solana, or Ethereum). Networks like BNB Chain and Tron offer near-zero gas fees and confirm within seconds.
3. **Scan QR Code with Any Wallet** — A dynamic EIP-681 standard QR code is displayed. The customer opens their favorite crypto wallet (Trust Wallet, MetaMask, Phantom, OKX, Indodax, etc.) and scans the QR. The destination address and exact amount are automatically pre-filled in their wallet.
4. **Instant Confirmation & Receipt** — The customer taps 'Confirm' in their wallet. Hashpay's real-time blockchain monitoring detects the transaction within 2–5 seconds. The POS terminal rings with a success chime and prints the receipt, while your web dashboard updates the transaction to Paid.

> ⭐ **ZERO CRYPTO KNOWLEDGE REQUIRED FOR CUSTOMERS**
>
> Your customers do not need to calculate exchange rates or enter long cryptographic wallet addresses manually. The QR code automatically formats the smart contract parameters, ensuring 100% accurate payments every single time.

New merchant onboarding checklist

Follow this quick 4-step checklist to set up your merchant account and begin accepting payments in under 15 minutes:

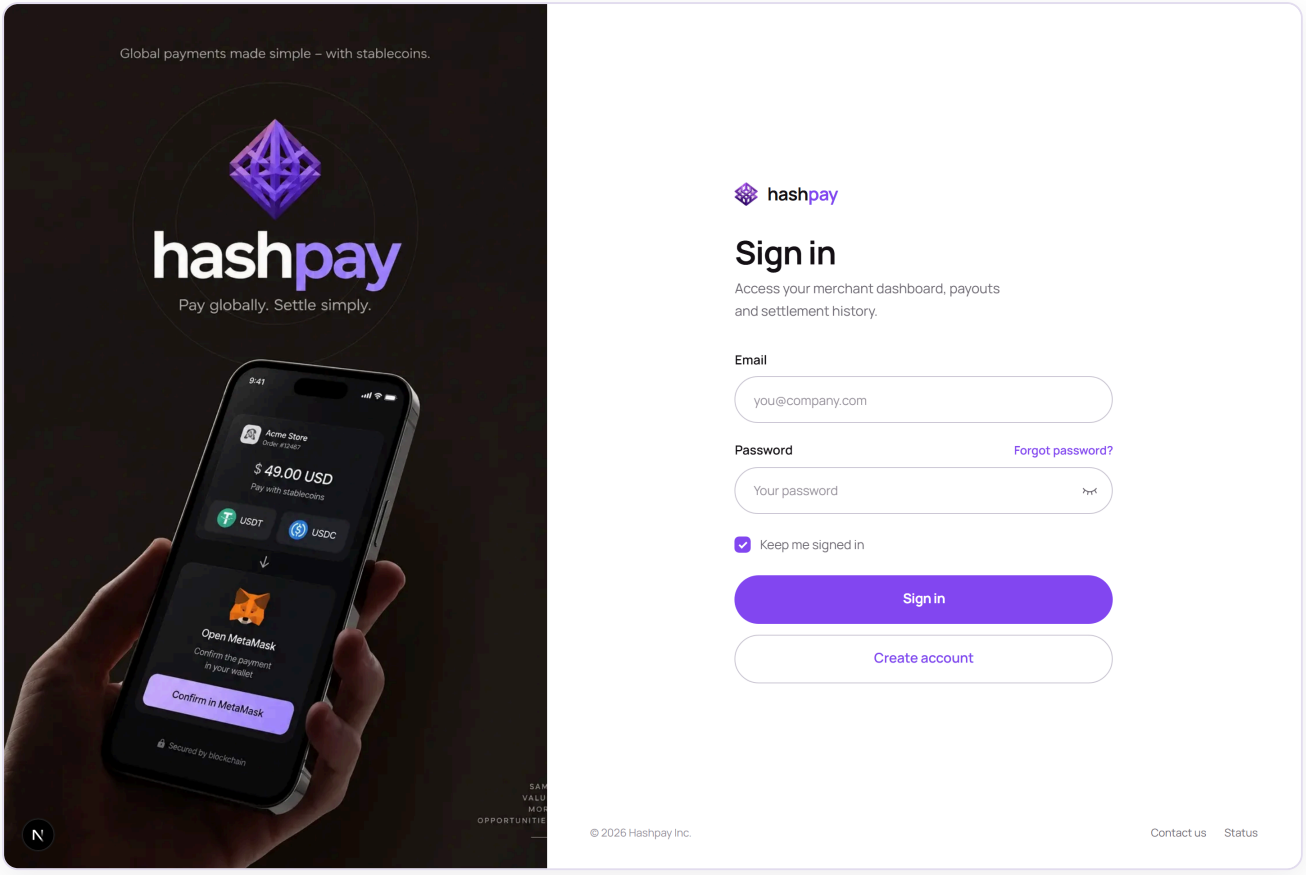
1. **Sign Up & Verify Email** — Create your merchant account at `https://dashboard.hashpay.id` and click the activation link sent to your corporate email.
2. **Complete Business Profile & Banking** — Under Settings, enter your business brand name, registered company details, and register your local Indonesian bank account (BCA, Mandiri, BRI, BNI, etc.) or crypto wallet for payouts.
3. **Configure Payment Channels & MDR Fees** — Navigate to Settings → Payment Methods to choose which tokens and networks to accept, and configure whether fees are borne by your store or added to the buyer's checkout total.
4. **Start Transacting** — Generate your first online Payment Link to send to a client, or download the `HashpayPOS.apk` app to pair your store's in-person cash register.

> 💡 **DEVELOPER & API DOCUMENTATION**
>
> If you are a software developer building custom backend integrations, automated webhooks, or shopping cart plugins, please visit the **Integration Guide** in the top navigation bar for complete REST API specs and code samples.

CHAPTER 2.0 · GETTING STARTED

Sign in to Dashboard

> *Your secure entry point to manage sales performance, monitor real-time crypto transactions, configure cashier POS devices, and disburse company funds.*



Official Merchant Sign-In Page

Understanding the sign-in fields

The Hashpay merchant portal uses bank-grade encrypted session management to protect your commercial operations. Here is a breakdown of each component on the login screen:

- **Merchant Email** — Enter the verified email address associated with your merchant account. This address receives daily settlement summaries, OTP security codes, and system notifications.
- **Password** — Enter your confidential account password. Click the eye icon toggle on the right side of the field to verify your input and prevent typos.
- **Keep me signed in (Remember Me)** — When checked, this preserves your active operational session on trusted private devices (such as your store office PC) for up to 30 days, avoiding repetitive logins during daily business hours. **Never check this option on public or shared computers.**
- **Create account** — If your business does not have an active merchant profile yet, click this link to access the self-service business onboarding form.

Step-by-step sign-in procedure

1. **Verify Official HTTPS URL** — Ensure your browser shows the secure SSL lock icon and points to `https://dashboard.hashpay.id`.
2. **Enter Credentials** — Input your registered corporate email and password accurately.
3. **Complete 2FA Verification (If Enabled)** — If Two-Factor Authentication is active on your account (recommended for treasury security), open Google Authenticator or Authy on your mobile phone and enter the 6-digit code.
4. **Access Dashboard** — Click **Sign In**. Upon successful validation, you are redirected immediately to your real-time Dashboard Overview.

> 🔒 **PHISHING PREVENTION WARNING**
>
> Always check your browser address bar to ensure you are on `hashpay.id`. Hashpay staff will NEVER ask for your password or 2FA codes. Never sign in through links received from unsolicited emails or unverified social media messages.

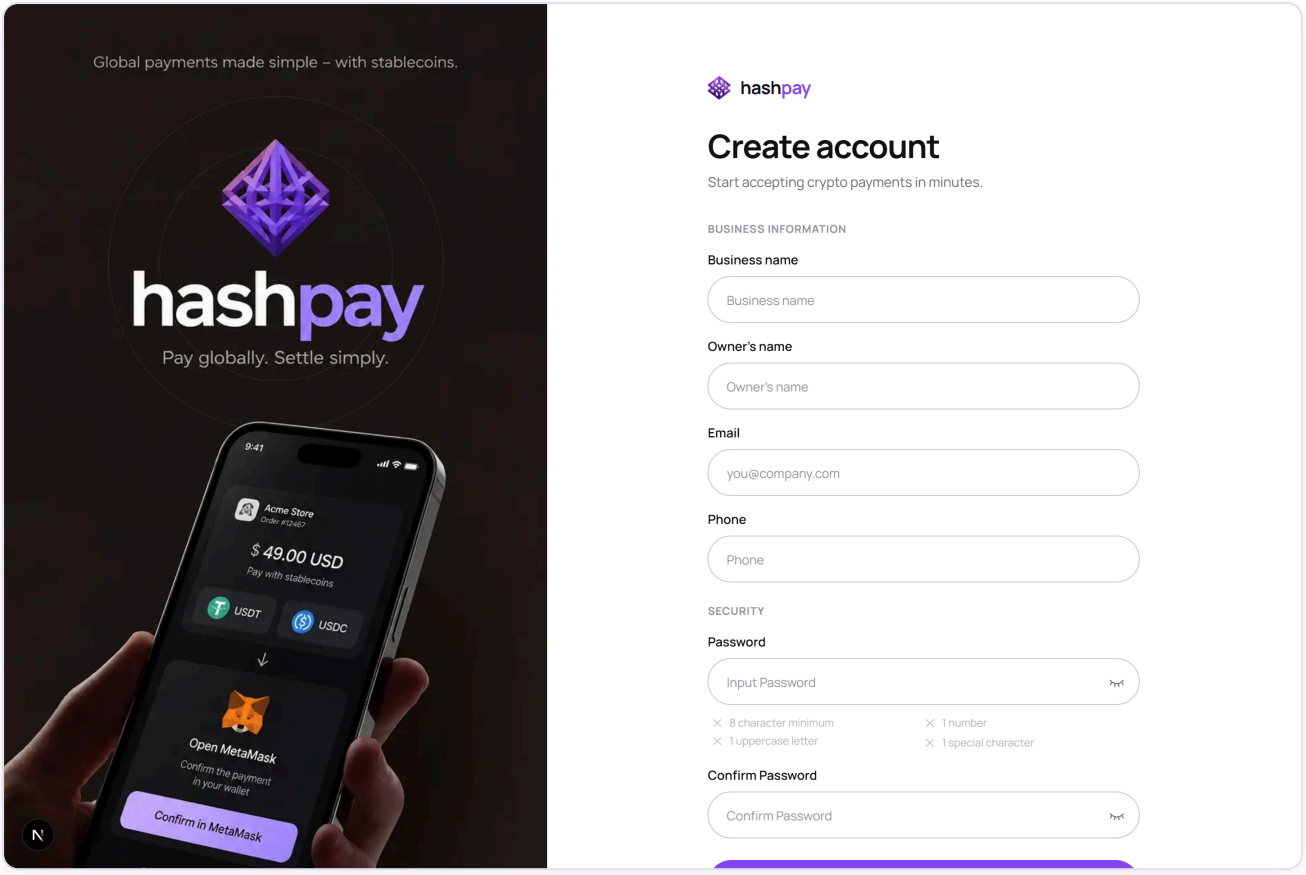
Troubleshooting sign-in issues

- **Forgotten Password** — Click the **Forgot password?** link directly below the password input. Enter your registered email to receive an instant, single-use password recovery link valid for 15 minutes.
- **Account Inactive or Unverified** — If you recently registered, check your email inbox (and Spam/Junk folder) for the Hashpay activation link. Click it to activate your merchant entity before attempting login.
- **Too Many Failed Attempts (Account Lockout)** — If an incorrect password is entered 5 consecutive times, the system temporarily locks login attempts for 15 minutes to thwart brute-force password guessing attacks.
- **Corporate VPN & Firewall Restrictions** — If your office network blocks payment or Web3 domains, ask your network administrator to whitelist `*.hashpay.id`.

CHAPTER 3.0 · GETTING STARTED

Merchant Registration

> *Create a registered merchant account for your enterprise, store chain, or individual business to start accepting stablecoins with automated IDR bank settlements.*



Self-Service Merchant Registration Form

Who can register as a merchant?

Hashpay supports a wide range of commercial entities, from individual sole proprietors (UMKM) to registered corporations (PT, CV, Foundations, and Cooperatives). Anyone who sells physical goods, digital products, hospitality services, or professional consulting can register.

Required registration information

- **Business Name (Brand Name)** — The commercial trading name of your business (e.g., '*Kopi Senja Nusantara*' or '*PT Maju Retail Gemilang*'). This brand name appears directly on your customers' payment screens, WhatsApp invoice titles, and printed POS cashier receipts.
- **Owner / Representative Full Name** — The legal name of the business owner, director, or authorized manager legally responsible for the account.
- **Official Business Email** — A corporate or active email address. This will serve as your primary username, receive daily settlement statements, and receive security recovery links.

- **Active WhatsApp Number** — A verified mobile number used by our compliance team for account activation confirmation, critical transaction alerts, and customer support coordination.
- **Password & Confirmation** — Must be at least 8 characters long, containing a combination of uppercase letters, lowercase letters, numbers, and special symbols for maximum account protection.

Step-by-step registration procedure

1. **Open Registration Form** — Visit `https://dashboard.hashpay.id/register` or click **Create account** from the sign-in page.
2. **Fill in Business Details** — Accurately complete all fields with your legitimate business contact details.
3. **Check Password Strength** — Observe the dynamic password strength indicator. Ensure all four security criteria turn green.
4. **Agree to Terms of Service** — Review Hashpay's Merchant Service Agreement, Privacy Policy, and Anti-Money Laundering (AML) compliance declaration, then check the agreement box.
5. **Submit Registration** — Click **Create account**. The system generates your merchant tenant and sends an instant verification email to your registered inbox.

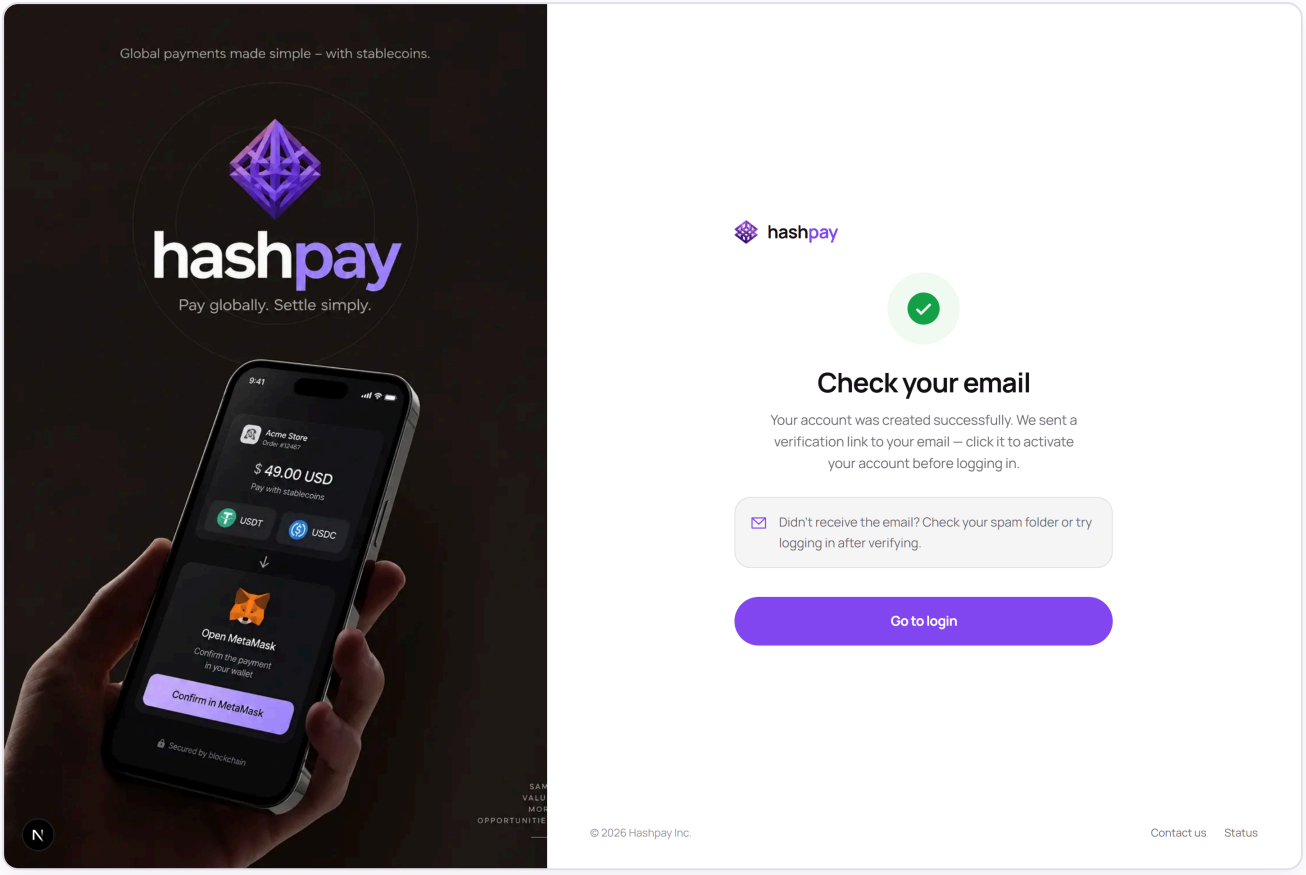
> 💡 **IMMEDIATE NEXT STEP: EMAIL VERIFICATION**
>
> You cannot generate payment links or disburse funds until your email address is verified. Proceed to the next section: **Verify email & password recovery**.

CHAPTER 4.0 · GETTING STARTED

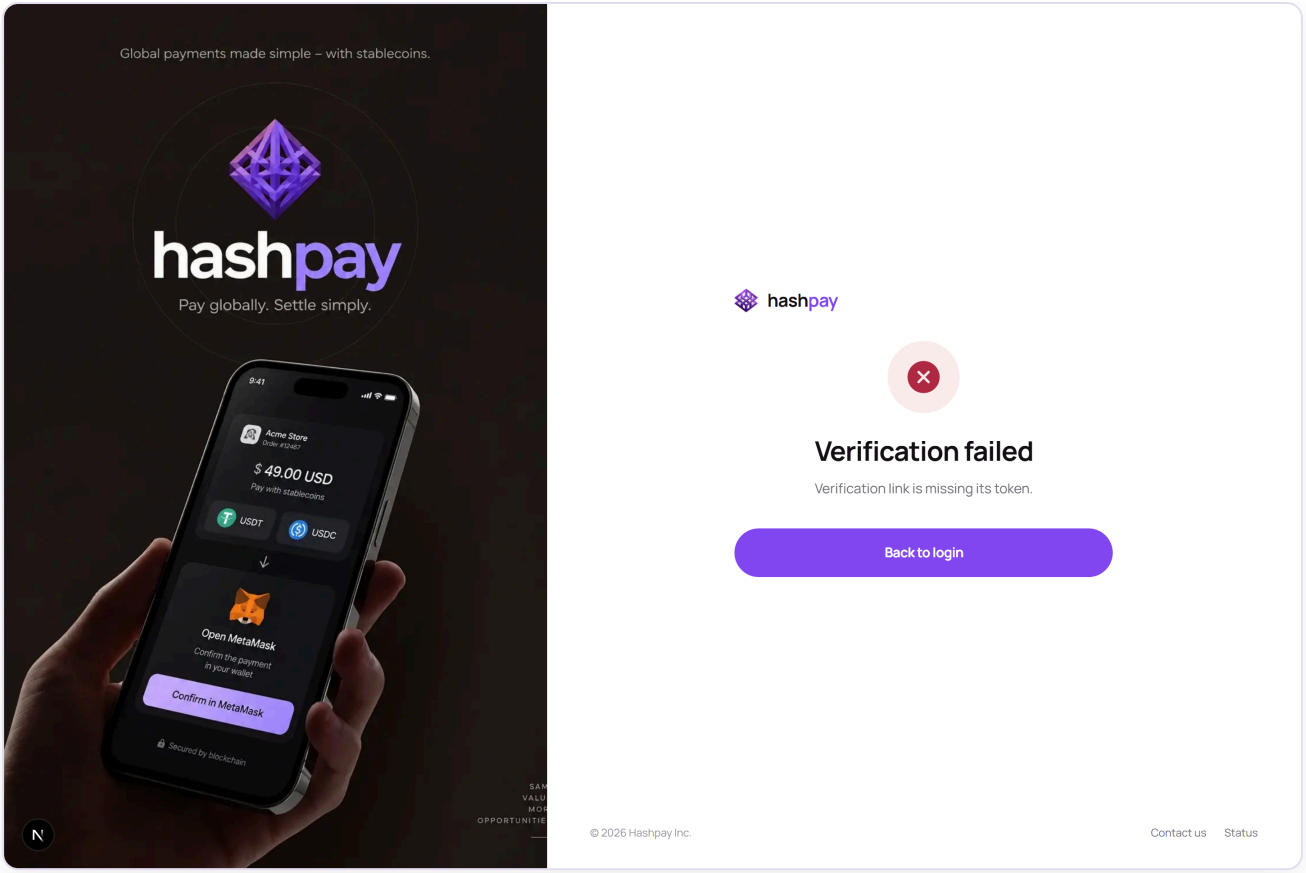
Verify Email & Password Recovery

> *Activate your account through the email verification link, and recover dashboard access securely whenever you forget your password.*

Part 1: Verifying your merchant email



Confirmation Screen After Registration



Successful Email Verification Screen

Email verification is a mandatory compliance step that ensures your business receives genuine settlement reports and security alerts. Follow these steps to activate your account:

1. **Check Your Inbox** — Open your email client and look for an incoming message from `no-reply@hashpay.id` with the subject '*Verify your Hashpay Merchant Account*'.
2. **Click Verification Link** — Click the secure activation button inside the email. The link contains a cryptographically signed, one-time verification token.
3. **Automated Validation** — Your browser will open the verification confirmation screen. The token is checked automatically without requiring manual code entry.
4. **Account Activated** — When the green success badge appears, your account is fully activated. Click **Go to login** to access your dashboard.

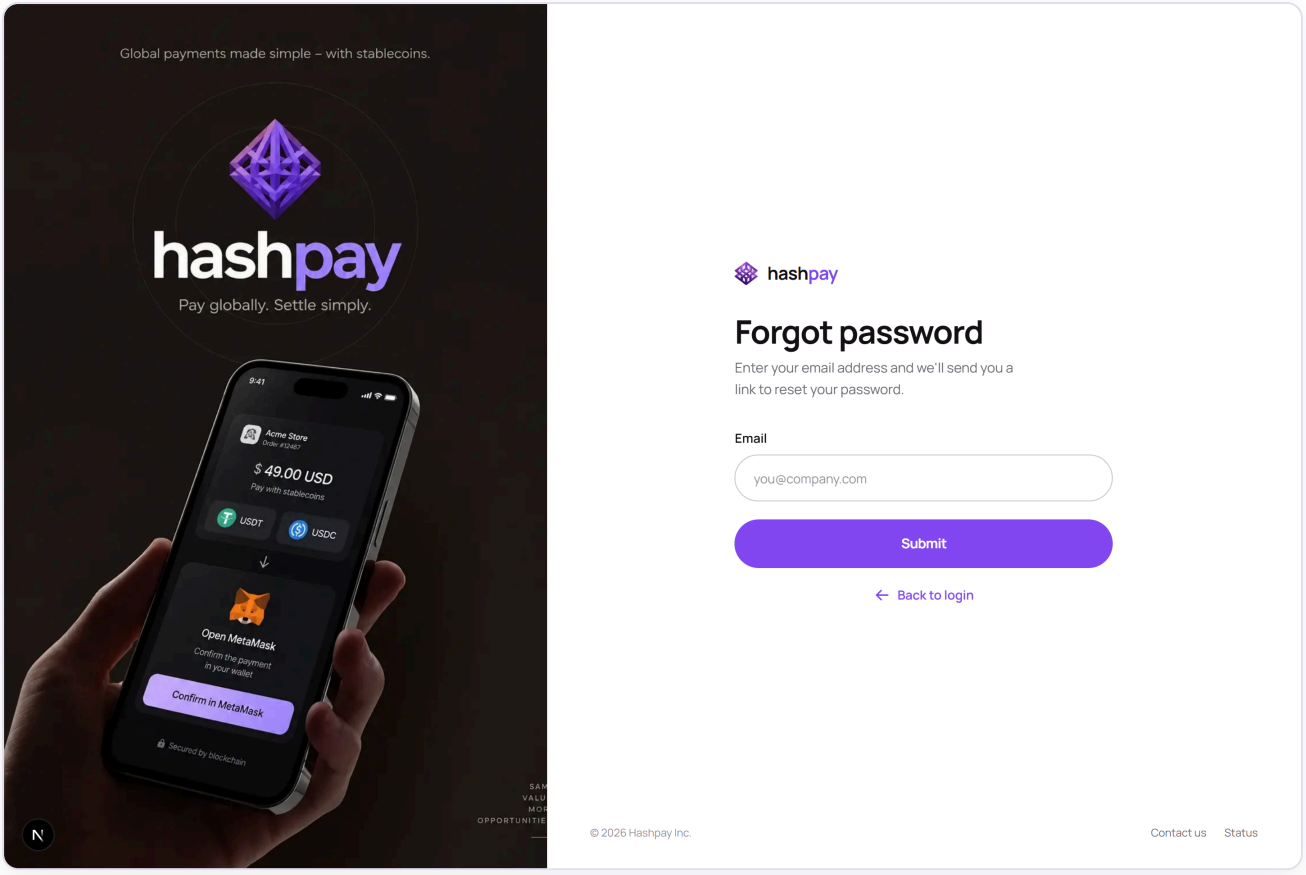
> ⚠️ **VERIFICATION LINK EXPIRATION**
>
> Verification links expire after 24 hours for security. If your link has expired, attempt to sign in with your email and password; the portal will automatically prompt you to resend a fresh verification email.

Troubleshooting email delivery

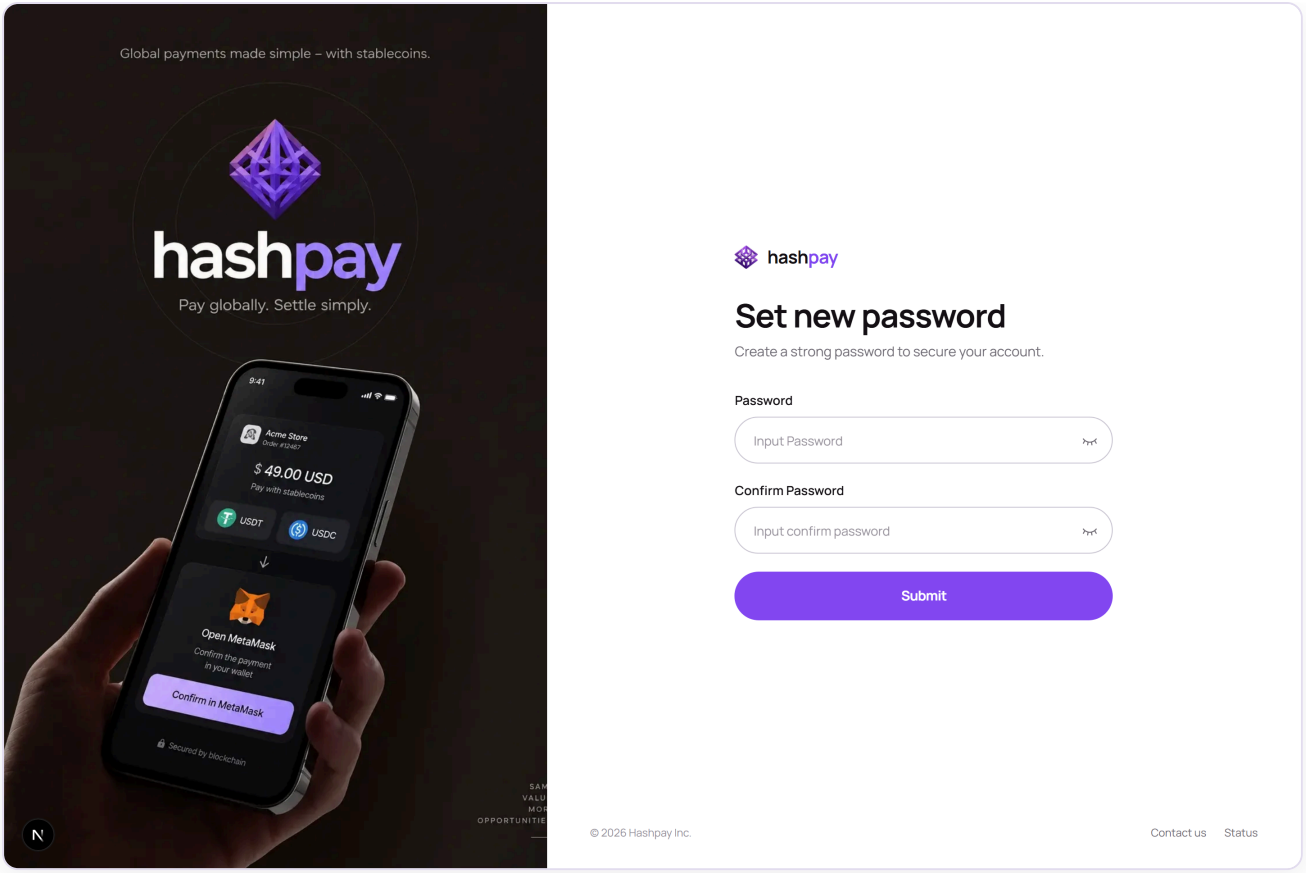
- **Spam & Junk Folders** — Email providers occasionally misclassify automated transactional emails. Check your Spam, Junk, or Promotions tabs.
- **Corporate Domain Filters** — If using a company domain (e.g., `@yourcompany.com`), ensure your corporate IT firewall does not block incoming messages from `hashpay.id`.

- **Resend Verification** — If you do not receive the email after 5 minutes, visit the login page, enter your credentials, and click **Resend verification link**.

Part 2: Password recovery (Forgot Password)



Step 1: Request Password Reset



Step 2: Set New Secure Password

If you forget your merchant password or suspect account compromise, use the self-service recovery flow to regain access immediately:

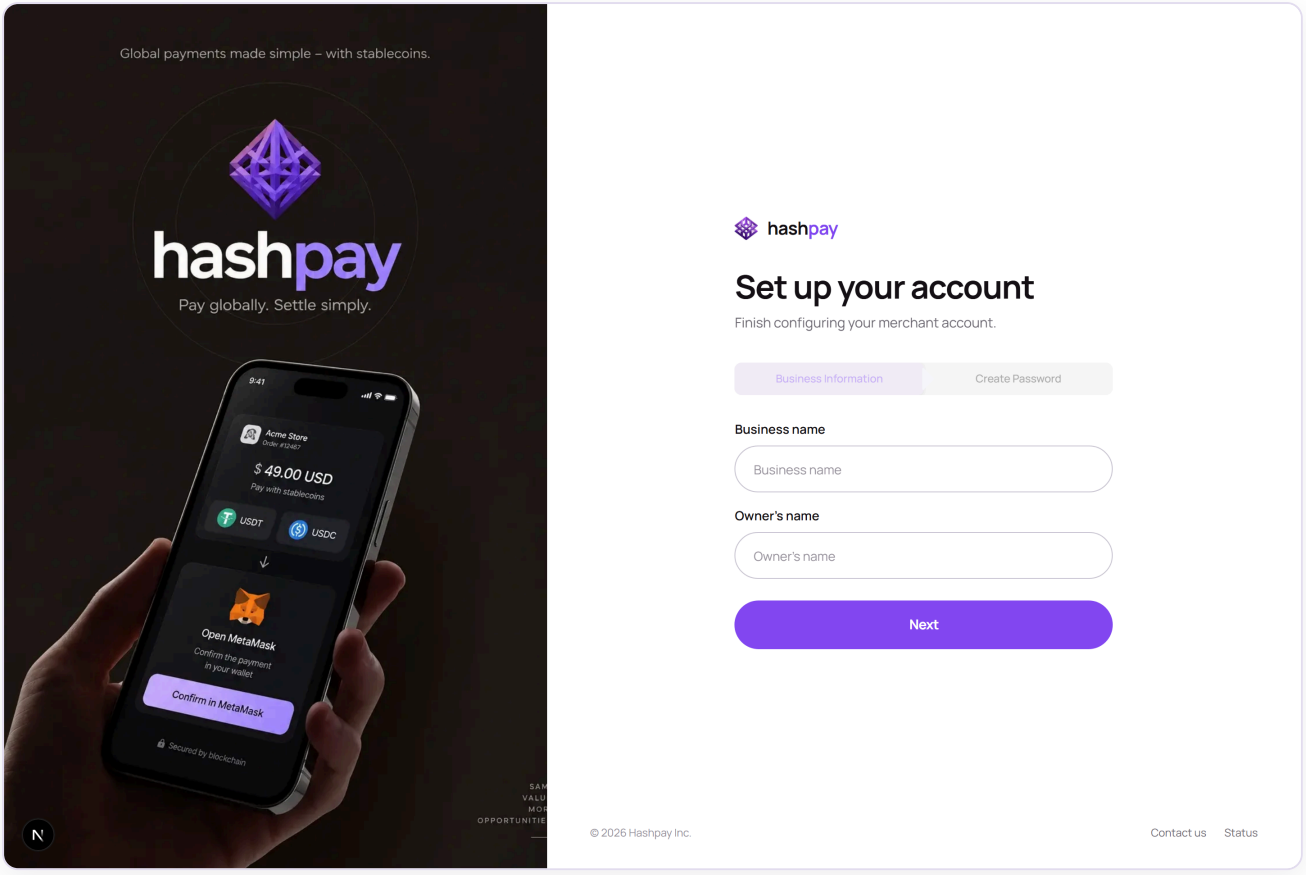
1. **Request Reset** — On the sign-in page, click **Forgot password?**.
2. **Enter Registered Email** — Type the exact email address registered with Hashpay and click **Send reset instructions**.
3. **Open Password Reset Email** — Open the password reset email and click the unique secure link (valid for 15 minutes).
4. **Set New Password** — Enter your new password meeting all complexity rules (min. 8 characters, uppercase, lowercase, numbers, symbols), confirm it, and click **Reset password**.
5. **Session Revocation** — For security, resetting your password automatically revokes all active browser sessions across all devices. Log in freshly with your new credentials.

> 🔒 **ACCOUNT SECURITY RECOMMENDATION**
>
> Always choose a unique passphrase that you do not use on any other service or crypto exchange. Consider using an enterprise password manager like 1Password or Bitwarden.

CHAPTER 5.0 · GETTING STARTED

Account Setup & Onboarding

> *Complete your commercial profile and establish operational credentials when invited to Hashpay by your enterprise administrator.*



Enterprise Merchant Onboarding Setup Screen

Who uses the account setup page?

This specialized onboarding flow is designed for corporate branch managers, franchise operators, or subsidiary store supervisors who are invited by a master company administrator. Unlike standard public self-registration, the parent legal entity and corporate billing tier are pre-configured by Hashpay enterprise support.

Step-by-step setup procedure

1. **Open Official Invitation Email** — Check your corporate email inbox for an official onboarding invitation from `support@hashpay.id`.
2. **Click Setup Link** — Tap the secure invitation link. It will open your branch's dedicated setup page.
3. **Verify Business & Outlet Name** — Review the pre-populated legal business name and outlet label (e.g., '*Outlet Sudirman - Cabang 04*'). Correct any branch details if necessary.
4. **Enter Manager Contact Details** — Provide the branch operational manager's name and direct contact WhatsApp number for operational coordination.

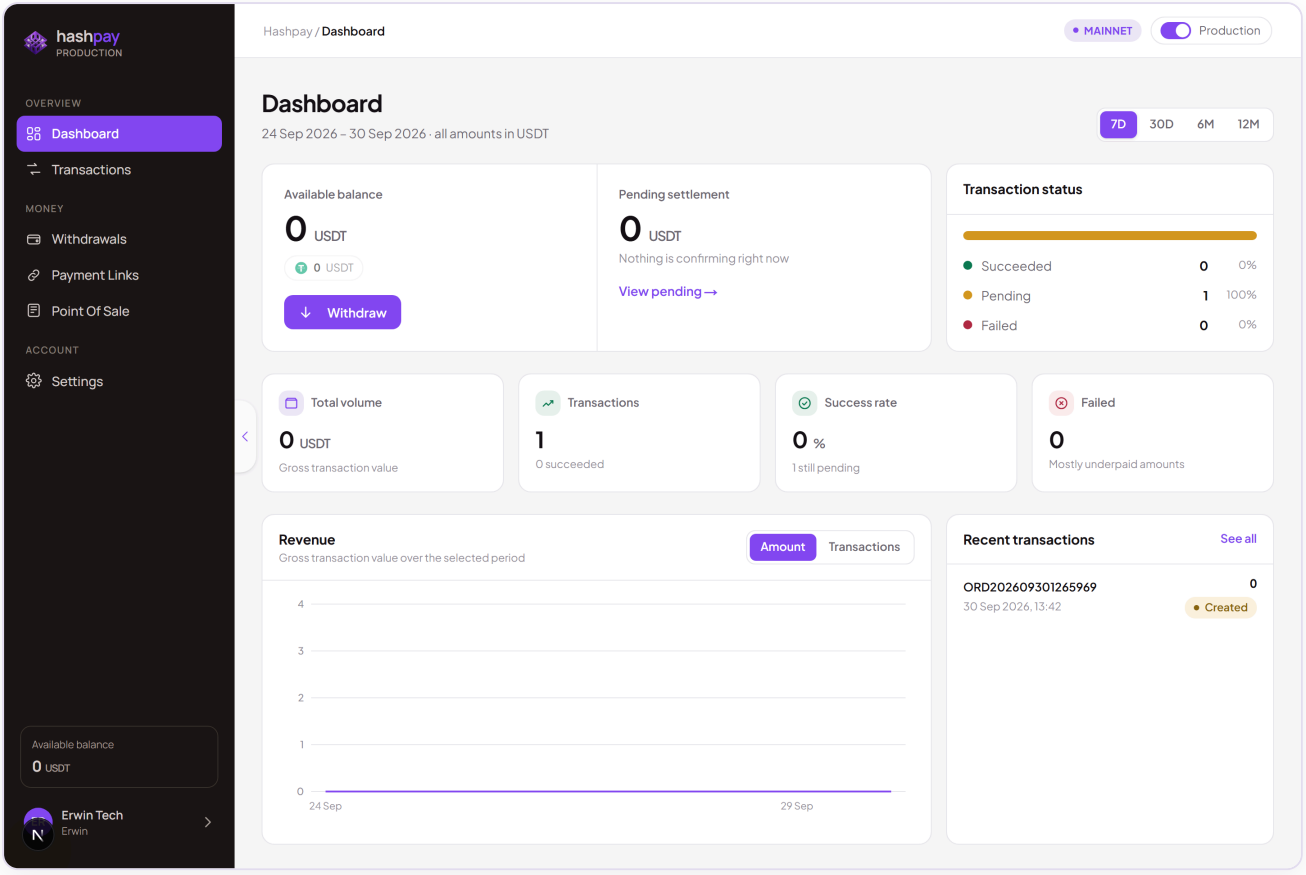
5. **Create Strong Password** — Establish a unique, secure password for this branch account to protect daily store revenues.
6. **Finish Setup** — Click **Finish Setup**. Your branch profile is immediately provisioned, and you are logged into the merchant dashboard.

> ⭐ **NEXT STEPS AFTER BRANCH ONBOARDING**
>
> Once inside the dashboard, your immediate priority is setting up store cash registers under **Point of Sale** and reviewing accepted payment tokens under **Settings** → **Payment Methods**.

CHAPTER 6.0 · OPERATIONS & SALES

Dashboard Overview & Monitoring

> *A real-time financial control center for tracking store sales performance, available cash balance, recent transaction ledgers, and cashier terminal health.*



Merchant Financial Dashboard Overview

Four key financial metric cards

At the top of your dashboard, four real-time summary cards provide immediate visibility into your store's financial liquidity and transaction health:

- **Available Balance (Saldo Tersedia)** — The total amount of fully confirmed, settled funds ready for immediate disbursement (quoted in USDT and estimated IDR). Click the prominent **Withdraw** button on this card to initiate a bank or crypto payout.
- **Pending Settlement (Menunggu Kliring)** — Customer payments that have been detected on the blockchain and marked successful, but are awaiting additional block confirmations (typically 1 to 3 minutes) before becoming fully spendable.
- **Transaction Success Ratio** — Visual circular indicator comparing Completed payments against Expired or Underpaid attempts, helping identify customer checkout drop-offs.
- **Gross Sales Performance** — Aggregated gross revenue, total transaction counts, and average customer spend over your selected reporting window.

Interactive sales analytics & charts

Analyze sales patterns to optimize store operating hours, inventory levels, and staffing:

- **Time Period Filtering** — Switch between **Today**, **7 Days**, **30 Days**, **6 Months**, or **12 Months** to analyze short-term velocity versus long-term seasonal growth.
- **Revenue vs. Transaction Toggle** — Toggle between total monetary volume (in IDR or USDT) and overall transaction count to observe whether sales growth is driven by order frequency or higher ticket sizes.
- **Environment Indicator Badge** — Located in the top header, this clearly indicates whether you are managing live real-money operations (**Production**) or simulating test transactions (**Sandbox**).

Live recent transactions ticker

The bottom half of the dashboard displays a live ticker of incoming customer payments updating automatically without page refreshes. Each row displays:

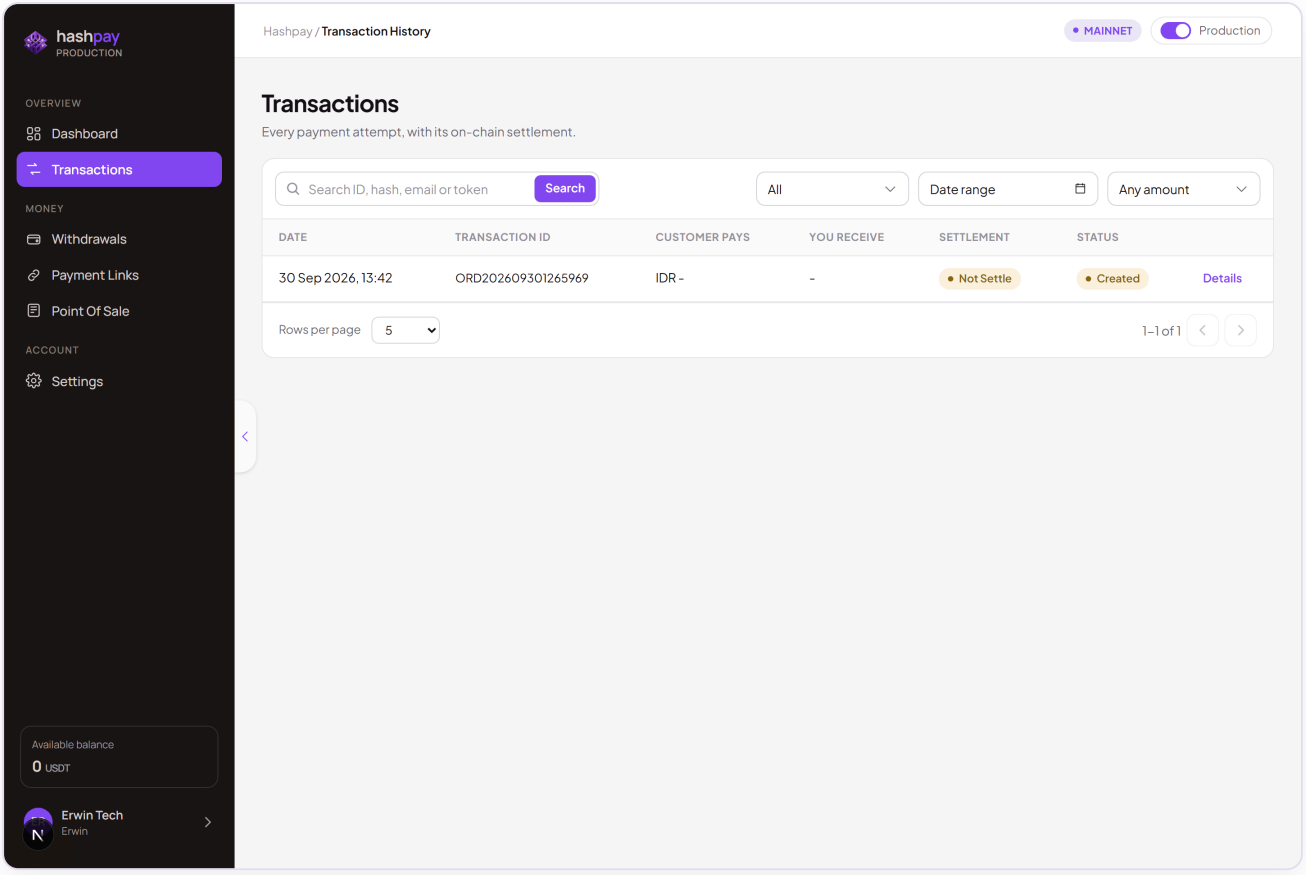
- **Order ID & Channel** — Unique tracking number and origin channel (POS Terminal, Payment Link, or Web Checkout).
- **Timestamp** — Exact date and second of payment confirmation.
- **Amount Paid** — The Rupiah invoice amount alongside the exact crypto amount (e.g., `Rp 250.000` / `15.34 USDT`).
- **Status Badge** — Clear status pill (**Paid**, **Pending**, **Underpaid**, or **Expired**). Clicking any row opens the full transaction detail drawer.

> ⭐ **TREASURY MANAGEMENT**
>
> Funds reflected in Available Balance can be withdrawn at any time to your registered Indonesian bank account in IDR or transferred on-chain to your crypto wallet. See **Withdrawals & payout** for detailed instructions.

CHAPTER 7.0 · OPERATIONS & SALES

Transactions Ledger & Auditing

> *A comprehensive, audit-ready financial ledger of every incoming customer payment, complete with blockchain explorer verification and accounting export tools.*



Complete Transaction History Ledger

Understanding the transaction ledger columns

Every customer payment processed across your physical POS registers, online payment links, or web checkouts is recorded immutably in this ledger:

- **Transaction / Order ID** — Unique commercial identifier (e.g., `ORD-20261022-8491`) used for customer inquiries and receipt reconciliation.
- **Date & Time** — Microsecond-accurate timestamp recording both payment initiation and final blockchain settlement.
- **Payment Method & Asset** — The customer's selected wallet (Trust Wallet, MetaMask, Phantom) and stablecoin asset (USDT or USDC on BNB Chain, Tron, Ethereum, or Solana).
- **IDR Amount & Crypto Received** — The exact invoice charge in Indonesian Rupiah and the exact quantity of digital tokens received.
- **Status Badge** — Real-time transaction state color-coded for quick visual auditing.

Complete transaction status dictionary

STATUS	MEANING & STATE	ACTION FOR MERCHANT STAFF
PAID / SUCCESS	The customer transferred the exact required crypto amount and the transaction is fully confirmed on-chain.	Transaction finalized. Fulfill the order, release goods, or issue the official purchase receipt.
PENDING	The order invoice was opened, but the customer has not yet transferred or the transfer is awaiting blockchain block confirmation.	Allow the customer up to 15 minutes to authorize the transfer from their mobile wallet.
UNDERPAID	The customer sent less crypto than the locked invoice total (commonly caused when customers withdraw from exchanges that deduct gas fees from the amount).	The system flags the shortfall. Contact the customer to transfer the remaining balance or issue a refund via support.
OVERPAID	The customer sent more crypto than required. The invoice marks Paid and the surplus is safely credited to your merchant balance.	Fulfill order normally. Merchant retains surplus or can refund excess to customer if requested.
EXPIRED	The 15-minute price lock window elapsed before payment was detected on-chain.	The invoice is closed. If the customer still wants to purchase, generate a fresh invoice with current live rates.

Verifying blockchain transactions (TxHash)

Whenever a customer requests cryptographic proof of payment or your finance team conducts an audit, click any transaction row to open the Detail Drawer. Click the **View on Blockchain Explorer** link to inspect the public ledger (BscScan, Tronscan, Etherscan, or Solscan) verifying:

- The sender's wallet address.
- The unique one-time deposit address assigned to this order.
- The exact block height and confirmation timestamp.
- The cryptographic Transaction Hash (TxHash).

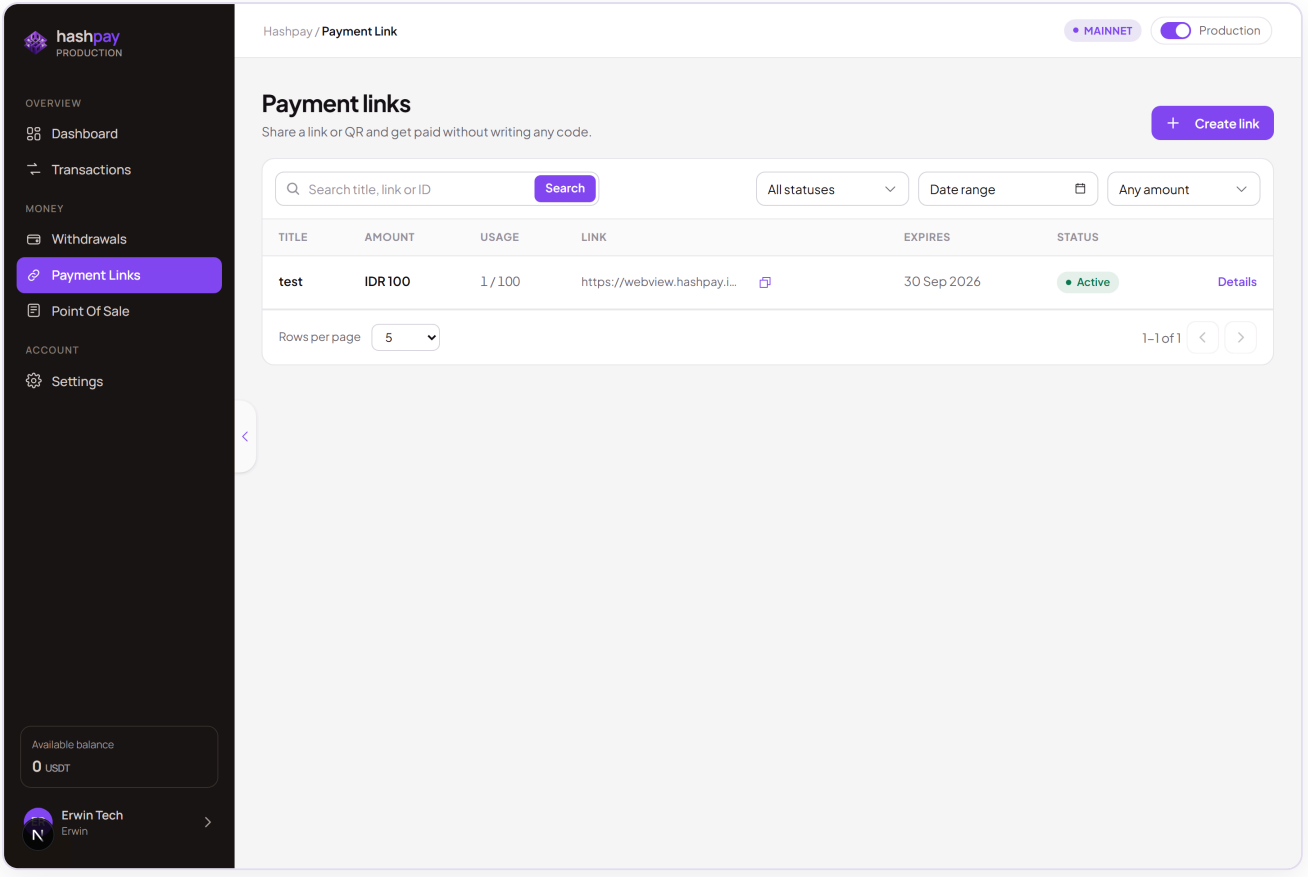
Search, filter & accounting exports

- **Quick Search** — Search instantly by Order ID, customer name, destination wallet, or blockchain TxHash.
- **Date Range Filter** — Filter by specific days, months, or custom financial quarters.
- **Export to CSV / Excel** — Click **Export** to download a structured spreadsheet containing complete transaction timestamps, exchange rates, fee deductions, and net received amounts for monthly corporate bookkeeping and tax filing.

CHAPTER 8.0 · OPERATIONS & SALES

Payment Links (Online Invoicing)

> *A Payment Link is a shareable checkout URL that lets you collect digital asset payments instantly without needing a full e-commerce website. Create custom bills, add multiple product items, and share links directly via WhatsApp, Email, or Social Media.*



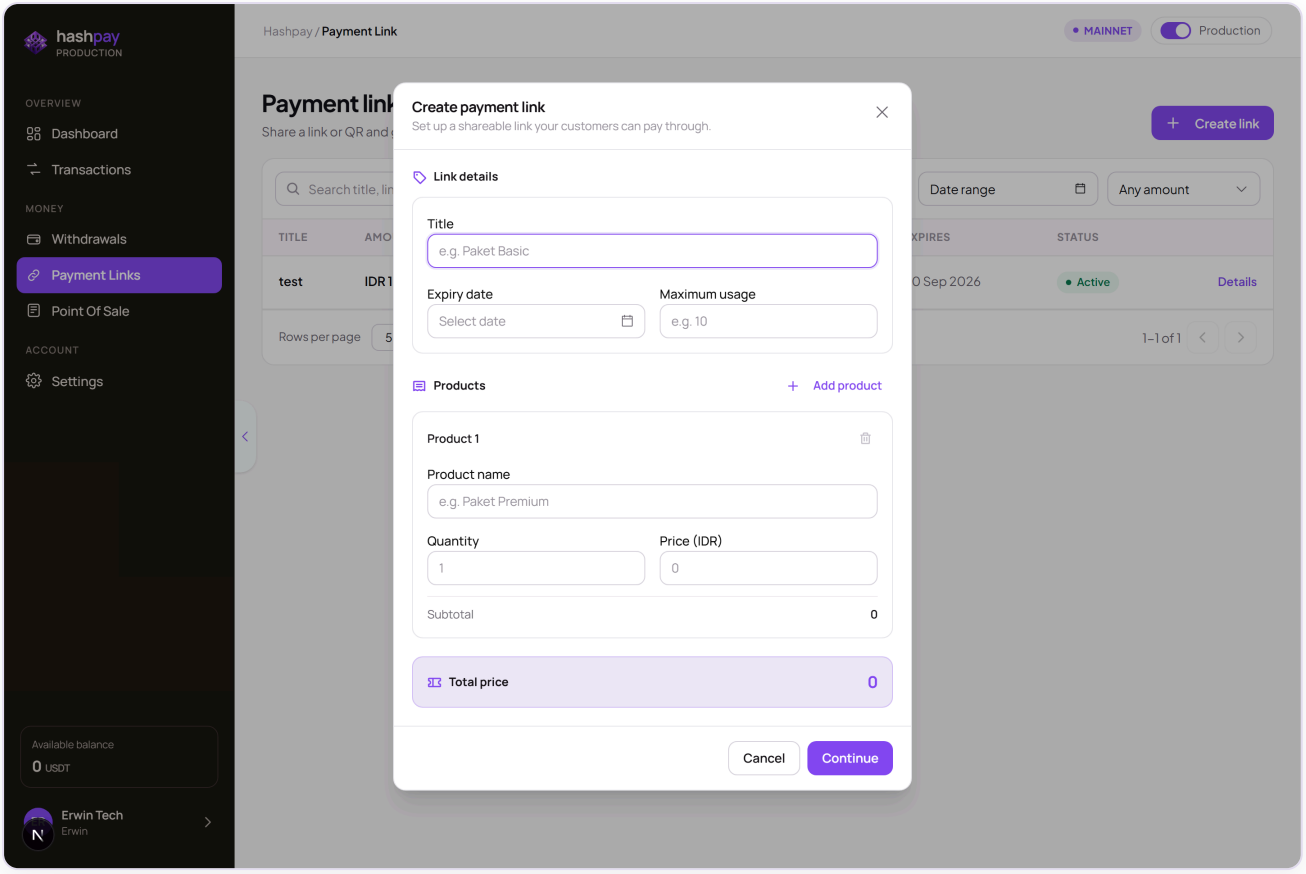
Payment Link Management in Merchant Dashboard

When to use Payment Links

Payment links are the fastest way to accept crypto payments without writing a single line of code. They are perfect for diverse commercial operations:

- **Chat Commerce (WhatsApp & Social DMs)** — Conclude customer negotiations directly in WhatsApp Business, Telegram, or Instagram DMs by sending a pre-calculated invoice link.
- **Service Invoicing & Remote Consulting** — Bill corporate clients, overseas clients, or consulting retainers with clear itemized line items in Indonesian Rupiah.
- **Pre-orders & Limited Drops** — Collect upfront deposits or full payments for custom-made goods, merchandise pre-orders, or ticket reservations.
- **B2B Wholesale Invoices** — Issue high-value commercial invoices settled safely in stablecoins with zero chargeback risks.

Step-by-step: Creating a Payment Link



Create Payment Link Modal

Follow these steps to generate a professional payment invoice from your dashboard:

1. **Navigate to Payment Links** — Log in to your merchant dashboard and click **Payment link** in the sidebar navigation.
2. **Click '+ Create Payment Link'** — Open the creation modal from the top-right button.
3. **Enter Title & Description** — Provide a recognizable invoice title (e.g., '*Order #1042 - Custom Leather Jacket*') and an optional description detailing the order for the buyer.
4. **Add Product Line Items (Multi-Item Support)** — Enter the item name, quantity, and unit price in Indonesian Rupiah (IDR). Click **+ Add Item** to attach multiple products or add delivery fees; the invoice subtotal and total calculate automatically. Ensure the total meets your account's minimum order threshold (e.g. Rp 10.000).
5. **Set Maximum Usage (Max Usage)** — Choose *1 time* for single-customer personal invoices, or *Unlimited* if you are selling a fixed-price item or digital ticket to many customers via a single shared link.
6. **Set Expiration Window** — Select link validity (e.g., 24 hours, 3 days, or 7 days). Once expired, the link automatically deactivates to prevent outdated crypto exchange rate calculations.
7. **Choose Settlement Destination** — Keep default to settle funds into your main dashboard balance, or enable **Direct Deposit** to sweep incoming payments directly to an external supplier or partner wallet.

> ⭐ **DIRECT DEPOSIT OPTION**
>
> Direct Deposit allows merchants to route customer payments directly to a specific external blockchain wallet upon confirmation, bypassing the manual withdrawal step. Ideal for paying dropshipping suppliers or revenue-share partners.

Sharing your link with customers

Once created, click the **Copy Link** button next to your invoice. You can distribute the link through any channel. Here is a recommended WhatsApp message template:

- **WhatsApp / Telegram** — Send a courteous message: '*Hello Kak! Thank you for ordering from [Store Name]. Here is your official secure payment link: https://pay.hashpay.io/link/xyz. You can pay using USDT/USDC in just a few taps. Let us know once completed!*'
- **Email Invoices** — Embed the clickable URL as a payment button inside your company's formal PDF invoice or quotation.
- **Social Media Bios & Stories** — Add multi-use links to your Instagram bio, TikTok profile, or promotional banners.

What your customer sees (The payment experience)

When your customer taps the payment link on their mobile phone or opens it in a desktop web browser:

1. **Branded Order Summary** — A clean checkout page displays your store brand, the invoice number, itemized product list, and total amount in IDR.
2. **Token & Network Selection** — The customer selects their preferred token (USDT or USDC) and payment network (BNB Chain, Tron, Solana, or Ethereum). The real-time crypto equivalent is locked for 15 minutes.
3. **Dynamic QR Code** — On mobile, the customer can tap a wallet deep link or scan the QR code. On desktop, they scan the on-screen QR code using their smartphone wallet camera.
4. **Instant Payment Detection** — As soon as the customer authorizes the transaction in their wallet, Hashpay detects the on-chain transfer within 2–5 seconds, turning the screen green with a success confirmation and digital receipt.

Tracking and managing payment link statuses

STATUS	MEANING	OPERATIONAL ACTION TO TAKE
Active	The link is live and awaiting customer payment	No action needed; wait for the buyer to transfer within the validity period.
Paid	The customer has successfully paid and funds are confirmed on-chain	The invoice is settled. Your team can safely pack and ship the order.
Expired	The validity period elapsed before payment was received	The link is closed. If the customer still wants to purchase, generate a fresh link with updated market rates.

Detailed link analytics & linked transactions

Clicking any row in your Payment Link table opens the modal in **Details Mode**. Here you can inspect comprehensive telemetry:

- **Shareable URL & QR Code** — Instant quick-copy and QR code display for rapid re-sharing to customers.
- **Usage Analytics** — Current usage count versus maximum allowed usage (e.g. 1/1 for single-use, or 42/Unlimited).
- **Dedicated Linked Transactions List** — A filtered real-time ledger showing all blockchain transactions completed specifically through this payment link, complete with customer payment timestamp, crypto token, and external TxHash block explorer links.

> 💡 **CANCEL OR CLOSE AN ACTIVE LINK**
>
> If a customer changes their mind or requests an order modification, you can click **Cancel Link** from the dashboard action menu to immediately deactivate the link and prevent accidental payments.

CHAPTER 9.0 · OPERATIONS & SALES

Webview Home: Order Details & Token Selection

> *A detailed walkthrough of the Hashpay Webview hosted checkout home screen: understanding the BillCard invoice header, merchant order credentials, why stablecoins (USDT & USDC) are used, and how to select optimal blockchain networks.*

Overview of the Webview checkout home screen

When a customer opens a payment link or clicks crypto checkout on an e-commerce website, the **Hashpay Webview** launches as a secure, hosted checkout modal. The interface is engineered to be fully responsive across mobile smartphones, tablets, and desktop workstations.

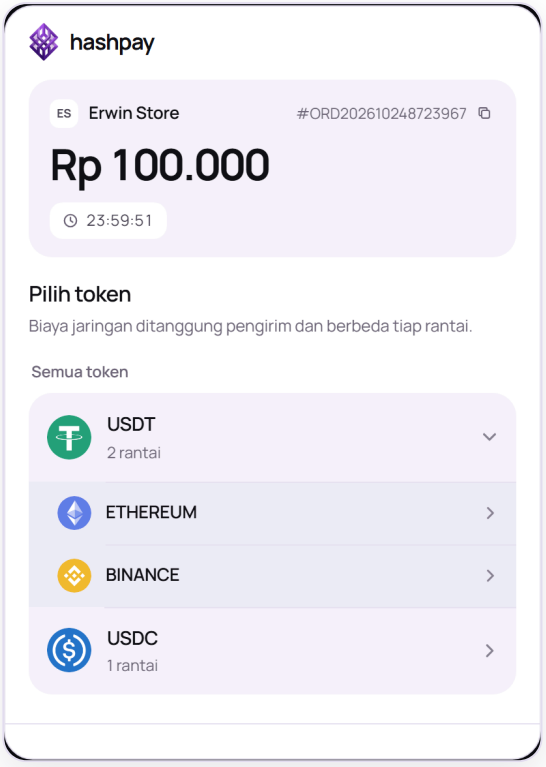


Figure 1: Hashpay Webview Home Screen showing BillCard order summary and expandable token selection

Anatomy of the order summary card (BillCard)

The top card of the checkout interface renders all essential invoice credentials directly from the merchant's backend order:

- **Merchant Store Name** — Displays the verified legal or trade name of the merchant (e.g. *Erwin Store*) to reassure the customer they are paying the legitimate vendor.
- **Order ID (`#ORD...`)** — A unique identifier assigned to the transaction (e.g. `#ORD202610243938676`). Customers can tap the copy icon next to the order number to save it for customer support or order tracking.

- **Total Bill Amount** — Rendered prominently in large typography in the merchant's local fiat currency (e.g. `Rp 100.000` or `$25.00 USD`).
- **Order Expiry Countdown** — Displays the remaining time before the merchant's checkout session expires (e.g. `23:59:53` or 24 hours), preventing stale checkout attempts.

Why stablecoins (USDT & USDC) instead of volatile crypto?

Traditional cryptocurrencies like Bitcoin or Ethereum fluctuate in price continuously, making them impractical for daily commercial checkout. Hashpay settles transactions using **digital dollar stablecoins** pegged 1:1 with the United States Dollar ($1.00 USD):

STABLECOIN	ISSUER & BACKING	KEY BENEFIT FOR CUSTOMERS
USDT (Tether)	Tether Operations Limited (Audited cash & US Treasury reserves)	The most widely liquid stablecoin globally, supported across every major crypto exchange and Web3 wallet.
USDC (USD Coin)	Circle Internet Financial (Audited cash reserves & short-term US Treasuries)	Institutional-grade regulatory compliance favored by fintech applications and corporate treasuries.

Selecting preferred token & blockchain network

Stablecoins do not live on a single network; they circulate across multiple blockchain networks. When tapping on a token group (e.g. **USDT 2 Chains**), the available blockchain channels expand:

BLOCKCHAIN NETWORK	TOKEN STANDARD	CONFIRMATION TIME	NETWORK GAS FEE PAID IN	RECOMMENDED FOR
BNB Smart Chain	BEP-20	2–3 seconds	BNB (~$0.02 – $0.08)	Daily retail and e-commerce shopping; lightning fast with negligible gas fees.
Tron Network	TRC-20	3–5 seconds	TRX (~$0.50 – $1.20)	High-liquidity international USDT transfers across Asian and European corridors.
Solana	SPL	Sub-second (<1s)	SOL (<$0.01)	Instant checkout via mobile Solana wallets such as Phantom.
Ethereum Mainnet	ERC-20	15–30 seconds	ETH (~$2.00 – $10.00)	High-value commercial transactions and institutional custodial settlements.

> 💡 **UNDERSTANDING NETWORK GAS FEES**
>
> Network miner gas fees are paid by the sender's wallet to decentralized blockchain validators and vary depending on the chosen chain. Choosing BNB Smart Chain or Tron results in substantially lower gas fees than Ethereum Mainnet.

CHAPTER 10.0 · OPERATIONS & SALES

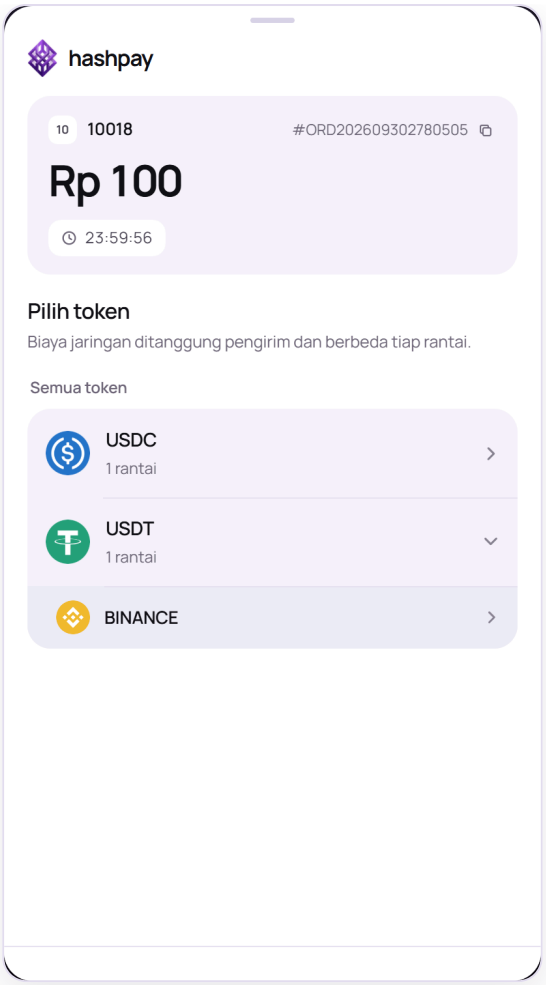
Customer Checkout Experience

> *A detailed walkthrough of what your customers see and experience when paying via Hashpay hosted checkouts, payment links, or cashier QR codes.*

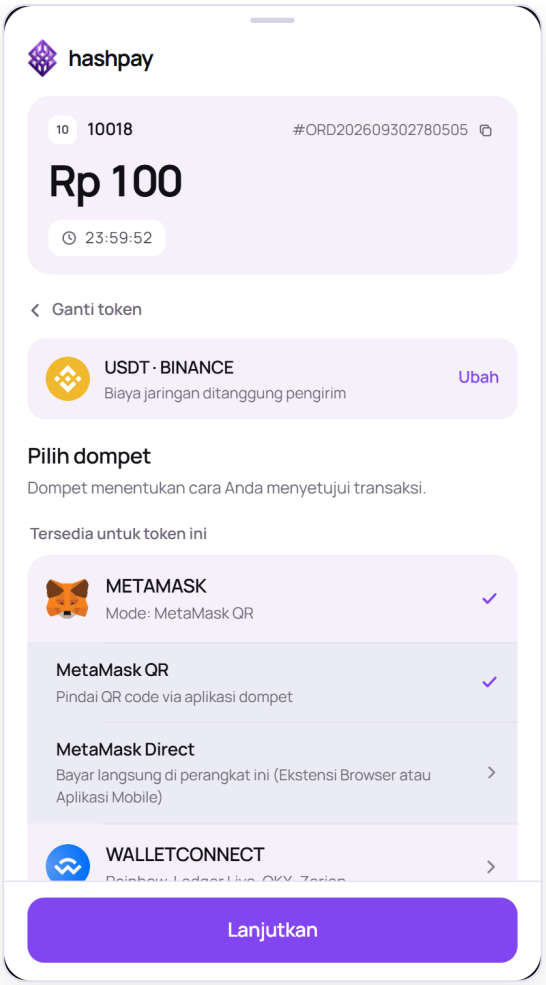
The four simple steps for customers

The Hashpay checkout interface is designed for zero confusion, guiding customers through token selection, network choices, and QR scanning in under 30 seconds:

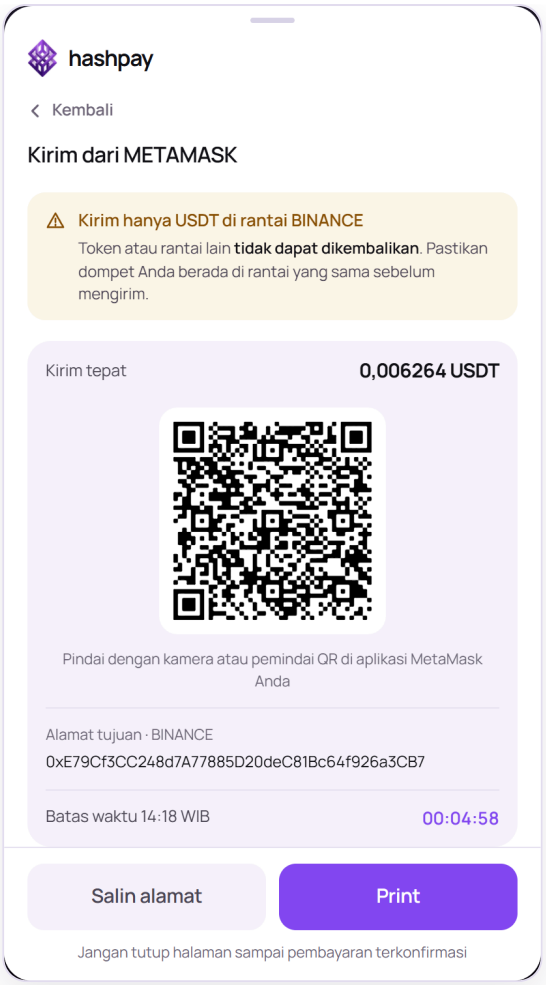
1. **Order Review & Token Choice** — The customer opens the payment link or looks at the cashier screen. They verify the store name, order ID, and IDR total, then select their preferred stablecoin (USDT or USDC).
2. **Blockchain Network Selection** — The customer chooses the blockchain network where they hold funds (e.g., BNB Smart Chain, Tron, Solana, or Ethereum). Networks like BNB Chain and Tron are highlighted for near-zero gas fees.
3. **Wallet Option (Mobile QR or Browser Extension)** — The customer chooses their wallet method. On mobile, tapping their wallet opens the app directly; on desktop, they can scan the QR with any wallet or connect via MetaMask extension.
4. **Scan QR Code & Confirm Payment** — An EIP-681 standard QR code is displayed alongside the exact deposit address and a 15-minute price lock countdown. The customer scans and taps 'Confirm' in their wallet.



Step 1 & 2: Token and Blockchain Network Selection



Step 3: Selecting Wallet Method (MetaMask QR, Trust Wallet, etc.)



Step 4: Dynamic Payment QR Code with 15-Minute Countdown

Core guarantees of the checkout screen

- **Exact Amount Calculation** — The exact token quantity is calculated from live exchange rates and locked for 15 minutes, protecting both buyer and seller from crypto market volatility.
- **EIP-681 Standard QR Codes** — When scanned, the QR code automatically populates the smart contract address, recipient wallet, and exact amount in the customer's wallet app, eliminating manual typing mistakes.
- **Real-Time On-Chain Detection** — Hashpay's node infrastructure watches blockchain mempools in real time. As soon as the transfer is broadcast, the checkout screen automatically transitions to a green 'Payment Successful' screen without manual refreshing.

> ⚠ **IMPORTANT PAYMENT WARNING FOR BUYERS**
>
> Customers must send the exact crypto amount specified on the screen. If sending from an exchange wallet (like Indodax or Binance), the customer must ensure the exchange's withdrawal fee is added on top so the full invoice amount arrives at Hashpay.

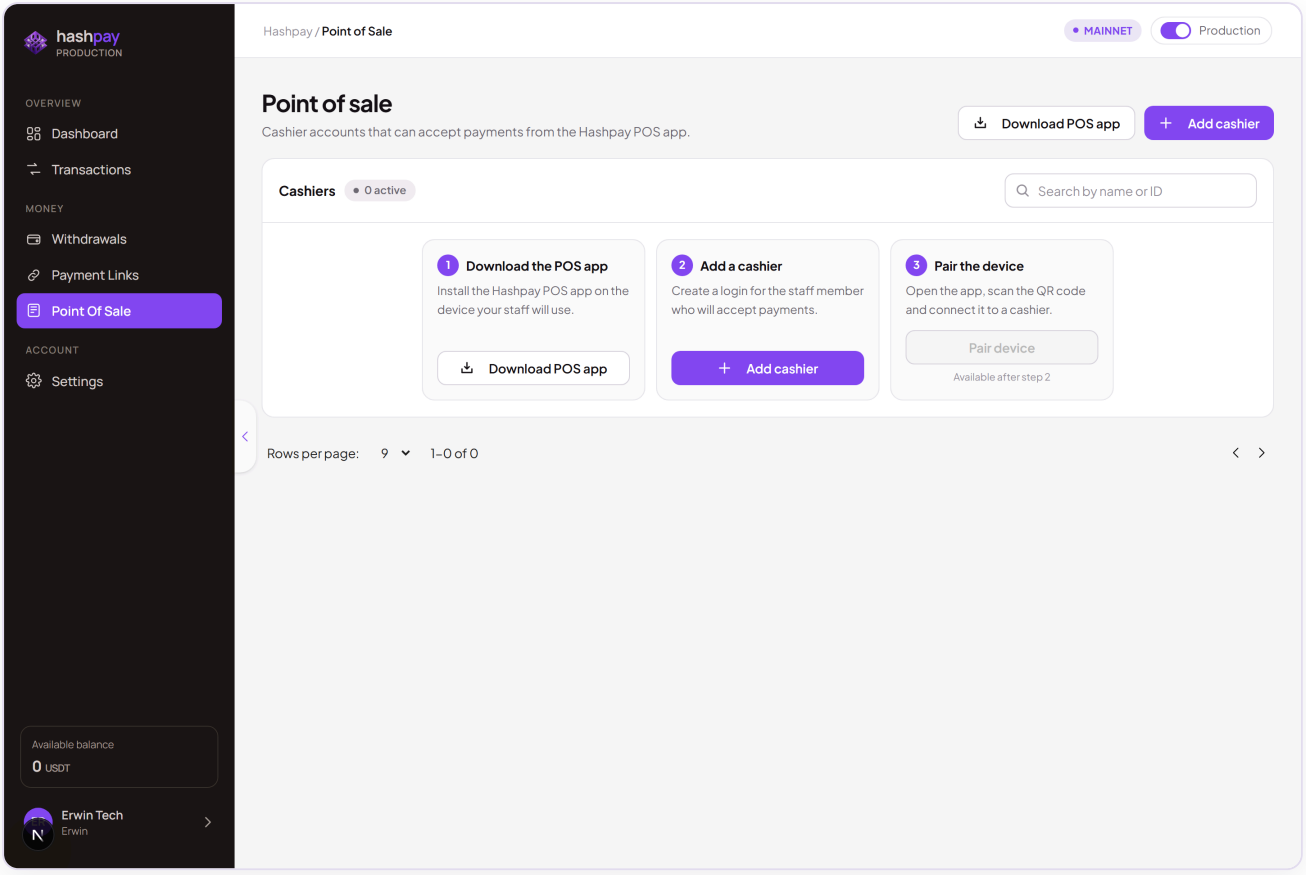
Cashier Counter FAQ (Handling customer questions)

- **'How long does the payment take?'** — On BNB Chain, Tron, and Solana, transfers confirm within 2 to 5 seconds. On Ethereum, confirmation typically takes 15 to 30 seconds.
- **'What happens if the 15-minute countdown expires?'** — If the customer has not transferred, the rate unlocks. The customer can simply tap 'Refresh Rate' to generate a fresh 15-minute payment window.
- **'Can customers pay from international wallets?'** — Yes! Hashpay accepts standard stablecoins from any self-custodial wallet worldwide (Trust Wallet, MetaMask, Phantom, Coinbase Wallet, Ledger, etc.).

CHAPTER 11.0 · OPERATIONS & SALES

Point of Sale (POS) Management

> *Set up cashier stations, pair Android EDC terminals or mobile devices, download the official POS APK, monitor live cashier station telemetry, and manage store shifts from your merchant dashboard.*



Point of Sale (POS) Terminal Management Dashboard

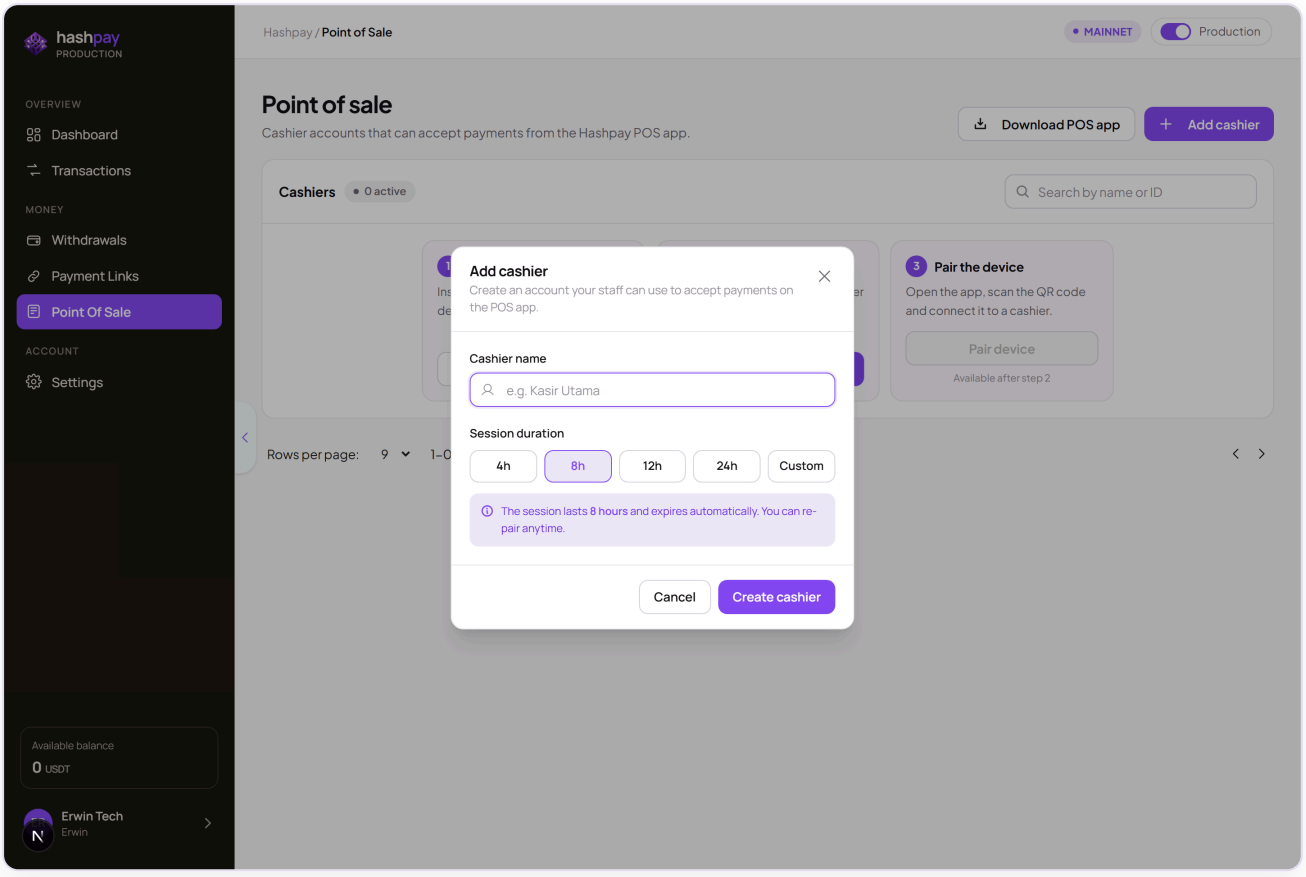
Download the official POS application

The official in-store cashier terminal application is **HashpayPOS.apk (v1.1.2)**. It is built natively for Android (Kotlin & Jetpack Compose) and optimized for dedicated smart EDC hardware with built-in thermal printers as well as standard Android smartphones and tablets.

HARDWARE CATEGORY	SUPPORTED MODELS	RECOMMENDED USE CASE
Smart EDC Terminals	Sunmi (V2, V2 Pro, V2s, T2 Mini), iMin (Swift, D1), Pax (A920)	High-volume retail counters, cafes, restaurants with instant 58mm thermal receipt printing.
Android Smartphones	Any Android device running Android 8.0 or newer	Pop-up stores, food trucks, mobile delivery drivers, and service counters.
Android Tablets	Samsung Galaxy Tab, Lenovo Tab (10-inch or larger)	Front-desk counter displays, boutique showrooms, hotel concierge desks.

1. **Access Download Link** — From the Point of Sale page in your web dashboard, click the **Download POS app** button, or browse directly to `https://dashboard.hashpay.id/install-pos` on your Android device.
2. **Sideload the APK** — When prompted by Android security, allow downloads from your browser and enable **'Install from unknown sources'**.
3. **Launch the App** — Open **Hashpay POS**. On first launch, the app displays the terminal pairing screen ready to scan or enter code.

Create cashier stations & configure shifts



Cashier Station Creation & Shift Configuration Modal

Every physical cash register or staff shift operates under an isolated cashier profile. This allows store owners to track revenues per counter and per employee shift:

1. **Click '+ Add cashier'** — Open the creation modal at the top of the Point of Sale page (`/point-of-sale`).
2. **Enter Station Name** — Assign an easily recognizable name (e.g., *'Kasir Utama 1'*, *'Bar Lantai 2'*, or *'Takeaway Booth'*).
3. **Select Shift Session Duration** — Choose from preset shift lengths: **4 hours**, **8 hours**, **12 hours**, **24 hours**, or enter a **Custom duration** (in hours) matching your store's employee roster. When the duration elapses, the session automatically prompts the cashier to close and print the shift summary.
4. **Create Station** — Click **Create cashier**. The terminal pairing modal will appear immediately displaying both a QR code and an 8-character manual pairing code.

Cashier station cards & live telemetry

The Point of Sale overview presents each cashier station as an informative telemetry card, giving managers real-time operational visibility:

CARD ELEMENT / ACTION	DESCRIPTION	OPERATIONAL PURPOSE
Station Name	Custom label assigned during creation	Identifies the counter or physical register location.
Cashier ID (e.g. csh_live_9a8f...)	Unique system identifier with quick-copy icon	Used for IT auditing, multi-store tracking, and support inquiries.
Status Badge (Active / Inactive)	Live device connection indicator	**Active (Green)** indicates a physical terminal device is currently logged in and actively serving customers. **Inactive (Gray)** indicates no device is connected or the previous shift logged out.
Shift Expiration (expiredAt)	Exact timestamp when current shift closes	Shows managers when the staff roster ends and alerts if a shift is running overdue.
Pairing Button (QR icon)	Generates instant pairing credentials	Opens the pairing popup displaying a fresh QR code and 8-character manual code (120s TTL).
Edit Button (Pencil icon)	Edit station parameters	Update the station name or extend/adjust the shift session duration without deleting historical sales.
Delete Button (Trash icon)	Safely decommission station	Permanently removes the cashier station profile once all shifts are closed and audited.

Pair a terminal (Two flexible methods)

You can securely connect any Android device to a cashier station using either of two methods:

- **Method 1: Scan QR Code (Fastest — 5 Seconds)** — On the Hashpay POS app, tap **Scan QR** and point the device camera at the pairing QR code displayed in your merchant dashboard. The terminal connects and authenticates instantly.
- **Method 2: 8-Character Manual Code** — If the device camera is unavailable, lighting is poor, or you are configuring a terminal remotely, tap **Enter Pairing Code** on the app and type the 8-character alphanumeric code

(e.g., `OYA8DZCT`). The code is valid for 120 seconds to prevent pairing hijack attacks; click **Refresh Code** in the dashboard if it expires.

Cashier security & permission isolation

To protect store owners from employee theft or operational errors, POS terminals operate in strict cashier isolation. Here is what cashiers can and cannot do:

ACTION / CAPABILITY	CASHIER TERMINAL PERMISSION	MERCHANT OWNER DASHBOARD
Ring up sales & enter Rupiah bill	Allowed (Yes)	Allowed (Yes)
Display dynamic payment QR to customer	Allowed (Yes)	Allowed (Yes)
Print & reprint receipts	Allowed (Yes)	Allowed (Yes)
Close shift & view shift total	Allowed (Yes)	Allowed (Yes)
Withdraw merchant funds / Disburse to bank	Strictly Forbidden (No)	Allowed (Yes)
View or modify bank account details	Strictly Forbidden (No)	Allowed (Yes)
View API Secret Keys or Webhook secrets	Strictly Forbidden (No)	Allowed (Yes)
Change MDR fee or pricing settings	Strictly Forbidden (No)	Allowed (Yes)

🔒 **CASHIER SAFETY GUARANTEE**

Store cashiers have zero access to your money. Even if a physical EDC terminal is stolen from your shop counter, the thief cannot withdraw a single Rupiah or access your company's bank accounts.

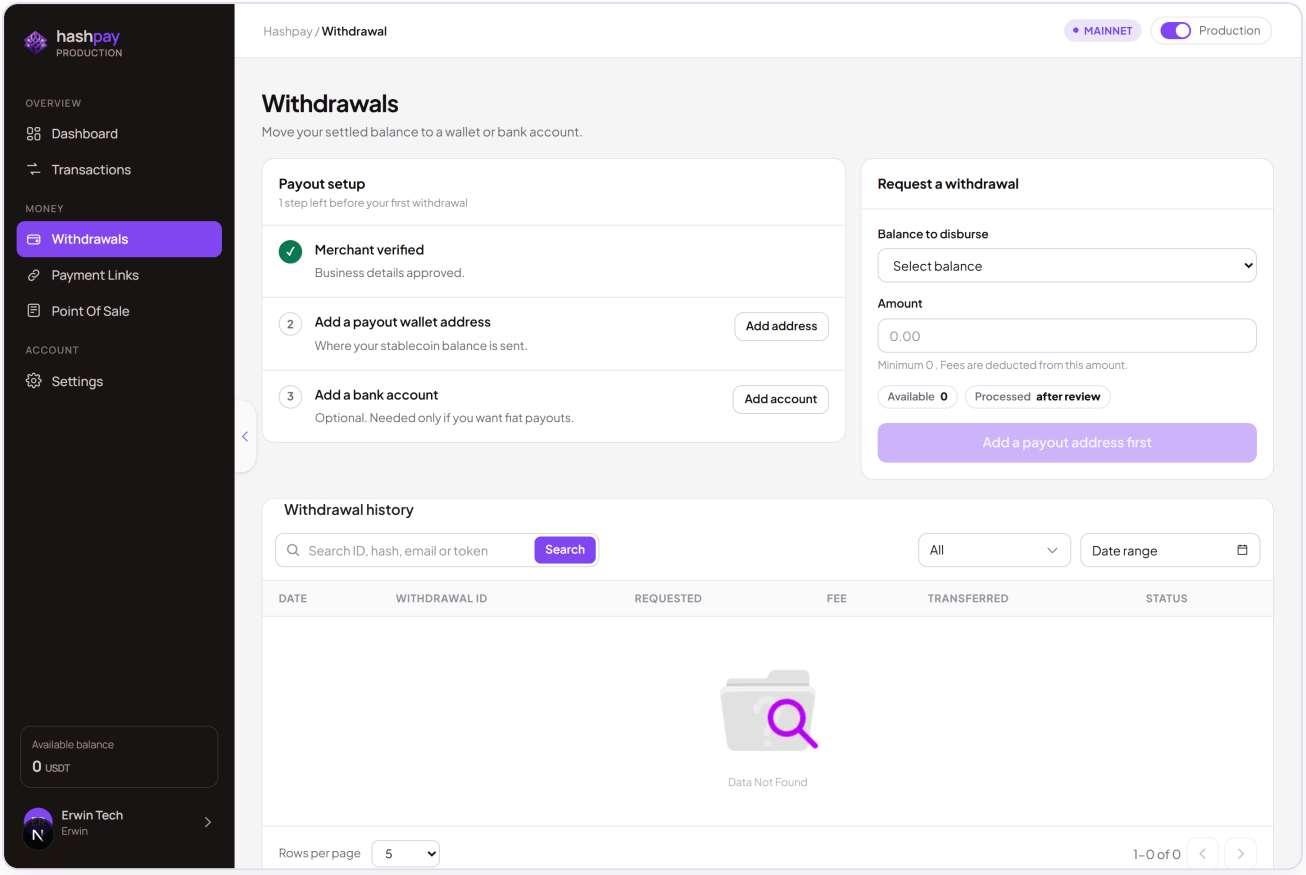
💡 **CASHIER STAFF TRAINING**

For terminal-side step-by-step cashier training (keypad operation, handling underpayments, reprinting paper receipts, and closing shifts), refer your store staff to the **Cashier Guide**.

CHAPTER 12.0 · OPERATIONS & SALES

Withdrawals & Payout

> *Disburse settled merchant balances into your Indonesian commercial bank account in IDR or directly to your self-custody crypto wallet on-chain.*



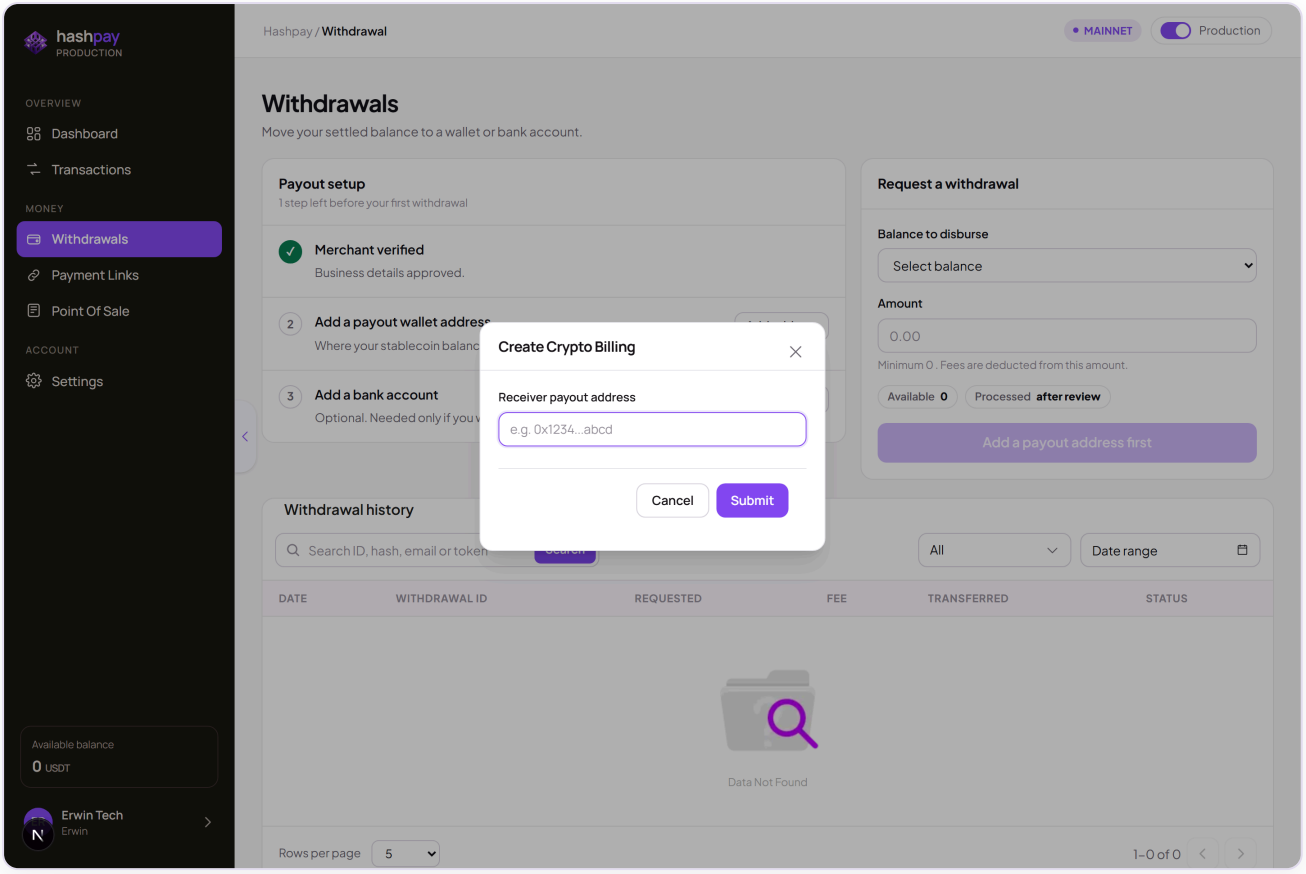
Withdrawals & Payout Management Dashboard

Dual-corridor payout options

Hashpay offers two flexible disbursement corridors designed to support both conventional Indonesian corporate banking and Web3 treasury management:

- **Corridor 1: Local Indonesian Bank (IDR Rupiah)** — Instant fiat disbursement directly to over 140+ Indonesian commercial and regional banks (BCA, Mandiri, BRI, BNI, Permata, CIMB Niaga, Danamon, Panin, BTN, BSI, etc.) and major e-wallets. Powered by licensed payment gateway partners (INCASO / EPAY) operating 24/7 via BI-FAST and real-time interbank switching networks.
- **Corridor 2: Crypto Wallet On-Chain (USDT / USDC)** — Direct blockchain settlement into your company's self-custody cold storage (Ledger, Trezor), Web3 wallet (MetaMask, Trust Wallet), or corporate exchange accounts (Indodax, Tokocrypto, Binance) across BNB Chain, Tron, Ethereum, or Solana.

Payout destination prerequisites & approval lifecycle



Add Payout Destination Modal

To maintain financial integrity and anti-money laundering (AML) compliance, payout destinations must be whitelisted before funds can be disbursed:

- **Crypto Address is MANDATORY (Blocking Requirement)** — Every merchant account must register at least one approved crypto recipient address (USDT / USDC) to activate withdrawals.
- **Local Bank Account is OPTIONAL** — Adding an Indonesian Rupiah bank account is optional and can be registered whenever you wish to disburse funds in fiat currency.

Each registered bank account or crypto address passes through an approval lifecycle displayed as status badges in your destination table:

DESTINATION STATUS BADGE	MEANING & STATE	ACTION / NEXT STEP
sent (Yellow Badge)	Registration submitted and queued for automated compliance verification.	Allow 1–2 minutes for automated screening.
approved (Green Badge)	Destination verified and officially whitelisted.	Ready! You can immediately select this destination for withdrawals.
rejected (Red Badge)	Account name mismatch or invalid blockchain address format.	Check the failure reason, correct your details, and re-submit.

Real-time bank account validation (Cek Rekening)

Misdirected bank transfers caused by typos can severely disrupt business cash flow. To eliminate this risk, Hashpay includes automated **Real-Time Account Validation (Cek Rekening)**:

1. **Select Destination Bank** — Choose your bank from the dropdown list of 140+ Indonesian financial institutions.
2. **Input Account Number** — Type your bank account number.
3. **Automated Inquiry** — The system queries the national interbank database in real time and displays the official registered account holder name.
4. **Verify & Save** — Confirm that the account holder name matches your company or business representative name, then click Save. The account enters verification and will be ready once approved.

Submitting a withdrawal request & fee quote lock

Follow these steps to submit a withdrawal request from your dashboard:

1. **Initiate Request** — Click **Withdraw Funds** on the dashboard overview or the Withdrawals page.
2. **Select Payout Channel** — Choose **Local Bank (IDR)** or **Crypto Wallet**.
3. **Select Whitelisted Destination** — Choose an address or bank account from your pre-approved list.
4. **Select Payout Network (Crypto Only)** — If withdrawing crypto, select your preferred network (**BNB Chain**, **TRON**, **ETHEREUM**, or **SOLANA**). The selected network determines the network gas fee.
5. **Enter Amount & Debounced Quote Lock** — Enter the amount up to your **Available Balance**. Hashpay calculates a debounced real-time fee quote with a locked **Quote ID (`quoteId`)**, guaranteeing that fees will not slip between quote generation and execution.
6. **Authorize with 2FA** — Enter your 6-digit Google Authenticator code to finalize and dispatch the transfer.

Transparent fee calculations & simulation examples

Hashpay maintains 100% transparent fee structures with zero hidden currency conversion margins. Review these real-world disbursement examples:

DISBURSEMENT SCENARIO	GROSS AMOUNT	DEDUCTIONS & FEES	NET RECEIVED AMOUNT	SETTLEMENT SLA
IDR Bank Transfer (e.g. BCA via BI-FAST)	Rp 10.000.000	Flat Bank Transfer Fee: Rp 2.500	Rp 9.997.500	Instant (1 to 3 minutes, 24/7)
Crypto Payout (BNB Chain BEP-20)	1,000.00 USDT	Network Gas Fee: ~0.05 USDT	999.95 USDT	Instant (1 to 2 minutes)
Crypto Payout (Tron TRC-20)	1,000.00 USDT	Network Gas Fee: ~1.50 USDT	998.50 USDT	Instant (1 to 3 minutes)
Crypto Payout (Ethereum ERC-20)	5,000.00 USDT	Network Gas Fee: ~5.00 - 15.00 USDT	4,985.00 USDT	15 to 30 minutes

Withdrawal lifecycle & transaction statuses

STATUS	MEANING & STATE	ACTION / NEXT STEP
sent	Withdrawal request is actively executing via BI-FAST switching or being broadcast to the blockchain.	Funds are in transit. Typical delivery takes 1 to 3 minutes.
approved	Funds have successfully credited your bank account or crypto wallet.	Completed! Download the transfer receipt or click the TxHash link to inspect on a blockchain explorer.
rejected	Bank gateway reported destination closed, or extreme blockchain network congestion prevented broadcast.	100% of the funds are automatically refunded back into your Available Balance immediately.

⚠ **IRREVERSIBLE BLOCKCHAIN PAYOUTS**

Blockchain transfers are cryptographically final. Always verify the first and last four characters of destination crypto addresses. Local IDR bank transfers operate 24/7/365 with zero holiday cut-off times.

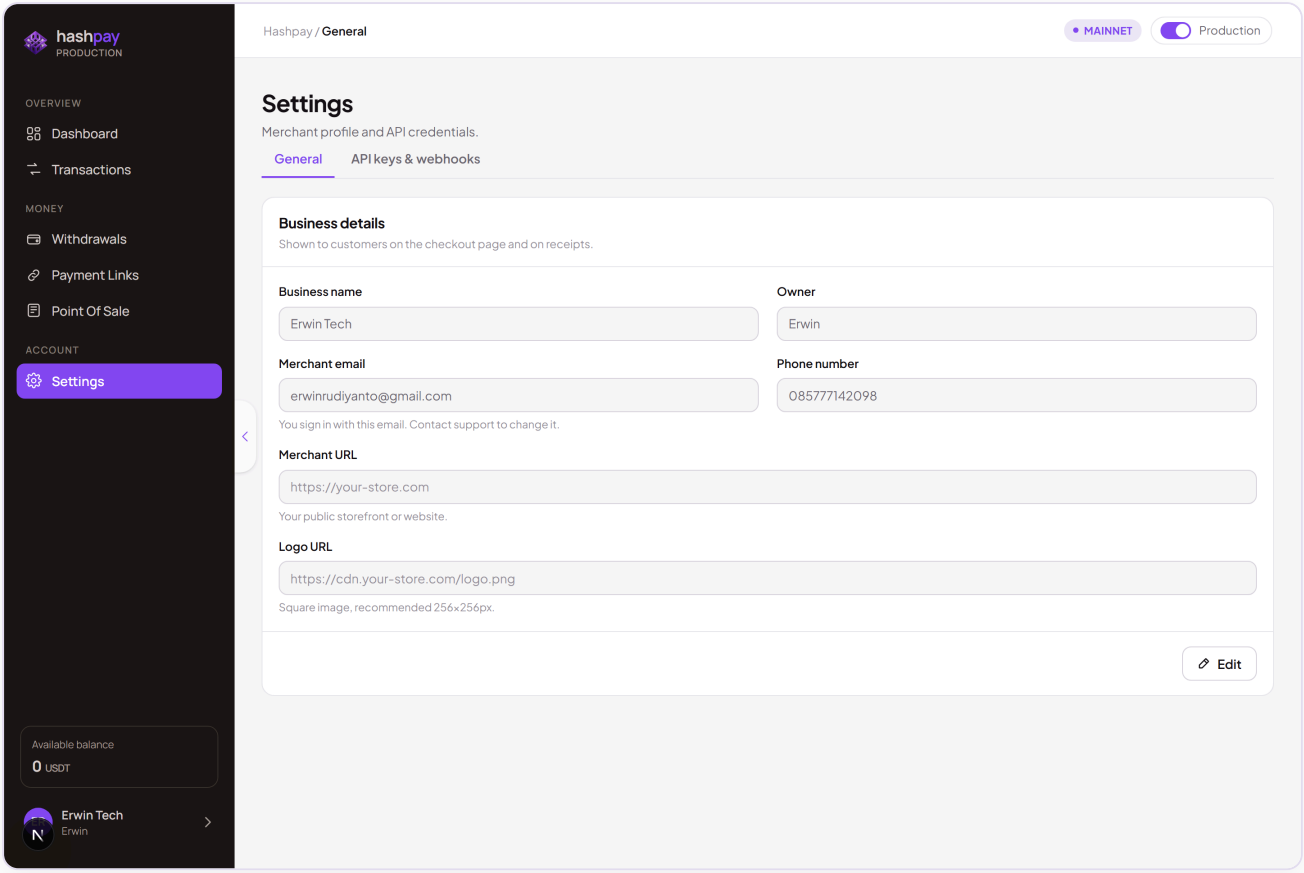
CHAPTER 13.0 · SETTINGS & CHANNELS

Settings & Channel Configuration

> *Configure your business profile, review network MDR fees and minimum order limits, select accepted customer payment tokens, and manage API credentials.*

Settings in the Hashpay Merchant App are organized into two primary sections: **Merchant Setting** (`/setting/merchant-setting`) for business data, credentials, and fee structures, and **Payment Methods** (`/setting/payment-method`) for customer checkout token customization.

Merchant Setting: General business profile



General Business Profile Settings

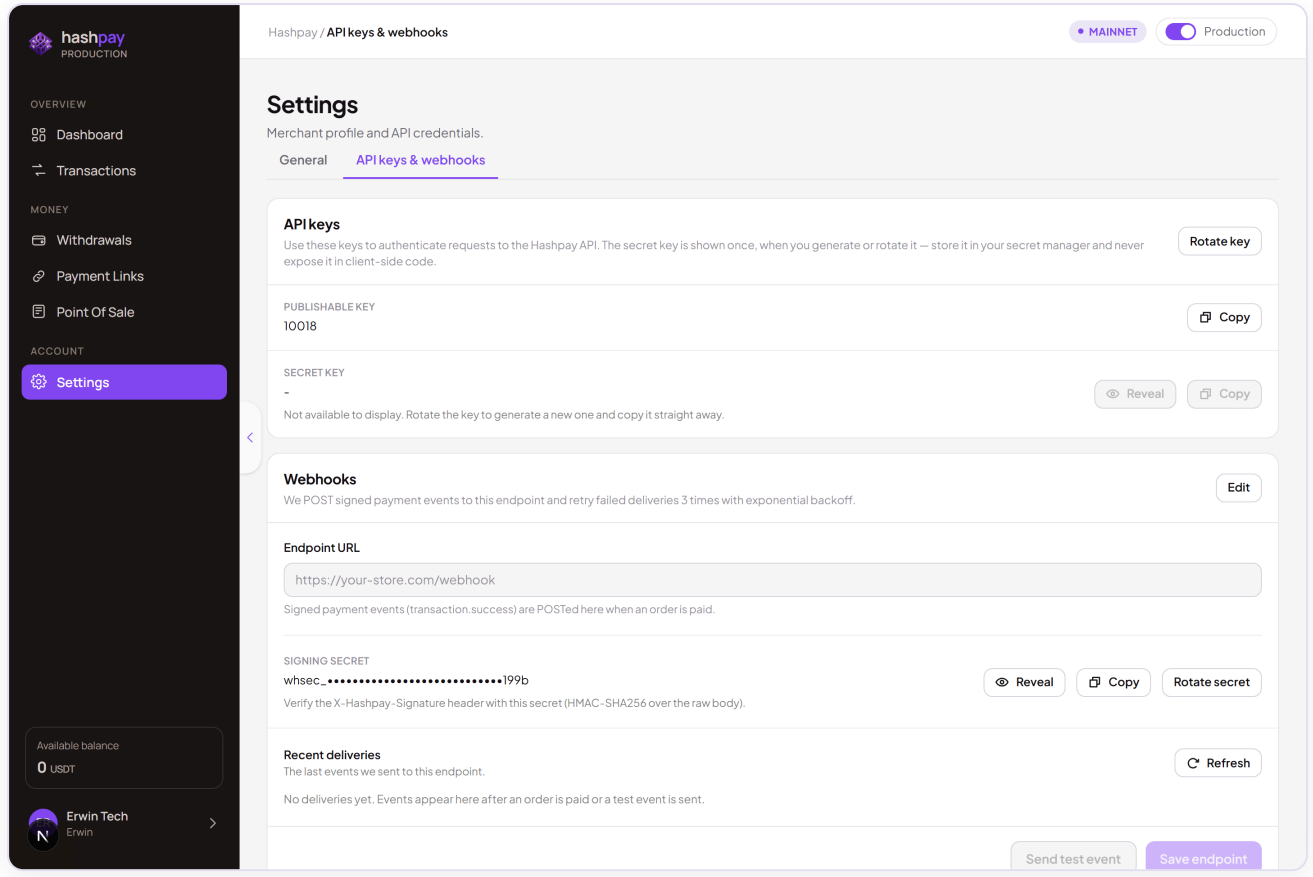
Located under `/setting/merchant-setting` in the **General** tab, your store profile defines your commercial branding and customer contact points across all touchpoints:

- **Merchant & Brand Name** — The commercial business brand displayed on customer checkout screens, WhatsApp invoice headers, and printed POS cashier receipts.
- **Business Category** — Classification of your trade (F&B, Retail, Fashion, Electronics, Digital Services, Hospitality, etc.) used for compliance reporting.
- **Official Contacts** — Registered business email and WhatsApp customer service number for settlement notifications and support escalation.

- **Physical Address** — Registered business headquarters or main physical branch outlet address.

Profile updates automatically sync across all active POS terminals and live payment links in real time. Click **Save Changes** after editing.

Merchant Setting: API keys & webhooks management



API Keys & Webhooks Management

Located under `/setting/merchant-setting` in the **API keys & webhooks** tab, this screen provides developers and e-commerce operators with the necessary credentials to integrate Hashpay:

- **Merchant ID (Public)** — Safe public identifier used for frontend widgets and customer payment links.
- **Secret API Key (Private)** — Confidential authentication key used by your backend server or e-commerce plugin.
- **Self-Service Key Rotation** — If staff leaves or credentials are accidentally exposed, click **Regenerate Key** to revoke old keys and issue new ones instantly.
- **Webhook Endpoint & Secret** — Configure the URL where your server receives real-time payment success notifications, complete with cryptographic signature verification.
- **Test Webhook** — Trigger simulated test events to verify your server integration with a single click.

> 🔒 **CREDENTIAL SECURITY**
>
> Keep your Secret API Key and Webhook Secret strictly confidential. Store them only in secure server environment variables. See Account & keys for detailed security protocols.

Merchant Setting: Fees & minimum order limits (Read-Only)

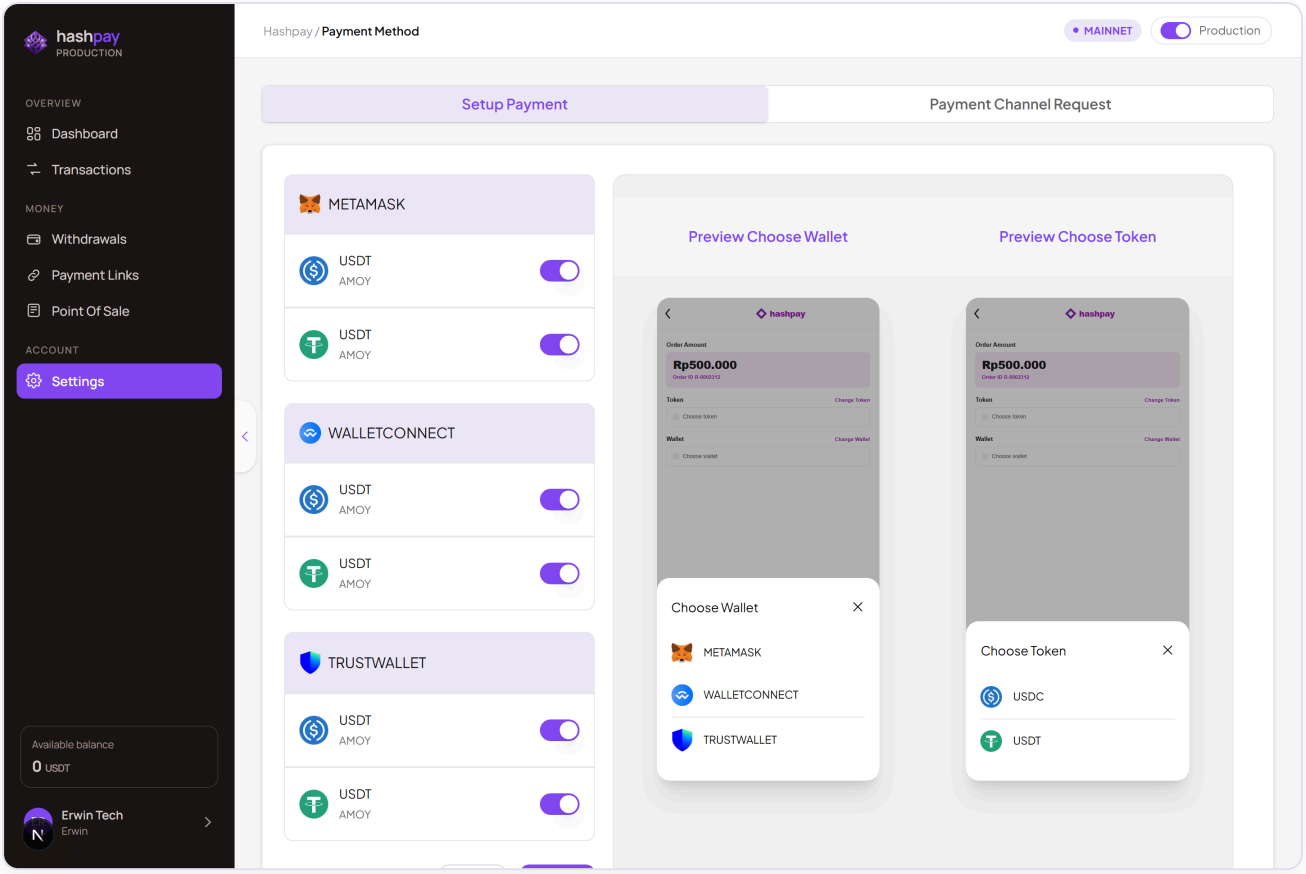
Located under `/setting/merchant-setting` in the **Fees** tab, this view provides transparent visibility into your negotiated commercial terms with Hashpay:

- **Negotiated MDR Fee Table** — Displays the active Merchant Discount Rate (percentage rate + flat fee) configured for each blockchain network (BNB Chain, Tron, Ethereum, Solana).
- **Fee Allocation Policy** — Indicates whether transaction fees are configured as **Ditanggung Penjual (Borne by You/Seller)** or **Ditanggung Pembeli (Borne by Customer/Buyer)**.
- **Minimum Order Amount (Min order)** — The strictest minimum bill value (e.g. Rp 10.000) below which transactions cannot be initiated. This limit prevents dust transactions where blockchain gas fees would exceed the transaction value.

> 💡 **ADMINISTRATIVE MDR CONFIGURATION**
>
> MDR fee percentages and fee allocation policies are established and configured directly by Hashpay administrators based on your business volume and merchant agreement. This tab is strictly read-only. To request adjustments to your fee tiers or discuss volume discounts, please contact Hashpay Merchant Support.

PRICING EXAMPLE (RP 100.000 ITEM, 1.5% MDR)	DITANGGUNG PENJUAL (BORNE BY SELLER)	DITANGGUNG PEMBELI (BORNE BY BUYER)
Price Shown to Customer	Rp 100.000	Rp 101.500 (Invoice + Fee)
Processing Fee (1.5%)	Rp 1.500 (Absorbed by merchant)	Rp 1.500 (Paid by buyer)
Net Amount Received by Merchant	Rp 98.500	Rp 100.000 (100% Full Price)

Payment Methods: Setup Payment & Live Preview

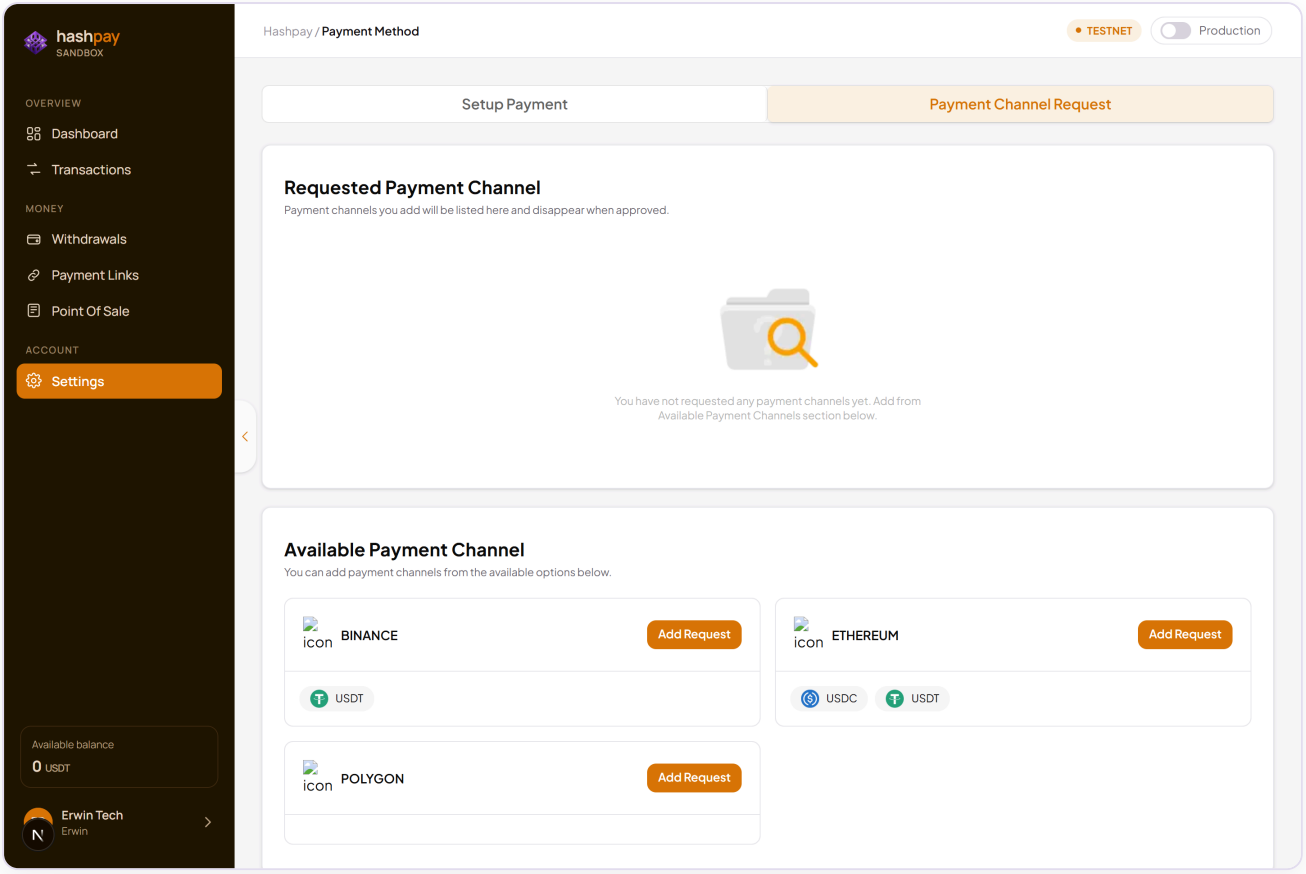


Payment Methods & Live Checkout Preview

Located under `/setting/payment-method` in the **Setup Payment** tab, this interface allows merchants to customize customer-facing options:

- **Supported Tokens** — Enable or disable specific stablecoin assets (USDT, USDC).
- **Supported Networks** — Toggle blockchain networks your business accepts (e.g., enable BNB Chain and Tron for everyday low-gas retail, enable Ethereum for large wholesale invoices).
- **Supported Wallets** — Enable wallet options including MetaMask, Trust Wallet, WalletConnect, and Phantom.
- **Live Checkout Preview** — Review real-time previews of what your customers see before publishing changes.

Payment Methods: Payment Channel Request



Payment Channel Request Form

Located under `/setting/payment-method` in the **Payment Channel Request** tab, this formal submission workflow allows merchants to request activation of additional payment rails:

1. **Submit Channel Request** — Fill in the requested new token, new blockchain network, or specialized local payment rail.
2. **State Commercial Reason** — Provide anticipated transaction volumes or specific customer demographics requiring the channel.
3. **Hashpay Review & Activation** — The Hashpay compliance and engineering team evaluates network liquidity and security, activating the channel directly into your store upon approval.

> ⭐ **CONVERSION OPTIMIZATION**
>
> Enabling multiple wallets and networks maximizes customer checkout conversion. See Payment channels and Supported wallets for detailed network comparisons.

CHAPTER 14.0 · SETTINGS & CHANNELS

Account & API Keys Management

> *Understand your merchant business credentials, how to securely hand them over to your technical team, and how to rotate keys directly from the dashboard.*

Your three business credentials explained

When your merchant account is created, Hashpay generates three distinct credentials. Understanding the role and security level of each credential is essential for keeping your store funds secure:

CREDENTIAL	WHERE TO FIND	USAGE & SECURITY CLASSIFICATION
Merchant ID (Public Key)	Settings → API Keys	Your unique store identifier (e.g. 10001). Completely safe to share with customers, display on invoice receipts, or include in public website source code.
API Secret Key	Settings → API Keys	Confidential authentication key. Used exclusively by your backend server or software developer to create automated payment orders. Never reveal this publicly or commit it to GitHub.
Webhook Signing Secret	Settings → API Keys & Webhooks	Used by your server developer to mathematically verify that incoming payment notification webhooks genuinely originate from Hashpay, preventing spoofing.

🔒 **IMPORTANT SECURITY RULE FOR BUSINESS OWNERS**

Never share your merchant dashboard login password with external developers or third-party web agencies. If your IT team requires API access to connect your online store, provide them only with the API Secret Key.

SOP: Safely sharing credentials with IT developers

When hiring a web agency or working with internal programmers to integrate Hashpay into your website, follow this standard operating procedure (SOP) to prevent credential leaks:

1. **Retrieve the Secret Key** — Log in to your merchant dashboard, navigate to **Settings** → **API Keys**, and click the **Copy** button next to your API Secret Key.
2. **Transmit via Encrypted Channel** — Never send secret keys over unencrypted WhatsApp chats, Telegram groups, or plain emails. Use password-protected secret sharing tools (such as Bitwarden Send, 1Password, or an encrypted password manager).
3. **Configure Notification Webhook URL** — Ask your programmer to provide your store's secure notification callback URL (e.g., `https://mystore.com/api/hashpay-webhook`). Paste this URL into the **Webhook URL** field under Settings → API Keys & Webhooks.
4. **Test the Integration** — Click the **Test Webhook** button in your dashboard to send a simulated test ping to your programmer's server and verify that the connection works smoothly.

When and how to rotate your API keys

Key rotation is a fundamental security practice that issues a brand-new secret key while instantly deactivating the old one. We strongly advise rotating your keys in any of the following scenarios:

- An external IT agency, freelance developer, or technical employee who previously had access to your credentials finishes their contract or leaves your company.
- A secret key is accidentally pasted into a public communication channel, email thread, or committed to a public code repository (such as GitHub).
- Routine organizational security audits (we recommend rotating operational keys every 90 to 180 days).

To rotate your key, open **Settings** → **API Keys** and click **Regenerate Key**. A confirmation dialog will appear. Once confirmed, your new key is generated immediately.

> ⚠️ **PLAN FOR ZERO-DOWNTIME KEY ROTATION**
>
> When you click **Regenerate Key**, your previous API key stops working immediately. Coordinate with your technical lead in advance so they can update the new key in your website server environment at the exact same moment to avoid missed transactions.

Account security best practices

- **Enable Two-Factor Authentication (2FA)** — Safeguard your dashboard login with Google Authenticator or Authy. 2FA is strongly enforced when performing sensitive actions such as bank withdrawals or key rotations.
- **Enforce Cashier Isolation** — Never give your main owner dashboard credentials to store cashiers. Instead, use the **Point of Sale** menu to create separate cashier profiles with zero withdrawal access.
- **Regular Audit Checks** — Review transaction ledgers and bank withdrawal records weekly in your dashboard to ensure all settled amounts reconcile with physical store receipts.

CHAPTER 15.0 · SETTINGS & CHANNELS

Payment Channels & Blockchain Networks

> *Hashpay allows your business to accept stablecoins across multiple blockchain networks. Choose the optimal channels that best match your customer base, operating speed, and profit margins.*

Supported tokens & blockchain networks comparison

Different blockchain networks offer distinct trade-offs between confirmation speed, miner gas fees, and consumer adoption. Here is the full breakdown of supported networks in Hashpay:

TOKEN	NETWORK	CONFIRMATION SPEED	TYPICAL GAS FEE	BEST COMMERCIAL USE CASE
USDT	BNB Chain (BEP-20)	~3 seconds	Very Low (< $0.05)	In-store POS retail counters, daily dining, and fast online shopping.
USDT	Tron (TRC-20)	~3 seconds	Low (~ $1.00 - $2.00)	Extremely popular among international travelers and crypto holders across Asia.
USDT / USDC	Solana (SPL)	< 1 second	Negligible (< $0.01)	Ultra-fast micropayments, high-traffic ticket checkouts, and mobile commerce.
USDT / USDC	Ethereum (ERC-20)	~15-30 seconds	Variable ($2.00 - $15.00+)	Institutional settlements, large B2B wholesale orders, and luxury goods.

💡 **AUTOMATED DECIMAL & CONTRACT HANDLING**

Token decimals vary across blockchains (e.g., 18 decimals on BNB Chain vs 6 decimals on Tron and Ethereum). Hashpay handles all decimal formatting, contract addresses, and gas estimations automatically behind the scenes. Neither your cashier nor your customer ever needs to perform manual conversions.

Network-specific MDR fees & fee allocation policies

Unlike rigid credit card processing that imposes fixed percentage cuts, Hashpay displays your transparent negotiated fee schedule under **Settings → Merchant Setting → Fees**:

- **Custom Per-Network MDR** — Review tailored MDR fee rates per blockchain configured for your account. Networks like BNB Chain and Tron feature highly competitive transaction rates and fast settlement.
- **Ditanggung Penjual (Borne by Seller)** — The merchant absorbs the processing fee. The customer pays the exact invoice price, and fees are automatically deducted from your settlement balance.
- **Ditanggung Pembeli (Borne by Buyer)** — The processing fee is added to the customer's total at checkout. Your business receives 100% of the invoice amount with zero fee deduction.
- **Minimum Order Amount (Min order)** — Enforces the lowest acceptable checkout value per network (e.g., Rp 10.000) to ensure transactions remain economically practical against blockchain gas fees.

PRICING EXAMPLE (RP 100.000 ITEM, 1.5% MDR)	DITANGGUNG PENJUAL (BORNE BY SELLER)	DITANGGUNG PEMBELI (BORNE BY BUYER)
Price Shown to Customer	Rp 100.000	Rp 101.500 (Invoice + Processing Fee)
Processing Fee (1.5%)	Rp 1.500 (Absorbed by merchant)	Rp 1.500 (Paid by buyer at checkout)
Net Amount Received by Merchant	Rp 98.500	Rp 100.000 (100% Full Product Price)

How to enable channels & request new tokens

Customizing your active payment methods is seamless from the merchant dashboard:

1. **Open Payment Methods** — Navigate to **Settings** → **Payment Methods** (`/setting/payment-method`) in your merchant dashboard.
2. **Setup Payment Tab** — Toggle on specific tokens (USDT, USDC), networks (BNB Chain, Tron, Solana, Ethereum), and customer wallets (MetaMask, Trust Wallet, Phantom, WalletConnect).
3. **Preview Live Experience** — Check the interactive live checkout preview on the right side of the screen to verify how customer options appear.
4. **Payment Channel Request Tab** — Need a specialized token or custom fiat rail? Submit a formal request under the **Payment Channel Request** tab for compliance evaluation and fast activation.

> ⭐ **RECOMMENDED SETTING FOR RETAIL OUTLETS**
>
> For physical brick-and-mortar stores, we strongly recommend keeping BNB Chain and Tron active at all times. Their 3-second confirmation speed prevents customer lines at cashier counters.

CHAPTER 16.0 · SETTINGS & CHANNELS

Supported Crypto Wallets

> *Customers can pay directly using their preferred self-custodial wallet app or registered exchange account without needing to register a separate Hashpay user account.*

Hashpay supports over 300+ crypto wallets globally across mobile and desktop environments. Customers simply use the crypto wallet they already have installed on their phone:

WALLET APP / PLATFORM	SUPPORTED NETWORKS	DEVICE AVAILABILITY	PAYMENT CONNECTION METHOD
MetaMask	BNB Chain, Ethereum	iOS, Android, & Desktop Browser Extension	Scan on-screen QR code or 1-click browser extension prompt.
Trust Wallet	BNB Chain, Tron, Ethereum, Solana	iOS & Android mobile application	Instant mobile QR Code scan with camera or in-app scanner.
Phantom	Solana	iOS, Android, & Browser Extension	Mobile QR scan or 1-click browser pop-up authorization.
WalletConnect	BNB Chain, Ethereum	300+ Web3 mobile wallet apps (Rainbow, Zerion, etc.)	Universal WalletConnect QR code modal.
Exchange Deposit Accounts	BNB Chain, Tron, Ethereum, Solana	Indodax, Tokocrypto, Binance, OKX, Bybit apps	Standard crypto withdrawal / transfer to the dynamic order deposit address.

> 💡 **AUTOMATED WALLET COMPATIBILITY FILTERING**
>
> The customer checkout screen automatically filters and presents only the wallets compatible with the selected token and blockchain network. EIP-681 compatible QR codes auto-populate the exact amount and recipient address upon scan.

Customer payment journey (Step-by-step)

1. **View Bill on Counter or Link** — The customer views the total bill on your store's POS EDC display or opens your shared WhatsApp payment link.
2. **Select Asset & Network** — The customer picks their token (USDT/USDC) and network (e.g., BNB Chain).
3. **Scan Dynamic QR Code** — The customer opens their mobile wallet camera or in-app scanner and scans the on-screen QR code.
4. **One-Click Authorization** — The customer's wallet loads the transaction with the recipient deposit address and exact crypto amount locked in. The customer taps 'Confirm'.
5. **Instant Green Confirmation** — Within 2 to 5 seconds, Hashpay validates the on-chain transfer. The POS terminal prints the receipt and the customer screen displays a green checkmark.

> ⭐ **ZERO BUYER REGISTRATION BARRIER**
>
> Customers do NOT need to download a specialized Hashpay app or register a user account. Anyone in the world who possesses stablecoins in any standard Web3 wallet can pay your store immediately.