CNHX - Offshore RMB Stablecoin

Technical Whitepaper (Draft v0.1) - RXW Holding Limited (Proposed)

Date: 2025-11-05 (UTC)

Abstract

CNHX is a fiat-referenced, offshore RMB (CNH) stablecoin issued by RXW Holding Limited (proposed) in ADGM. CNHX targets institutional and professional users seeking CNH-denominated liquidity for settlement and treasury. Each CNHX aims to maintain a stable value equivalent to 1 CNH through fully reserved backing held in bank deposits and short-term government securities, with transparent reporting and robust regulatory compliance.

1. Market Rationale

Offshore RMB liquidity has expanded alongside cross-border settlement. Example indicators include Hong Kong CNH deposits and CNH bond issuance/outstanding. The RMB share in global payments has also grown, supporting the rationale for a compliant CNH stablecoin to serve Asia-MENA corridors.

2. Token Design & Peg Mechanism

Peg: 1 CNHX = 1 CNH. Reserves are maintained on a 1:1 basis. Reserve composition at launch: 100% CNH bank deposits; subject to FSRA approval, up to a defined cap may be allocated to short-term government bills consistent with the investment policy. No algorithmic stabilization is used; redemption at par is supported for whitelisted, KYC-verified counterparties.

Reserve Investment Policy (Summary)

- Objective: capital preservation and daily liquidity; - Instruments: CNH deposits, short-duration HQLA government bills; - Concentration limits: per-bank and per-instrument caps; - Risk controls: daily mark-to-ledger, independent reconciliation, monthly third-party attestations.

3. Issuance & Redemption Flows

3.1 Onboarding

KYC/AML onboarding for institutional clients; whitelisted wallets; contractual terms (T&Cs;) executed. Travel Rule compliance supported for VASP counterparties via an approved provider.

3.2 Mint (Primary Issuance)

1) Client wires CNH to a segregated reserve account; 2) Compliance clears funds; 3) Treasury authorises mint via multi-sig; 4) Smart contract mints CNHX (TRC-20 initially) to client's whitelisted address; 5) Ledger and reserve balances updated; 6) Client receives mint confirmation.

3.3 Redeem (Burn for Fiat)

1) Client initiates redemption; 2) Smart contract burns CNHX from the client's address; 3) Treasury releases CNH from reserve account; 4) Funds are sent to the client's nominated bank account; 5) Ledgers reconciled.

4. Technology Architecture

Phase 1 chain: Tron (TRC-20). Phase 2: Ethereum (ERC-20). No cross-chain bridge at launch; multi-chain supply will be managed via primary issuance/redemption per chain. Core components: issuance controller, treasury dashboard, compliance gateway (KYC/sanctions), and monitoring/alerting stack.

Smart Contracts

- Roles: Owner (governance), Minter, Pauser/Freezer (for court/regulatory orders), Compliance Oracle (address allowlist). - Upgradeability: timelocked upgrade with multi-sig approval; emergency pause for critical vulnerabilities. - Libraries/Standards: TRC-20/ERC-20 with access control modules; event emissions for full on-chain audit trails.

Key Management

- MPC/HSM-backed multi-sig (e.g., 3-of-5) with geographic and functional separation; - Role-based key custody with hardware devices for signers; - Quarterly key-rotation drills and incident runbooks; - Cold vs. hot wallet segregation with withdrawal rate-limits.

Security & Audit Program

- Pre-launch third-party audits by reputable firms with public reports; - Continuous static analysis and unit/invariant tests; - Coordinated Vulnerability Disclosure and bug-bounty (post-launch); - Disaster Recovery & Business Continuity: RTO 24h, RPO 1h; off-site encrypted backups.

Forks & Chain Incidents

A formal policy will define canonical chain selection, halting issuance during contentious forks, and post-event reconciliation. Redemptions may be temporarily paused to protect parity until finality is established.

5. Compliance & Regulatory Alignment

Alignment with FSRA's Virtual Asset Guidance, including criteria for Accepted Virtual Assets and specific guidance on fiat-referenced tokens/stablecoins. Controls include KYC/AML, sanctions screening, transaction monitoring, record-keeping, and governance arrangements.

6. Risk Management

- Liquidity risk: maintain daily buffers; stress tests across withdrawal scenarios; - Counterparty risk: multi-bank diversification; concentration limits; - Market/FX risk: reserves held in CNH; if non-CNH HQLA used, hedging to CNH with strict exposure caps; - Operational risk: segregation of duties, change management, and dual-control mint/burn; - Legal/regulatory risk: ongoing compliance reviews and legal counsel engagement.

Daily Mark-to-Ledger & Attestation

End-of-day reconciliation between bank statements, treasury ledger, and on-chain supply; independent monthly attestations by an external firm; periodic full audits.

7. Operations & Execution Plan

Initial team: 2-3 FTEs in ADGM (Compliance Officer/MLRO, Operations, Technical Lead); extended bench via external audit and legal counsel. Service levels: T+0/T+1 mint/redeem cut-offs, with time-windowed processing and exception handling.

Hiring Plan

Milestone-based scaling: post-IPA add Risk Manager and Institutional Coverage; post-launch expand DevOps and Security Engineering. Role profiles define minimum experience, certifications (e.g., CAMS for MLRO), and responsibilities.

8. Financial Model Summary (3-Year, Base Scenario)

Year	Avg Reserve (USD)	Net Yield %	Revenue (USD)	Opex (USD)	EBITDA (USD)	Break-even AUM (USD)
2026	15,000,000	2.00	300,000	350,000	-50,000	17,500,000
2027	35,000,000	2.20	770,000	550,000	220,000	25,000,000
2028	70,000,000	2.50	1,750,000	750,000	1,000,000	30,000,000

Assumptions: zero fees; reserves earn the stated net yield; Opex grows with compliance and operations scaling. Break-even supply equals Opex divided by net yield. A full, adjustable model is provided in a separate workbook.

9. Roadmap & Audit Timeline

T-10 weeks: code freeze; T-9 to T-5: external audit round 1; T-4 to T-3: fixes and internal re-testing; T-3 to T-1: external audit round 2; T-0: mainnet deployment with timelock; post-launch: monthly attestations and bug-bounty.

10. Disclosures

This draft is non-binding and for regulatory discussion only. Figures are illustrative. Launch is subject to FSRA authorisation and Accepted Virtual Asset assessments.

Reserve Transparency Policy (Draft v0.2)

Objective: preserve capital and maintain daily liquidity while ensuring full 1:1 CNH backing and public transparency.

1) Daily EOD Reconciliation

- Match three ledgers: bank statements (CNH reserves), internal treasury ledger, on-chain CNHX circulating supply.
- Sign-off: Operations prepares; Treasury reviews; Compliance signs. Exceptions escalate to CEO.
- Tolerances: max variance 0.00% or CNH 1,000 (whichever lower) before escalation; mint/burn halted if unresolved.

2) Monthly Public Attestation

- Independent attestation by a third-party firm; publish PDF on rxwholding.com and hash on-chain.
- Disclose: total reserves, circulating supply, bank and instrument breakdown, WAM, top-3 counterparties, concentration limits.
- Metrics: Coverage Ratio = Reserves / Circulating Supply (target >= 100.00%).

3) Investment Policy Controls

- Instruments: CNH deposits and short-duration high quality government bills only.
- Limits: per-bank cap (e.g., 30%), per-instrument cap (e.g., 50%), minimum overnight cash buffer (e.g., 10%).
- Stress tests: weekly redemption scenarios (T+0 to T+2) and liquidity ladders.
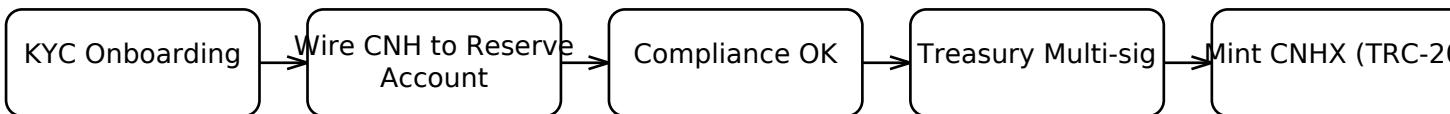
4) Custody and Key Management

- MPC/HSM-backed multi-sig (e.g., 3-of-5) for issuance and treasury actions; separation of duties; geo-separated signers.
- Cold vs. hot wallet segregation; withdrawal rate-limits; quarterly key rotation drills.
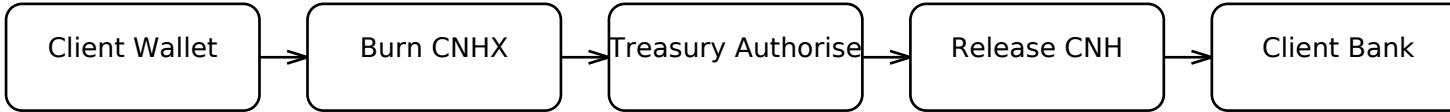
5) Reporting and Retention

- Publish monthly reserve reports; retain records for 7 years; provide regulatory access on request.
- Incident response: public notice within 24h for material reserve or security events; pause policy documented.

Mint & Redemption Flow (High-Level)

Mint (Primary Issuance)

KYC Onboarding → Wire CNH to Reserve Account → Compliance OK → Treasury Multi-sig → Mint CNHX (TRC-20

Redemption (Burn for Fiat)

Client Wallet → Burn CNHX → Treasury Authorise → Release CNH → Client Bank

Notes:

1) Mint is executed only after funds are cleared and KYC is approved.
2) All mint/burn actions require multi-sig authorisation; events are logged on-chain.
3) Reserve and supply are reconciled EOD; material exceptions trigger a pause per policy.