Lumea

Omnichain restaking & liquidity: Litepaper

$LMA · v0.9 · demo draft

DEMONSTRATION PROJECT

Lumea is a fictional protocol and a portfolio demonstration only. It runs on the Sepolia testnet, with no mainnet, no real token sale, and no real funds. Nothing here is investment advice.

Abstract

Lumea is a fictional omnichain restaking and liquidity protocol. A single staked asset, $LMA, is used to help secure validator and operator sets across EVM chains; in return, stakers earn a share of protocol fees. This litepaper describes the mechanism, the token, and the security assumptions of the design.

This document is a portfolio demonstration. Lumea is not a real protocol, $LMA is not a real token, and nothing here is an offer, solicitation, or investment advice. The live demo runs exclusively on the Sepolia testnet.

The problem

Security in modular and multi-chain systems is fragmented. Each network, bridge, and service bootstraps its own trust, capital, and operator base. That duplicates cost and dilutes the economic security available to any single system.

Capital that secures one chain typically sits idle with respect to others. The result is lower aggregate security per dollar staked and a poor experience for operators who must manage many disconnected positions.

The Lumea mechanism

Lumea lets a holder restake $LMA once and have that stake counted toward securing multiple operator sets. Restaked balances accrue rewards continuously using a Synthetix-style rewards accumulator, so rewards are proportional to stake and time without per-user loops.

Operators run infrastructure that consumes Lumea security. Fees paid by these operators flow back to restakers. Because the accounting is share-based, the system scales to many participants while keeping gas costs bounded.

- Restake once. Security is shared across configured chains.
- Continuous, proportional reward accrual (earned() is always live).
- Pull-based claims, with no unbounded iteration over participants.

Operator Passes

The Lumea Operator Pass is a dynamic NFT representing an operator's standing. Each pass stores on-chain attributes (tier, power, and uptime) that evolve as the holder participates. As a holder stakes and calls evolve(), the pass advances and its generated artwork updates to reflect the new state.

Because attributes live on-chain and the token's metadata and image are rendered from that live state, the Operator Pass is genuinely dynamic rather than a static image pinned to storage.

Tokenomics

$LMA has a fixed illustrative supply of 1,000,000,000 tokens. Allocations fund staking rewards, treasury, team, liquidity, the genesis sale, and ecosystem programs, each on its own vesting schedule. Staking rewards are emitted over roughly four years on a decaying curve.

The genesis sale in this demo is a whitelisted testnet contribution flow: contributors send Sepolia ETH and later claim a proportional $LMA allocation from a pre-funded contract.

Security & trust assumptions

The demo contracts follow well-trodden patterns: OpenZeppelin v5 for ERC-20/ERC-721 and access control, a canonical Synthetix StakingRewards accumulator, and a pull-based presale guarded by ReentrancyGuard. Randomness used for NFT attributes is derived from block data and is explicitly not secure. That is acceptable only for a testnet demo.

No code here has been audited. Treat every contract as illustrative. On a real deployment, restaking introduces correlated slashing risk and additional trust in operator sets that this demo does not attempt to model.

Disclaimer

This litepaper and the Lumea application are a demonstration of engineering and design only. Lumea is fictional and runs on the Sepolia testnet. There is no mainnet deployment, no real token sale, no real funds, and no roadmap to launch. Nothing herein is financial, legal, or investment advice, and no real value is ever at stake.