

— PRODUCT OVERVIEW

The Crypto Lending Platform That *Explains Itself*.

Every other platform is building faster pipes. Aetherum gives your members a lending decision they can actually understand — and that explanation is the moat.

12

DACS RISK
PILLARS

18

PATENTS PENDING

5,000+

CREDIT UNIONS
REACHABLE

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Built for the member. *Deployed for the credit union.*

The market has been focused on speed for the institution. Aetherum is focused on trust for the member — and hands the credit union the infrastructure to deliver it.

LENDING

Crypto-Backed Lending

Members keep their crypto exposure, avoid a taxable event, and get USD liquidity — all through their trusted credit union. Aetherum handles the infrastructure. You own the relationship.

UNDERWRITING

Smart Review

AI-powered underwriting guidance evaluates the full borrowing position and explains it in plain language — recommended amount, risk level, and reasoning, instantly, at the point of decision.

PATENT PENDING

TAX INTELLIGENCE

Tax-Position Score & Optimizer (TPSOE™)

Scores the tax efficiency of each collateral position and ranks pledge assets to minimize member tax liability — a feature no D2C competitor offers institutions.

PATENT PENDING



— 02 · DACS

***A risk assessment model* built for crypto collateral.**

DACS quantifies a borrower's position beyond traditional metrics — in language the member can actually understand. Twelve pillars of crypto risk assessment, backed by 18 patent-pending innovations, with a plain-language explanation behind every decision. Not a number on a screen; the reasoning behind it.

[SEE THE 12 PILLARS →](#)



— 02 · DACS — THE TWELVE PILLARS

1 Wallet Age

on-chain longevity

2 Diversification

portfolio spread

3 On-Chain Activity

active management

4 Volatility

collateral resilience

5 Tax-Position Score

TPSOE · patent pending

6 TAM Bonus

verified holdings

7 On-Chain Identity

CUMember · patent pending

8 Privacy Computation

FHE-DACS · patent pending

9 Dynamic LTV

DACS-LTV · patent pending

10 Ledger Collateral Control

patent pending

11 XLS-66 LoanBroker

patent pending

12 Key Governance & Audit

patent pending

Tier 1 members access up to 70% LTV, Tier 2 up to 65%, Tier 3 up to 55% — enforced at the blockchain layer, no manual override.

Compliance *built in*, not bolted on.

IDENTITY

On-Chain Member Identity

ERC-3643 + ERC-7943 compliant verification. Each member gets a portable ONCHAINID attestation — KYC verified, jurisdiction gated, collateral-scored on-chain. Built on the T-REX standard for regulated RWAs.

PATENT PENDING

PRIVACY

Privacy-Preserving Underwriting (FHE-DACS)

Encrypted risk assessment via homomorphic encryption — member financial data is never exposed in plaintext during underwriting.

PATENT PENDING

ENFORCEMENT

ERC-7943 Collateral Token

The official Ethereum Universal RWA Interface — on-chain eligibility checks, regulatory freeze, and forced transfer, all delegating through three ERC-3643 compliance modules.

PATENT PENDING

CU OWNERSHIP

CU-Owned Identity Infrastructure

Aetherum deploys a ClaimIssuer and IdFactory contract on Base mainnet for each credit union — owned by the CU, not Aetherum. Member KYC eligibility is stored as a cryptographic claim on the member's ONCHAINID. Every claim issuance, transfer, and revocation generates an audit receipt for NCUA examination. Aetherum's signing authority is purpose-3 only and revocable by the CU at any time.

ERC-734 / ERC-735 · Base Mainnet

ERC-734 / ERC-735

ONCHAINID

Per-credit-union identity infrastructure deployed on Base mainnet. Each member's KYC clearance is stored as a cryptographic claim on their ONCHAINID — owned by the credit union, enforced by the chain. Every claim issuance and revocation generates a tamper-evident compliance receipt for NCUA examination.

CU-OWNED CONTRACTS

PATENTS PENDING



Every decision *examiner-ready* from day one.

RECEIPTS

On-Chain Compliance Receipts

SHA-256 hash of every decision written to Ethereum. Examiners receive a verification URL per decision; sensitive data stays off-chain. No other lending infrastructure provides this.

EXPLAINABILITY

DACS Explainability Layer

Auto-generated record after every scoring run — factor breakdowns, risk tier, peer comparison, plain-language rationale, and 12 CFR Part 723 citation. PDF export for NCUA submission.

PATENT PENDING

SUPERVISORY

Supervisory Control & Audit

Documented human-in-the-loop control over every position — NCUA-aligned event types, officer attribution, on-chain attestation, CSV examination export with Etherscan links.

PATENT PENDING

DILIGENCE

DDQ Engine

379-entry security knowledge base spanning NCUA guidance, custody, BSA/AML, and the full SIG framework. A CU IT team can complete a full vendor security review without a call.

LIVE

Money moves. *Collateral is watched.*

DISBURSEMENT

Multi-Rail Stablecoin

Pluggable multi-rail disbursement — USD & SGD across EVM networks, cross-chain transfer, and programmable MPC wallets. Migrating to Arc — The Economic OS · Stablecoin-native L1 — for USDC-native gas, sub-second deterministic finality, and native Circle-stack integration (USDC, CCTP, Gateway). Mainnet Q3 2026.

LIVE

CARD ISSUANCE

Card Funding Bridge

On approval, triggers white-label virtual card issuance funded by USDC disbursement. Member receives a branded credit union card instantly. Completing the borrow→disburse→spend loop for credit union members. Card partner: Nium (sandbox live, 200 OK confirmed). Rain MNDA signed.

PATENT PENDING · AETHERUM-018

NIUM SANDBOX LIVE

SURVEILLANCE

Collateral Intelligence Engine (CIE™)

Every position monitored 24/7 — finality-aware on-chain event processing, live LTV, DACS updated on every price move, institution-authorized liquidation control.

PATENT PENDING

MONITORING

Native LTV Monitoring

BTC and ETH collateral polled every 60 seconds via Blockstream and Alchemy — no third-party dependency. 30-day rolling volatility feeds DACS directly.

LIVE

OVERSIGHT

Liquidation Escalation

Three-tier human oversight: Tier 1 auto-executes, Tier 2 pages your risk officer with a 30-min window, Tier 3 requires officer authorization for \$250K+ or 40%+ drops. Every action timestamped.

LIVE



A view *for every seat* at the credit union.

LENDING

Loan Officer Portal

Review applications, assess DACS scores, manage active loans, and action margin-call alerts — purpose-built for crypto-collateralized lending.

COMPLIANCE

Compliance Officer

Siloed KYC/AML queue, sanctions monitoring, and audit-ready reporting — full visibility and control without touching operational loan data.

REGULATORY

NCUA Examiner View

Read-only audit dashboard scoped per CU. Live positions, LTV ratios, liquidation events, full BSA/AML trail. Zero custody access, zero execution permissions.

MEMBERS

Member Crypto Insights

Consent-based visibility into the assets members already own — DACS eligibility scoring and an opt-in loan pipeline. See what's invisible today.

PATENT PENDING



Four steps. *You own the relationship.*

1

Member deposits crypto collateral into an institutional custody wallet — held directly by the credit union, never by Aetherum.

2

DACS scores the borrower and Smart Review AI evaluates the application against NCUA guidance — returning a structured decision with compliance notes and a full audit trail.

3

The credit union issues the loan using existing infrastructure. Aetherum handles the rest.

4

Automated monitoring manages margin calls, top-ups, and liquidation if needed — with human oversight on every large position.

GENIUS Act ready. Aetherum was built inside the NCUA's regulatory perimeter — on-chain identity, per-CU custody, and compliance-first infrastructure designed to operate within supervision, not around it.

Full borrow → disburse → spend loop live in sandbox: Mesh collateral intake, RLUSD disbursement on Base, Nium card spend via Visa.

— 08 · INTEGRATIONS & HOW WE'RE PAID

LIVE INTEGRATIONS

Jack Henry FIN 5,000+ CUs reachable	Corelation KeyStone ~290 CUs day one	Fiserv AppMarket DNA platform
FIS Code Connect IBS Open APIs	XRPL / XLS-66 RLUSD loan currency	Pharos · Circle CCTP USDC, live testnet
Mesh Collateral Transfer Rail	Plaid Bank Data Connectivity · Certified	Arc Transaction Memos On-chain audit trail attached to every disbursement. Loan ID, member identifier, and branch code travel with the USDC transfer, indexed on-chain, readable by an NCUA examiner without querying a vendor database.
Sardine COMPLIANCE & FRAUD INFRASTRUCTURE		

REVENUE MODEL

- 01 Platform licensing fee (annual SaaS)
- 02 Per-loan origination fee
- 03 DACS API access for third-party integrations
- 04 RWA tokenization service fees (coming soon)

Credit unions keep 100% of loan interest income.



Aetherium

— 09 · GET IN TOUCH

Bring crypto-backed lending *to your credit union.*

Schedule a 30-minute demo.

We'll walk through the platform live — DACS, Smart Review, the audit-native trail — and answer any diligence questions.

[SCHEDULE A DEMO](#)

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