



Light Paper

www.chaintick.io

Verification-first trading AI with on-chain Proof-of-Performance (PoP).

Every signal is committed on-chain at broadcast and revealed later—so results are auditable, immutable, and trust-minimized.

Executive Summary

CHAIN TICK converts multi-timeframe market data (5m/15m/1h) + order-book microstructure into actionable LONG/SHORT trade plans (entry, TP ladder, SL). Each signal is hash-committed on-chain at T_0 and revealed at T_1 , enabling anyone to verify that no after-the-fact edits occurred.

A utility token, CTICK, powers access tiers, usage credits, model marketplace staking, and a usage-driven buyback & burn. Who

it's for: crypto traders, algo/quant builders, communities/KOLs, and funds needing verifiable signal histories. What makes it different: Proof-of-Performance is built in. We publish verifiable receipts for every call.

The Problem

- Trading signal products often rely on screenshots and selective reporting.
- Users cannot independently verify when a call was made or if it was altered.
- Paywalls and opaque performance reporting erode trust, especially for AI-generated signals.

Result: Low trust, high churn, little accountability.

The CHAIN TICK Solution

- PoP (Commit→Reveal): At broadcast, we compute $\text{hash} = \text{keccak256}(\text{payload} \parallel \text{nonce})$ and write it to a smart contract. After the trade window, we reveal the payload (on-chain or via IPFS anchored on-chain). Anyone can re-hash and confirm a match.
- Actionable Plans: Each signal includes direction, entry zone, TP/SL, confidence, and notes.
- Transparent Analytics: Leaderboards, Sharpe/DD, hit-rate, and R-multiples are derived from PoP-verified histories—not curated screenshots.
- Tokenized Access: CTICK reduces costs, unlocks priority latency, and powers creator/strategy marketplaces.

Data & Model Pipeline (High Level)

Ingest:

- Candles: 5m / 15m / 1h
- Trades & L2 Order Book: delta, imbalance, micro-price tilt, spread dynamics, queue depth, absorption/sweeps, volatility regimes

Decide:

- Rule-based microstructure detectors + an AI layer that adapts entry bands, confidence, and risk (TP/SL) per regime.
- Guardrails: max simultaneous positions, loss-streak cool-downs, volatility gates.

Prove:

- Commit: On-chain hash + metadata (pair, timeframe, model version, timestamp).
- Publish: Human-readable signal to Telegram/Web/API at the same time.
- Reveal: Full JSON payload later; optional IPFS for bulk with CID(s) anchored on-chain.
- Verify: Open-source CLI/SDK re-computes the hash and checks the PoP contract.

Example payload (revealed):

```
const tradeSignal = {  
  ts: "2025-08-15T18:22:43Z",  
  pair: "BTCUSDT",  
  tf: "5m",  
  dir: "LONG",  
  entry: {  
    from: 64250,  
    to: 64290  
  },  
}
```

```
tp: [64520, 64780, 65150],  
  sl: 63940,  
  model: "ob-v3.2",  
  confidence: 0.74,  
  notes: "OB imbalance>30%, spread compressed, buyer aggression  
  rising",  
  nonce: "0x7f..."  
};
```

Product & UX

For Traders

- Live signals in Telegram & Web with clear entries, TP ladder, SL, and rationale.
- “Verification badge” per signal: Committed / Awaiting Reveal / Verified.
- Backtest & Replay: load any day; watch signals in sequence with the original context.
- Slippage-aware performance & equity curves per pair/strategy.
- Latency metrics: your personal average delivery time.

For Builders / Funds

- Signals API (commits + reveals), Webhooks, and a Verifier SDK.
- Optional Strategy Marketplace: list models by staking CTICK; slashing/weighting aligns incentives.
- Enterprise dashboards & audit trails backed by PoP history.

Token Utility – CTICK

Utility first. Speculation second.

- **Access Tiers**

- Free: delayed/limited signals, public stats.
- Lite: 15m signals, standard latency.
- Pro: 5m/15m/1h + order-book heat + faster alerts.
- Elite: priority latency, custom pairs, early features.

(Hold or stake CTICK to unlock; USDT pay-per-use also available.)

- **Pay-Per-Use Credits:** Backtests, custom alerts, API bursts – cheapest in CTICK.
- **Buyback & Burn:** A portion of net revenue (subscriptions, enterprise/API usage, partner rebates) periodically buys CTICK on the market and burns it. Usage → scarcity.
- **Model/Creator Staking:**
 - Strategy providers/KOLs stake CTICK to list and gain exposure.
 - Performance/quality rules can trigger partial slashing; top performers earn boosts.
- **Governance (Pragmatic):** Advisory votes on: model (de)ploys, fee splits, new pairs, treasury grants, marketplace rules.

Token Economics (Illustrative)

- Chain: Arbitrum (fast, low fees, EVM).
- Type: Fixed-supply ERC-20 with permit.
- Supply: 100,000,000 CTICK (hard-capped).

Allocation (illustrative)

- Community Rewards (user incentives, marketplace, grants): **40%** – linear over 48 months

- Treasury/Ecosystem: **20%** — 6-month cliff, 36-month linear
- Liquidity & Market-Making: **10%** — unlocked for DEX/CEX liquidity programs
- Team: **15%** — 12-month cliff, 48-month linear
- Investors: **10%** — 6-month cliff, 24-month linear
- Early User Airdrop: **5%** — proof-of-usage snapshot

Circulating Supply at TGE: conservative (primarily liquidity + a small portion of community incentives + airdrop). Vesting contracts are public and timelocked.

Monetization

- Subscriptions (retail & pro), enterprise/API, creator channel rev share, optional execution adapters.
- **Revenue Policy:** X% of net revenue routed to automated **buyback & burn** (parameters and cadence governed). No revenue distributions to holders.

PoP Contract & Verification Model

- **Commit:** `commit(hash, meta)` stores `hash = keccak256(payload || nonce)`, time-stamp, pair, tf, model, publisher.
- **Batching:** Merkle roots for sets of signals reduce gas; leaf payloads revealed later.
- **Reveal:** `reveal(index, payload, nonce, proof)` checks hash/recomputes root; stores CID or compact payload.
- **Finality & Reorgs:** Commits wait N blocks for UI “green check”; reveals respect a minimum/maximum window to prevent “wait-and-see”.
- **Open-Source Verifier:** CLI & JS/TS SDK for anyone to independently validate proofs.

Security & Risk Controls

- **Smart Contracts:** External audits, immutable PoP core after stabilization, timelocked upgradables where needed, multisig treasury.
- **Data Integrity:** Signed publisher keys; model versioning; payload schemas hashed.
- **Ops:** Rate limits, cool-downs after loss streaks, max concurrent signals, monitoring/alerts.
- **Privacy:** No PII in payloads; wallet gating via signature; Telegram linkage opt-in.
- **Custody:** We never control user funds. Execution adapters (if used) run on user-side APIs/wallets.

Compliance Notes

- **No profit promises.** CTICK is a utility token for access, staking, and governance.
- **Jurisdictional restrictions** may apply for sales/airdrops; KYC/AML where required.
- **Disclosures:** Signals are educational; trading involves risk including total loss.
- **Governance is advisory/non-binding** where necessary for legal prudence.

Roadmap (Milestones)

Phase 1 – Foundations

- PoP Contract v1 (commit → reveal), public testnet explorer
- Telegram live signals + verification badges
- Verifier CLI/SDK (open source)

Phase 2 – Product Scale

- Web dashboard with backtests/replays
- Access gating (wallet + Telegram linking)
- Buyback & burn module wired to revenue
- Enterprise/API plans

Phase 3 – Ecosystem

- Strategy Marketplace (stake-to-list, slashing)
- Creator channels with rev-share in CTICK
- Execution adapters for select DEX/CEX (non-custodial)

Phase 4 – Governance & Expansion

- Token-holder governance (parameters, listings, grants)
- Additional chains/venues for data and execution
- Research grants and community challenges

Go-To-Market

- **Proof-of-Usage Airdrop:** Reward early Telegram users who interact with signals.
- **Public Leaderboards:** Updated daily, sourced only from PoP history.
- **KOL Partnerships:** Co-branded channels powered by CHAIN TICK; token-gated.
- **Community Reports:** Monthly “Alpha Reports” (hit-rate, PF, DD) with links to proofs.

KPIs We Track

- % Signals with verified commit → reveal proofs
- Median delivery latency (per tier)
- Retention (D30/D90) and conversion Free → Paid
- Net revenue routed to buyback/burn
- Marketplace health: models listed, stake at risk, slashing events
- Support tickets/time-to-resolution, uptime

Competitive Positioning

- Legacy signal groups: opaque, no proofs → CHAIN TICK offers cryptographic receipts.
- Backtest-only tools: historical focus, no live accountability → CHAIN TICK stamps live calls.
- AI “black boxes”: unverifiable claims → CHAIN TICK embraces transparent PoP and public metrics.

Risks (Non-Exhaustive)

- Market risk: extreme volatility may degrade performance.
- Model drift: changing regimes can reduce edge; we publish model versions and stats.
- Infra/latency risk: exchange/API hiccups; we monitor and fail-over.
- Smart contract risk: mitigated via audits and timelocks but never zero.
- Regulatory risk: evolving rules; we adapt geography and offerings accordingly.
- Adoption risk: token utility must stay compelling; governance can tune parameters.

Team & Governance (Outline)

- Core: data engineering, market microstructure, applied AI, smart contracts, security.
- Advisors: trading, compliance, market structure.
- Governance: token-holder signaling with documented rationale; emergency controls under multisig/time-lock.

Appendix — Verification Walkthrough

- User copies a signal's payload + nonce from the explorer after reveal.
- Verifier recomputes `keccak256(payload || nonce)` and checks the on-chain hash.
- If using batch commits, the verifier confirms the Merkle proof to the stored root.
- UI shows Verified if all checks pass.

Pseudocode (client-side)

```
const hash = keccak256(serialize(payload) + nonce);  
require(hash === onChainHash);
```

Conclusion

CHAIN TICK aligns incentives around verifiable transparency. With on-chain Proof-of-Performance, users no longer rely on trust—they verify. CTICK adds practical utility—access, staking, marketplace alignment—and a usage-driven burn policy that links product demand to token scarcity