

CONSILIENCE SYSTEMS · SOCIETY OF EXPLORERS

The Technical Architecture

Data Layer, Sovereign Identity, Decentralized Compute, Tokenomics

BLACK PAPER

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societyofexplorers.com · 92B South St, Boston

I. Architecture Overview

Consilience Systems builds the infrastructure for a new self-sustaining internet: blockchain identity, AI orchestration, sovereign data, and decentralized compute. The architecture is organized in four layers:

Identity Layer: Base blockchain, soulbound ERC-721 (EIP-5192), TribeKey physical RFID device

Compute Layer: Distributed nodes, ExploreOS, AI inference on community hardware, pCell/pWave integration

Data Layer: Living Archive, IPFS/Arweave permanent storage, encrypted sovereign data, portable identity

Value Layer: \$EXP non-transferable token (Solana Token-2022), DAO governance, community treasury

II. The Identity Layer

Soulbound ERC-721 on Base (EIP-5192). Non-transferable, dynamically rendered on-chain SVG, UUPS-upgradeable. Current testnet deployment: SocietyNFT at 0x299DB7571c93fa42633df7A720ba3Af86e81fD1C on Base Sepolia. TribeKey extends this to physical space: RFID/NFC device carrying sovereign identity into the material world.

III. The AI Thinker System

Six thinkers served via SSE streaming (Anthropic Claude API). Each has a distinct system prompt (APPROACH/VOICE/MOVE), unique ElevenLabs voice, persistent memory (thinker_memory table), and agentic action capability (create_task, save_note, update_goal, create_artifact_prompt, schedule_ritual). Sentence-level TTS streaming delivers first audio within 1–2 seconds.

IV. The Living Archive

Consilience's personal data engine: every member's intellectual journey — reading history, thinker conversations, reflections, artifacts — stored in an encrypted, member-owned repository. Built on Supabase with planned migration to IPFS/Arweave for permanent, decentralized storage. The Archive is the foundation of data sovereignty: your data is yours, portable, and permanent.

V. The Network Vision

The long-term architecture is a new internet: pCell wireless technology for decentralized connectivity, pWave for signal processing, blockchain for accountable data, and ExploreOS as the operating system tying it together. Community members run nodes, earning \$EXP for providing compute, storage, and connectivity. 92B South St is the first node. The network grows from there.

VI. \$EXP Tokenomics

\$EXP on Solana Token-2022 with NonTransferable extension. Earned: 8 EXP per thinker conversation, 5 per Great Books section, 10 per reflection, 15 per artifact, 50/day per node operator. Spent: governance votes, premium features, artifact minting, event access. Not speculative — a pure contribution metric.

VII. Roadmap

Q2 2026: Base mainnet NFT, Living Archive alpha, cohort salons

Q3 2026: TribeKey physical prototype, decentralized inference pilot, TwiddleTwattle launch

Q4 2026: ExploreOS alpha, community node onboarding, governance via \$EXP

2027: Full decentralized data layer, pCell/pWave integration, multi-site temple network

2028+: Sovereign internet at scale, global node network, interplanetary infrastructure

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