



CANTON NETWORK · NON-CUSTODIAL

LongView Crew

The Canton Yield Maximizer

Technical Whitepaper & Build Documentation

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Executive Summary

LongView Crew (LVC) is a non-custodial yield optimization platform built natively for the Canton Network. It answers the single most common question in the Canton community — *"how do I make money with my CC?"* — by ranking staking and yield opportunities for each user based on their risk tolerance, time horizon, and balance, then projecting returns across 30, 90, and 365-day windows.

LVC does not take custody of user funds. Users retain their keys in their own Canton wallet and manually sign every transaction. The platform is an analytics, education, and guidance layer — complementary to cold storage, not a replacement. Revenue is generated through a Pro subscription tier and through Featured App Activity Markers on Canton Network protocol.

At a glance

Non-custodial Canton dApp · Personalized validator rankings · Live CC/USD price from Scan API · Portfolio tracking · 365-day projections · Educational-first · Pre-DevNet with Canton Foundation Dev Fund proposal submitted.

The Problem We're Solving

Canton Network is an institutional-grade blockchain with a rapidly growing community of retail and accredited holders. But despite its sophistication, Canton Coin (CC) holders face three persistent friction points when trying to put their coin to work:

- **Fragmented validator data.** Information about super validators — APY, commission, uptime, lockup terms — is spread across multiple sources with no single comparison tool.
- **No personalization.** What's right for a 5-year holder is not right for someone who needs liquidity in 30 days. Generic "stake with X" recommendations ignore risk tolerance and time horizon.
- **Limited education.** Terms like lockup, slashing, featured app rewards, and mining round pricing are unfamiliar to most new holders. They need context at the moment of decision, not buried in documentation.

LVC is built to close each of these gaps in a single, privacy-preserving, non-custodial tool.

What LongView Crew Does

At its core, LVC is three products in one application, unified by a shared compliance model and design language.

1. Yield Maximizer (flagship)

A personalized opportunity ranking engine. Users set their risk tolerance, time horizon, goals, and CC balance; the engine ranks all available staking and yield opportunities and surfaces the top picks with point-based transparency (APY: 40pts, risk match: 30pts, horizon fit: 15pts, balance fit: 15pts). Includes 365-day compounding simulation and scenario comparison across risk profiles.

PRIMARY FEATURE · CORE VALUE PROP

2. Portfolio Dashboard

A view-only portfolio tracker that shows total balance, unrealized gains, weighted APY across staked holdings, and projections of what the user's balance would grow to in each top opportunity over 365 days. Historical price data is tracked in-session to build a portfolio value chart spanning past performance and forward projections.

LIVE · IN-APP · NON-CUSTODIAL

3. Community Education Layer

A daily Canton quiz with deep-dive explanations, streak bonuses, and Crew Points (CP) — a non-monetary engagement reward. Teaches Canton Network concepts, CC tokenomics, and yield strategies in a habit-forming daily loop. Integrates with the core app so users learn and earn while exploring the Yield Maximizer.

DAILY · GAMIFIED · EDUCATIONAL

Architecture & Technical Design

LVC is built on a three-tier stack designed for performance, privacy, and future extensibility into institutional-grade use cases.

Technology Stack

Layer	Technology	Purpose
Frontend	React 18 · TypeScript · Vite	Dashboard, charts, portfolio tracker, onboarding flow
Backend	Java 17 · Spring Boot	Subscription logic, API proxying, business rules
Smart Contracts	Daml (Canton 3.4+)	On-ledger primitives, license templates, featured app markers
Ledger Data	JSON Ledger API · PQS	Transaction submission, active contract queries, audit trail
Network Data	Canton Scan API	CC/USD price, mining rounds, registry metadata, validator info
Wallet Integration	CIP-0103 Discovery	Standard-compliant wallet connection (scaffolded for DevNet)
Token Standard	CIP-0056 (CC)	Holdings queries, transfer instructions, allocation DVP

Canton Scan API Integration

LVC queries Canton Scan API endpoints hosted by Super Validator nodes to deliver real-time network data with Byzantine fault tolerance:

- **Dynamic SV discovery.** `GET /api/scan/v0/scans` returns the full list of known super validator scan URLs. Cached for 5 minutes.
- **Live CC/USD price.** `POST /api/scan/v0` with `cached_open_mining_round_trip_with_uses` returns the current mining round's median CC/USD exchange rate.
- **BFT reads.** Price queries hit all discovered SV nodes in parallel. The median price is adopted, and a confidence score is computed based on how many nodes agree within 1% tolerance. Users see "3/5 nodes — BFT verified" alongside the live price.
- **Total CC supply.** `GET /registry/metadata/v1/instruments` returns CC token metadata including circulating supply for market cap context.
- **Historical tracking.** Up to 500 price observations are buffered in memory per session, enabling a live price chart with 1-hour and 24-hour trend indicators.

Compliance Architecture

Non-Custodial by Design

LVC never holds, controls, or has visibility into user private keys. The Canton ledger lives on the user's own validator node (self-hosted or NaaS). LVC's backend services only see what the user's node exposes via standard Canton APIs — the same access any client app would have. Every transaction requires the user to sign it themselves in their own wallet.

This compliance model is enforced in three ways:

- **Technical.** No custody code paths exist. The backend has no signing keys for user parties. All transaction construction is delegated to the user's wallet via CIP-0103.
- **UX.** Every actionable recommendation explicitly tells the user what to sign and where (wallet name, transaction type, expected outcome). Manual execution is the only path.
- **Legal/Disclaimers.** LVC is presented exclusively as educational/analytics. No financial advice is given. All yields are clearly labeled as estimates, not guarantees.

Feature Walkthrough — The Build Journey

This section documents every feature built to date, in the order they were implemented, so the community can see exactly what has been delivered.

Guided Onboarding Flow

A 5-step interactive tutorial that walks new users through setting their risk tolerance, time horizon, CC balance, and goals before landing on the dashboard. Each step includes educational context. Completion is persisted in local storage so returning users skip straight to the app. A "Replay Tour" button is always available from the Preferences panel.

ACTIVATION · EDUCATION

Personalized Opportunity Ranking Engine

The core algorithm. Each opportunity receives a composite score of up to 100 points: APY (40pts, weighted higher for aggressive profiles), risk alignment (30pts), horizon fit (15pts), and balance fit (15pts). Free tier sees the top 3; Pro unlocks all 8. The algorithm is fully transparent — hover any ranked opportunity to see its point breakdown.

CORE ENGINE

Live CC/USD Price Ticker & Historical Chart

A compact price bar at the top of the dashboard shows the live CC/USD rate with a pulsing green "live" indicator, 1-hour and 24-hour percentage change, 24-hour high/low range, and current mining round number. A pure-SVG sparkline chart below visualizes up to 500 historical price observations with hover tooltips showing exact price, round, and timestamp.

LIVE DATA · VISUAL

Portfolio Dashboard

Displays total balance (CC and USD), unrealized gain/loss versus first snapshot, weighted APY across staked holdings, allocation breakdowns by asset type (liquid/staked/locked/LP) and by validator provider, and a portfolio value chart that extends 90 days forward based on the user's current weighted APY. Three medal-ranked projection cards show what the balance would grow to in each of the top opportunities over 365 days.

DAILY-USE · PERSONALIZED

Scenario Comparison Mode

Side-by-side comparison of how opportunities rank under different preference profiles. Two toggleable dimensions: "By Risk" (Conservative / Moderate / Aggressive) and "By Horizon" (30d / 90d / 180d / 1 year+). Each column shows the top N picks with rank change indicators. Automatic insight commentary explains what changed and why.

DECISION SUPPORT · EDUCATION

365-Day Compounding Simulation

For any allocation strategy, simulates daily compounded growth over a selectable horizon (30/60/90/180/365 days). Visualizes balance, accumulated earnings, and cumulative totals across the period. Outputs effective APY, total projected earnings, and a risk-adjusted score.

[PROJECTIONS · SIMULATION](#)

Crew Points Gamification Layer

A non-monetary engagement reward system. Users earn Crew Points (CP) for activities like completing the daily Canton quiz, achieving streaks, and winning Minesweeper games. CP are explicitly labeled as having no monetary value — they exist purely to drive daily learning habits and community engagement. Leaderboard ranks top earners across all activities.

[COMMUNITY · RETENTION](#)

Featured App Activity Marker Integration

When users interact with LVC in ways that trigger on-chain state changes (yield allocations, portfolio rebalances, stake delegations), the app creates a FeaturedAppActivityMarker contract per CIP-0047. Once Canton Foundation approves LVC as a featured app, these markers generate approximately \$1 USD of CC rewards each, directly funding platform operations.

[PROTOCOL REVENUE · CIP-0047](#)

Subscription System (Free + Pro)

Two-tier model built on Stripe integration (scaffolded). Free tier unlocks the core Yield Maximizer with top 3 opportunities. Pro tier unlocks all opportunities, AI-powered insights via Claude API, custom simulations, advanced scenario comparisons, tax optimization planning, downloadable reports, and priority community access.

[MONETIZATION · PRO TIER](#)

Mobile-Responsive Design System

Three-tier responsive breakpoints (desktop >900px, tablet 640–900px, phone <640px). All touch targets meet 44px minimum on phones. Inputs use 16px+ font size to prevent iOS zoom. Charts and tables scale fluidly. Horizontal scroll is enabled where needed (validator comparison table), disabled globally elsewhere to prevent layout bugs. Built for the YouTube audience that browses primarily from mobile.

RESPONSIVE · ACCESSIBILITY

Tokenomics & Canton Network Integration

Canton Coin (CC) Pricing

Canton uses a novel tokenomic model where CC/USD exchange rates are set per mining round (approximately every 2.5 minutes). Super Validators vote on the conversion rate and the median wins. LVC pulls this live rate directly from the Scan API to ensure all portfolio valuations reflect the current protocol-agreed price.

Revenue Model

- **Pro Subscription Tier.** \$19/month (launch pricing). Includes all opportunities, AI insights, advanced simulations, downloadable reports, and tax planning tools. Stripe-based, scaffolded.
- **Featured App Activity Markers (CIP-0047).** Approximately \$1 USD per marker created on significant user actions. Requires Canton Foundation featured app approval; application planned post-beta.
- **Future: Execution Layer Partnership.** LVC will remain non-custodial itself, but an automated-execution product (one-click staking, portfolio rebalancing) will require a licensed custodial partner. Revenue share with that partner forms a third revenue stream and transforms LVC from analytics into a full yield management platform.

Canton Foundation Grant

A Dev Fund proposal (PR #195 at [canton-foundation/canton-dev-fund](https://github.com/canton-foundation/canton-dev-fund)) requests 275,000 CC (~\$39,875 at current rates) over 6 months to support DevNet deployment, beta testing with the LongView Compute community, and launch preparation. The proposal is currently under review with the Canton Foundation tokenomics committee.

Current Status & Roadmap

Current Status (April 2026)

- **App development.** Core features complete and running locally against LocalNet.
- **DevNet whitelist.** Submitted, awaiting approval from operations@sync.global.
- **Dev Fund proposal.** PR #195 submitted; under review by Canton Foundation.

- **Waitlist.** Active at longviewcompute.com, collecting signups from the LongView community.
- **Community presence.** 20,000+ YouTube subscribers (@LongViewCompute), active daily on X (@LongViewCrypto).

Roadmap

Timeframe	Milestone	Status
Q2 2026	DevNet deployment · Wallet integration · Live validator data	In progress
Q3 2026	TestNet deployment · Beta testing with community · Execution partner discussions	Planned
Q4 2026	Featured App application · MainNet readiness · Pro tier launch	Planned
2027+	Execution layer launch · AI insights · Institutional features · Additional network expansion	Planned

About the Builder

LongView Crew is built by Scott Long under the LongView Compute brand. Scott operates a YouTube channel with 20,000+ subscribers focused on long-term cryptocurrency investing and Canton Network education, hosts daily livestreams on X under @LongViewCrypto, and has been active in the Canton community since the early DevNet period.

The community-first approach means LVC is being built in public with constant feedback loops from the target audience. Features ship to the community before they ship to the wider Canton ecosystem, which has produced a mature product even before DevNet launch.

Links & Contact

Website	longviewcompute.com
YouTube	youtube.com/@LongViewCompute (20K+ subscribers)
X (Twitter)	@LongViewCrypto

Dev Fund Proposal	github.com/canton-foundation/canton-dev-fund/pull/195
Waitlist	longviewcompute.com (join for DevNet launch access)

Thank you for reading

This document is living and will be updated as LVC progresses through DevNet, TestNet, and MainNet milestones. If you have questions, feedback, or want to contribute, the fastest way to reach us is a DM on X @LongViewCrypto or a comment on the YouTube channel. We're building this with the community — every question asked shapes what we build next.