

RESEARCH REPORT

Canton: From the Engine Room

— Executive Summary

In June 2026, Digital Asset, the company behind the Canton Network, closed a \$355 million round led by a16z crypto at a reported \$2 billion valuation. The participant list reads like the seating chart at a capital-markets conference: HSBC, Apollo Funds, Citadel Securities, CME Ventures, Coinbase Ventures, Broadridge, S&P Global, SoFi, and a subsidiary of the Abu Dhabi Investment Authority, among others.

In March 2026, Visa announced it would become the first major global payments company to serve as a Canton Super Validator, one of forty institutions anchoring the network's governance. "Digital Asset has built one of the clearest examples of blockchain product-market fit in regulated finance," said a16z crypto general partner Ali Yahya.

That is the view from the press releases. Ours is closer to the metal.

At Blueprint, we have spent the past year running a high-performance Canton validator in production, shipping applications on the network, and building an index of every Canton Coin transaction back to the chain's June 2024 genesis.

This piece is for the people deciding whether Canton deserves their attention: **what the network gets right, what it will cost your team, and what we built to change that math.**

— 1. A public network that doesn't broadcast

The general-purpose blockchains institutions actually use make the same trade: global verifiability in exchange for global visibility. On a transparent ledger, your position is the market's position. Front-running is a business model. "Confidential trade" is a contradiction in terms.

Canton inverts the trade. It is a public network of sovereign nodes running Daml smart contracts, in which transaction data is synchronized only between the parties entitled to it. Ordering and finality come from a decentralized backbone called the Global Synchronizer, operated by the Super Validators: independent institutions, each with an equal governance vote.

There is no global application state to browse, because universal visibility is not a feature of the system; it is the vulnerability the system was designed to remove. Privacy on Canton is not bolted on after the fact. It is the topology.

A transparent ledger

- Global verifiability purchased with global visibility. Every position is legible to every participant, including the ones trading against you.
- Front-running is not an exploit on such a network. It is an available business model, and a rational one.
- For a regulated asset manager, this is not a compliance inconvenience. It is disclosure of client information.

Canton Network

- A public network of sovereign nodes where transaction data reaches only the parties entitled to it. Ordering and finality are decentralized; visibility is not global.
- There is no application state to browse, so there is nothing to front-run and nothing to leak.
- The first public network we have operated where "on-chain" does not mean "in public."

Why the Institutional Roster Looks the Way it Does

That one design decision is why the institutional roster looks the way it does. Visa's Rubail Birwadker put it plainly in Visa's announcement: "Many banks see the lack of privacy as a dealbreaker for moving meaningful activity onchain." We would put it more strongly. For a regulated asset manager, posting live positions to a transparent ledger is not a compliance headache; it runs straight into the confidentiality owed to clients. Canton is the first public network we have operated where "on-chain" does not mean "in public."

"Many banks see the lack of privacy as a dealbreaker for moving meaningful activity onchain."

Rubail Birwadker

Composability and The Economics of Utility

Two more properties matter to us as financial-infrastructure operators.

First, composability survives the privacy model: applications on Canton can settle atomically against each other when the parties agree, so collateral, cash, and assets can move in one transaction across applications without either side exposing its book.

Second, the economics run in the right direction. Canton Coin, the network's utility asset, is burned as applications consume synchronizer capacity and is minted as rewards to Super Validators, validators, and application providers that operate the network. The network pays the operators and builders who add utility, rather than only taxing them.

The traction is not hypothetical. Digital Asset reports more than 700 ecosystem participants. Goldman Sachs, DTCC, BNP Paribas, Paxos, and Polychain were already on the cap table from the 2025 round, before the 2026 raise added names like HSBC, Apollo Funds, and CME Ventures.

Furthermore, the contract language Canton executes is already carrying institutional volume at scale: Broadridge's Distributed Ledger Repo, built with Daml, processed an average of \$368 billion in daily repo transactions in April 2026, nearly \$8 trillion for the month, up 268% year over year.

For most teams, the question is no longer whether this network matters. It is whether they can afford to build on it.

— 2. What it Costs to Build Here

We mean engineering cost, and we will be specific, because we have paid it.

When Canton's own developer-relations team surveyed 41 active developers in early 2026, 41% named environment setup and node operations as the task that took longest to get right, and the survey's own analysis concluded that developers are forced to become "Infrastructure Engineers" before they can be "Product Builders." Seventy-one percent rated data indexing and APIs as critical or important. Our production experience agrees, in four specifics.

A. There is No Built in Data Layer

The privacy that makes Canton valuable also means no one can run an Etherscan for its application layer. An explorer that showed everyone everything would be a hole in the model, not a convenience. Visibility follows entitlement. To know what happened, even to your own contracts, you run infrastructure: a participant node that holds your slice of the ledger, a query store that mirrors it into something you can actually analyze, and the Super Validators' public Scan APIs for the network-level view. Data access on Canton is real work before it is an API call.

B. Daml is a Different Model

Authorization lives in the language itself: signatories, observers, and parties are first-class concepts, and a contract that isn't properly authorized cannot exist. For multi-party financial workflows this is exactly right; it compiles governance into the contract. It is also unfamiliar to nearly every developer you will hire, and the learning curve is front-loaded precisely where startups are weakest: before the first feature ships.

C. Validator Operations Are a Real Job

Write throughput consumes synchronizer traffic that must be purchased and topped up. Protocol releases bring genuine migrations, not just version bumps. Your node's cryptographic identity lives in your own database; lose it, and no committee can restore it. Identity-provider wiring between your OAuth tenant and the ledger API is on you. None of this is exotic to an infrastructure team. All of it is a tax on a product team.

D. The Economics are Novel

Fees burn as traffic; rewards mint to operators and applications on network-defined schedules. Modeling your unit costs means understanding a mint-and-burn loop, not reading a gas tracker.

None of these are defects. They are the price of a network where confidentiality is structural. But that price has gated Canton to teams willing to run serious infrastructure. We were one of them. Then we productized what we ran.

— 3. What We Built So You Don't Have To

Over the last year, we have built tooling at every layer of the Canton stack.

A Validator Practice

Our validator party, [blueprint-validator-1](#), has run in production on Canton MainNet for the past year at consistently high performance. We built around it the operational layer the network doesn't ship: one-command deployments, scripted upgrades with automated backup and validation, monitoring and alerting, disciplined identity backup, traffic management. The achievement is not just the performance record. It is that operating Canton became boring, and boring is exactly what an institution should demand from its ledger infrastructure. With this supporting infrastructure, our validator became the bedrock for the next layer of our stack.

An Index That Goes Back To Genesis

On top of the validator, we built the data layer Canton doesn't hand you either. Our participant's update stream and query store mirror every contract and event our party is entitled to see into SQL and make them streamable, queryable, and replayable from any ledger offset. The Super Validators' public Scan APIs add network-level state. Finally, we index every Canton Coin transaction since the chain's June 2024 genesis on our own validator infrastructure: hundreds of millions of transactions, continuously ingested, typically seconds behind the head of the chain, with history intact across the network's hard migrations.

That index closes a real gap. Canton's public Scan API serves a single global feed with no per-party filter, and a participant's Ledger API only sees the parties it hosts. Neither can answer the questions an operator actually asks: what is this party's complete history, what did it hold at that moment, who was on the other side. Ours answers all three: any transaction, any party, any balance.

Source	What it cannot answer
Public Scan API	A single global feed with no per-party filter
Participant Ledger API	Only the parties your own node hosts
Blueprint Index	Answers all three: any transaction, any party, any balance

Ours answers all three: any transaction, any party, any balance.

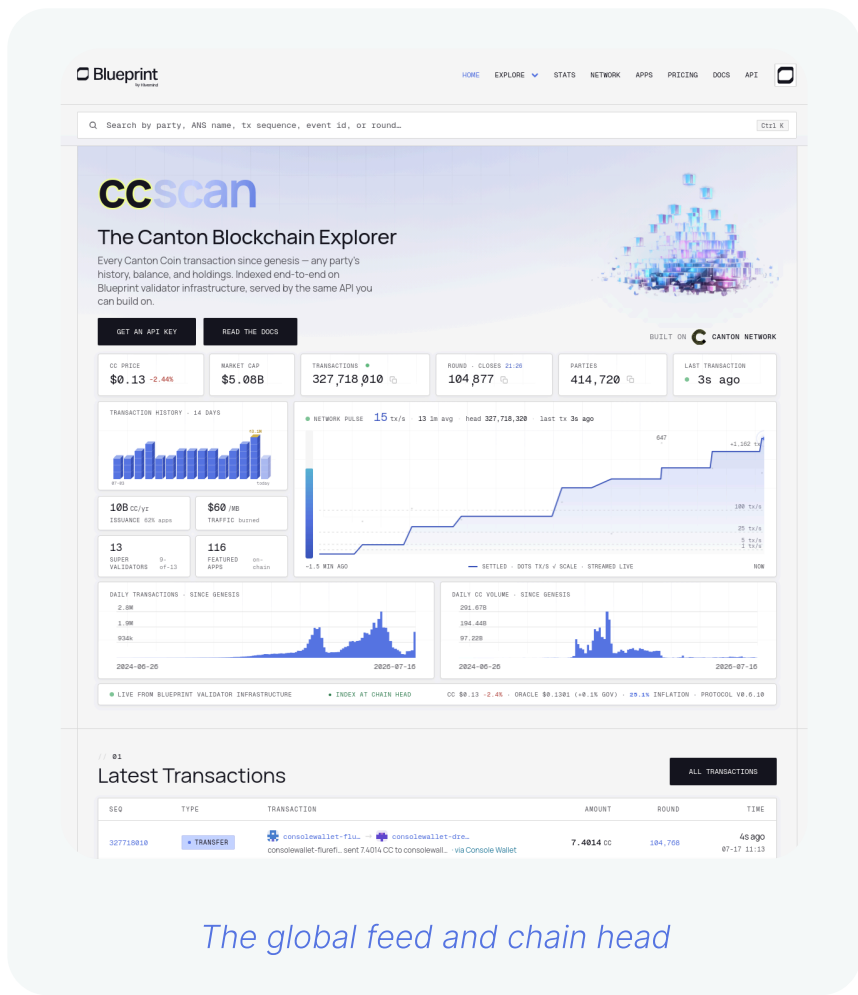
CC Scan: The Explorer With a Chain API Underneath

We then surfaced that same API to the Canton ecosystem, launching CC Scan: a public network explorer offering:

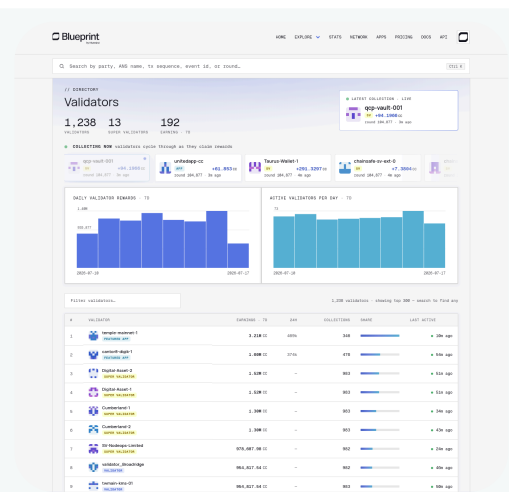
- The global transaction feed, filterable by type, mining round, or calendar day;
- Any party's complete history, with the party's role in every transaction;
- Live balances and holdings from point-in-time snapshots;
- Mining rounds, Canton Name Service entries, Super Validator and network metadata, and market data.

Canton has explorers already; what we could not find was one with this per-party depth, backed by an API a firm can build a product on.

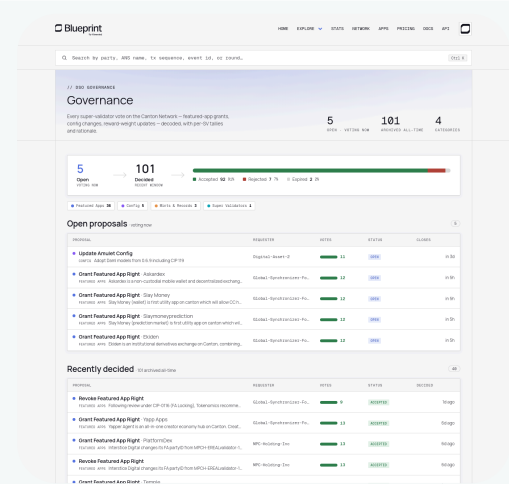
Everything on the site is served by a thirty-seven-endpoint REST API, with deterministic cursor pagination built for backfills. Evaluation access is free: creating an account takes seconds and includes 10,000 queries a day against the full API. For enterprise applications that require comprehensive on-chain data in production, access is offered in three tiers, scaling to dedicated capacity, service-level agreements, and custom data feeds. The explorer is the demo; the API is the product.



The global feed and chain head



Validators and mining rounds



Super Validator governance

CC Ledger: Canton for Everyone Else

CC Scan is how you read Canton without running infrastructure. CC Ledger is how you write to it. Writing to Canton ordinarily means learning Daml, running or connecting to a participant node, managing gRPC authentication, and handling gas. CC Ledger reduces that to a single REST call, an OpenAPI 3.1 interface in the shape developers already know. One POST returns an API key with fifty trial actions on MainNet. No wallet, no node, no payment needed to start.

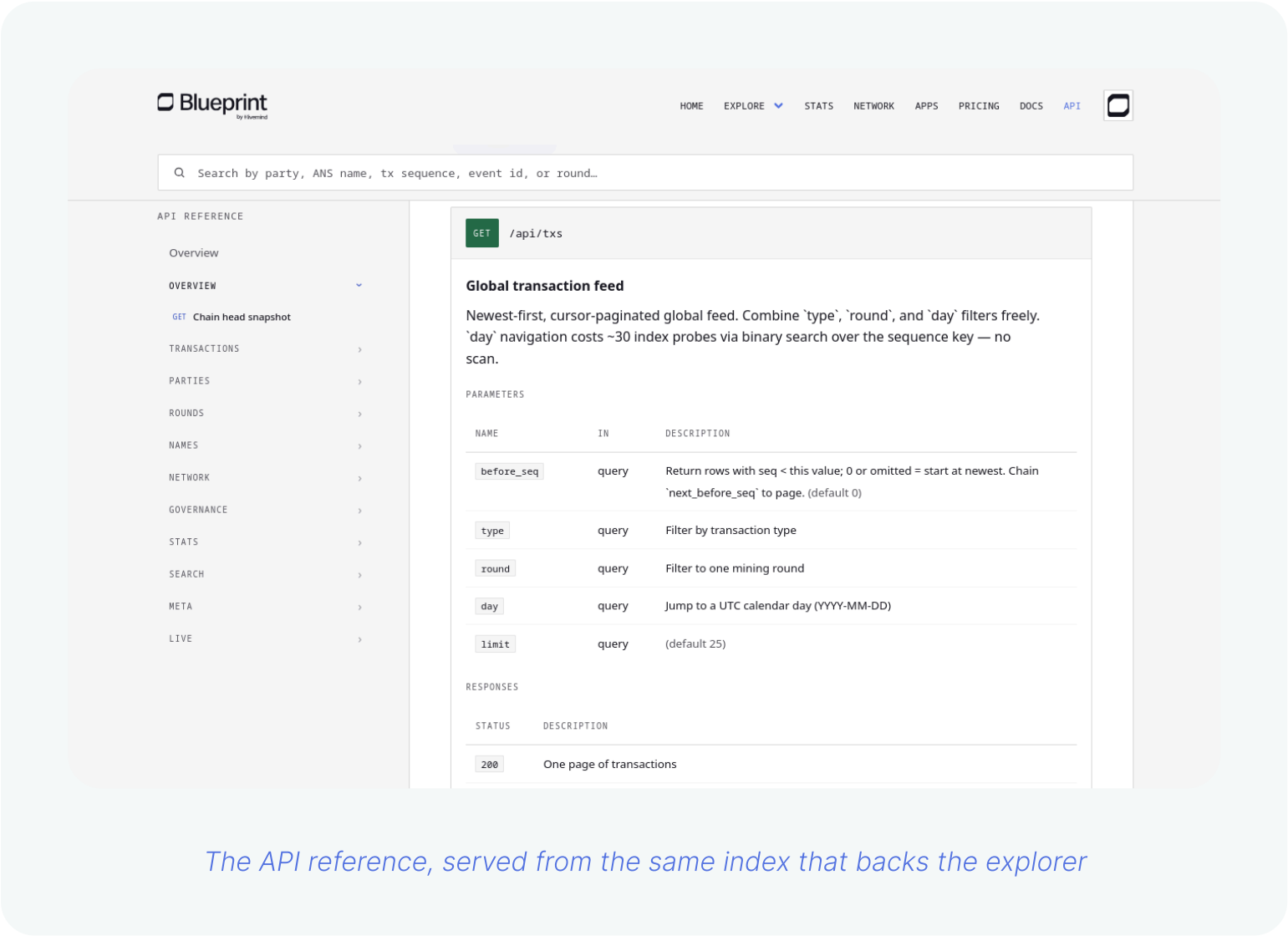
```
# Register: returns an API key with 50 trial actions on Canton MainNet
curl -X POST https://ccledger.xyz/api/v1/community/register \
  -H "Content-Type: application/json" -d '{"appName":"my-app"}'

# Attest: creates an immutable on-chain record, returns on-chain references
curl -X POST https://ccledger.xyz/api/v1/community/attest \
  -H "X-API-Key: YOUR_KEY" -H "Content-Type: application/json" \
  -d '{"appName":"my-app","dataHash":"9f86d081...","description":"Q2 close"}'
```

Three action types cover the record-keeping surface institutions actually need: attest, mutual attest, and mint. Every call creates a real Daml contract on Canton MainNet, not a sandbox artifact. The on-chain references return in the same HTTP response, typically within seconds: contract ID, transaction ID, ledger offset, synchronizer ID, ledger-attested timestamp. Production systems store them, cite them, and re-verify them against the ledger. And for moving value, CC Ledger relays real Canton Coin payments non-custodially: transfers are signed by the sender and settled on-chain, with CC Ledger acting as the application provider — it never holds customer funds.

Since the next wave of builders will not all be human, CC Ledger is agent-native. Twenty-two MCP tools live at a single endpoint (<https://ccledger.xyz/mcp>), so any MCP-capable agent (Claude, Cursor, LangChain or CrewAI stacks) can hold a key, submit Canton transactions, and verify its own proofs, with [11ms.txt](#) and an A2A agent card for discovery. Even funding is on-chain: send Canton Coin to our validator party and confirm the deposit with one API call. No card form, no invoice cycle.

One design rule governs all of it: the Canton ledger is the source of truth, and our database is just a cache. Every attestation, deposit, and payment on CC Ledger has an on-chain contract behind it. We think that is the correct standard for anyone claiming to sell blockchain infrastructure, and we hold ourselves to it.



Blueprint PMS: Reading and Writing to Chain

The first customer for this read and write capability was our own portfolio management system. Blueprint's PMS consolidates positions across custodians, wallets, and chains for asset managers, treasuries, and foundations, with real-time P&L and audit-ready reporting. It treats Canton the way it treats every other network it covers: as a source it must read completely or not at all. Under the hood, that coverage comes from the CC Scan API. Position data, transaction history, party activity: everything the PMS needs from Canton comes from the scan-and-index endpoints. The result is a system that can accurately track Canton balances and report detailed transaction activity across periods.

Then, the loop closes in the other direction. For clients that wish to leverage this functionality, each day, the PMS hashes a client's holdings (what we call a position batch: every holding at the account/wallet/asset level) and posts that hash to Canton MainNet as an [AccountingSnapshot](#) contract, storing the returned contract ID, transaction ID, and ledger offset beside the books as verifiable proof. The synchronizer-attested timestamp is one neither we nor any client can set or backdate.

Only the hash goes on-chain. Position information never leave our systems, and the record itself is invisible to every other network participant. Yet an auditor or another party handed the proof can check any snapshot against the Canton ledger and verify that this exact data existed, unaltered, at that exact moment. Canton is simultaneously a chain our PMS reads and the ledger it reports to. Client confidentiality gets mathematics; the audit trail gets a public network's finality. That is what "audit-ready" ought to mean.

— 4. Where This Goes

Two curves are converging. Tokenized real-world assets are compounding inside regulated venues, and the institutions driving that growth are precisely the ones that cannot operate in public state.

Meanwhile, software agents are becoming economic actors, and agents need deterministic APIs, cryptographic receipts, and privacy by default, not seed phrases and gas auctions. Canton sits where those curves cross: the network institutions already govern, now with a developer surface measured in minutes instead of months.

We came to this network with an allocator's skepticism, stayed as operators, and built as engineers. The result is a full stack we now offer outward: validator operations, CC Scan to read the network, CC Ledger to write to it, and the on-chain audit pattern our PMS runs in production.

— Talk to Blueprint

If you are an asset manager, treasury, or foundation that wants provable operations, or a team weighing a Canton build and staring down the infrastructure, we have likely already solved your first six months.

- **Explore the chain:** ccscan.theblueprint.xyz, every transaction, party, and balance since genesis; API docs at </docs>
- **Build on it:** register in seconds at ccledger.theblueprint.xyz; docs at </docs>
- **Monitor holdings:** track your CC holdings alongside other assets via the Blueprint PMS
- **Talk to us:** theblueprint.xyz · sales@theblueprint.xyz

Blueprint Overview

A word on who "we" are. Blueprint, a Hivemind ecosystem company, is building a unified operating system for digital assets, offering institutional staking and validators across 16+ protocols, a portfolio management system featuring front- and back-office tooling, and other data & development services. In late June, Nasdaq-listed Upexi announced a partnership with Blueprint to stake a portion of its Solana treasury, and we work with asset managers, treasuries, and foundations.

We spend our days where institutional capital actually touches chains: custody integrations, validator operations, reporting that has to survive an audit. Canton is the network where all three of those concerns converge.

BLUEPRINT

Blueprint is the institutional orchestration platform for digital assets, a Hivemind Capital Partners ecosystem company.

Learn more at theblueprint.xyz