Ontra: Institutional-Grade On-Chain Trading

Bringing professional execution and capital efficiency to Uniswap v4 through intelligent liquidity optimization

The Capital Efficiency Problem

Traditional DeFi

- Idle liquidity earns nothing
- LP positions sit dormant between trades
- Pending orders generate zero yield

Ontra's Solution

- Every dollar works for you
- Automatic Aave integration
- Yield on all inactive positions

Core Innovation: Rehypothecation Hook

Ontra automatically deposits pending order and inactive LP liquidity capital into Aave to earn yield. When execution is needed, the Hook withdraws funds in a single optimized batch, minimizing gas costs while maximizing capital efficiency.

Detect Idle Capital

Hook monitors pending orders and liquidity positions in real-time

Deploy to Aave

Automatically deposits inactive funds to generate yield

Execute On-Demand

Withdraws and executes in single transaction when needed

Technical Architecture

OntraHook

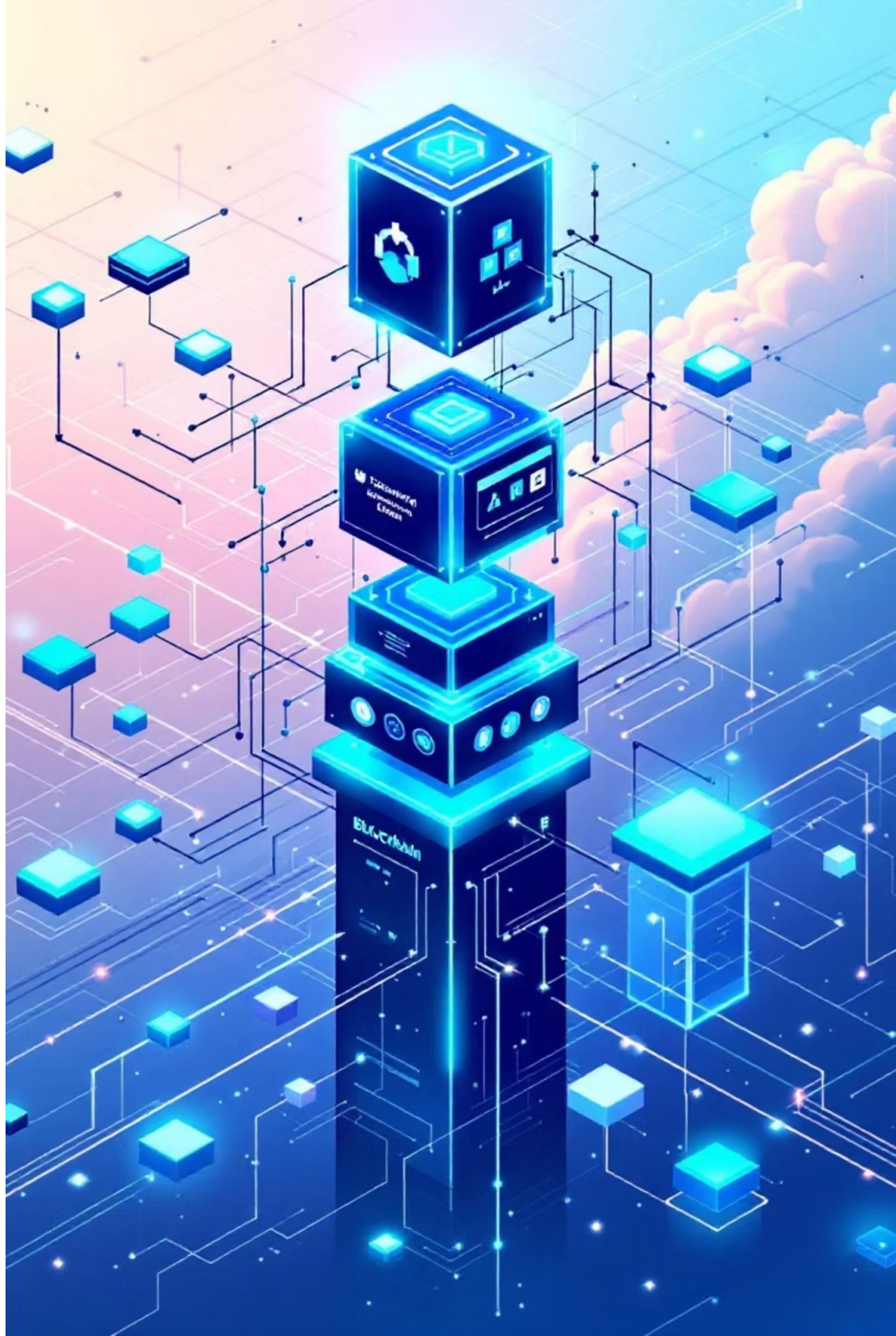
Fully On-chain system

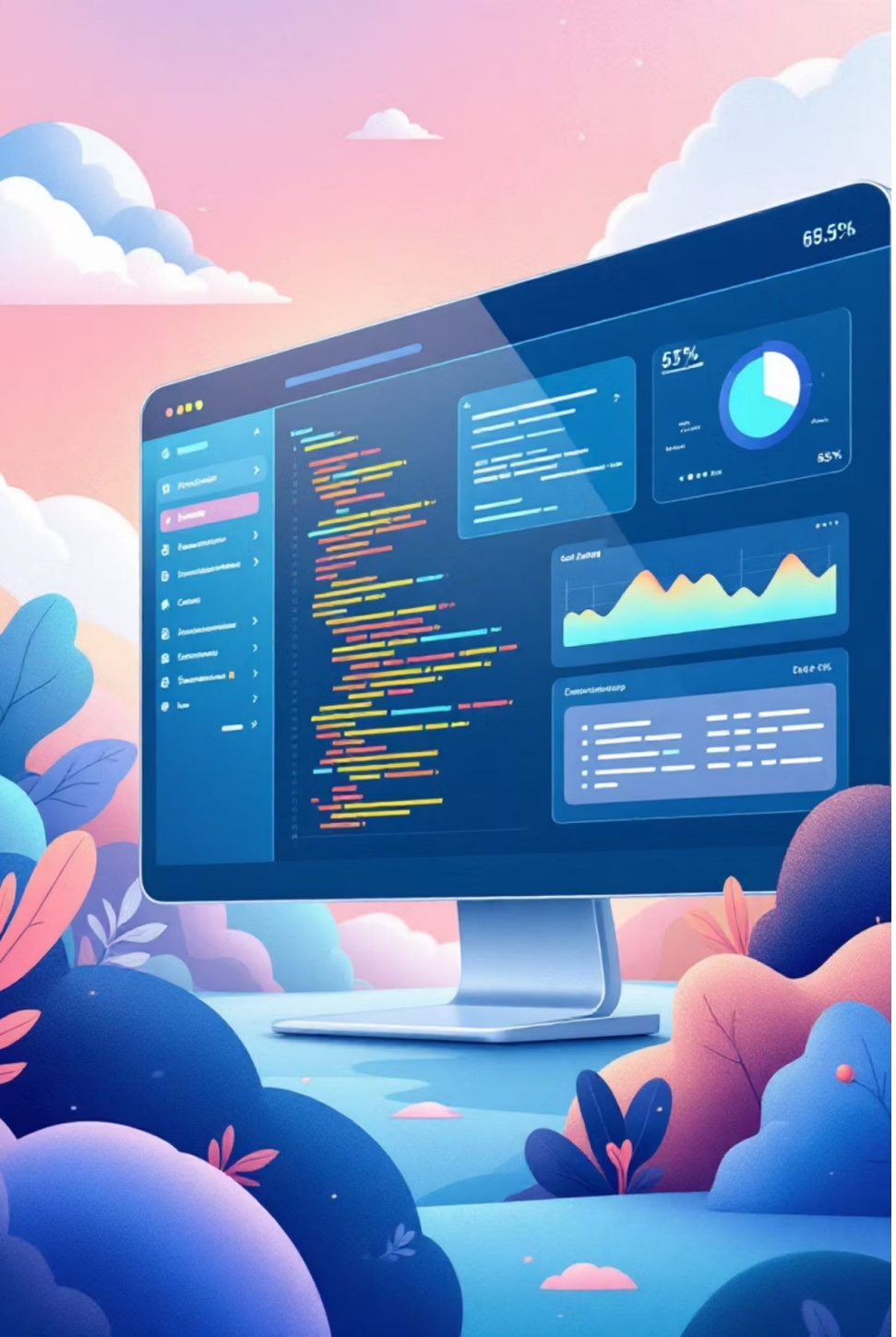
Aave Protocol

Automated deposits and withdrawals for yield generation

Uniswap v4 Hook

Native integration with v4 liquidity pools and swap routing





Implementation Status

✓ V2: Fully Operational

Trailing stop loss orders with Aave integration are live and tested. Pending positions automatically earn yield, and executed orders continue earning until withdrawal. All generated yield returns to order placers.

◐ V1: Partial Implementation

LP liquidity migration to Aave is functional but being refined. The foundation for automatic liquidity optimization is in place.

Deployment

Network:

Sepolia Testnet

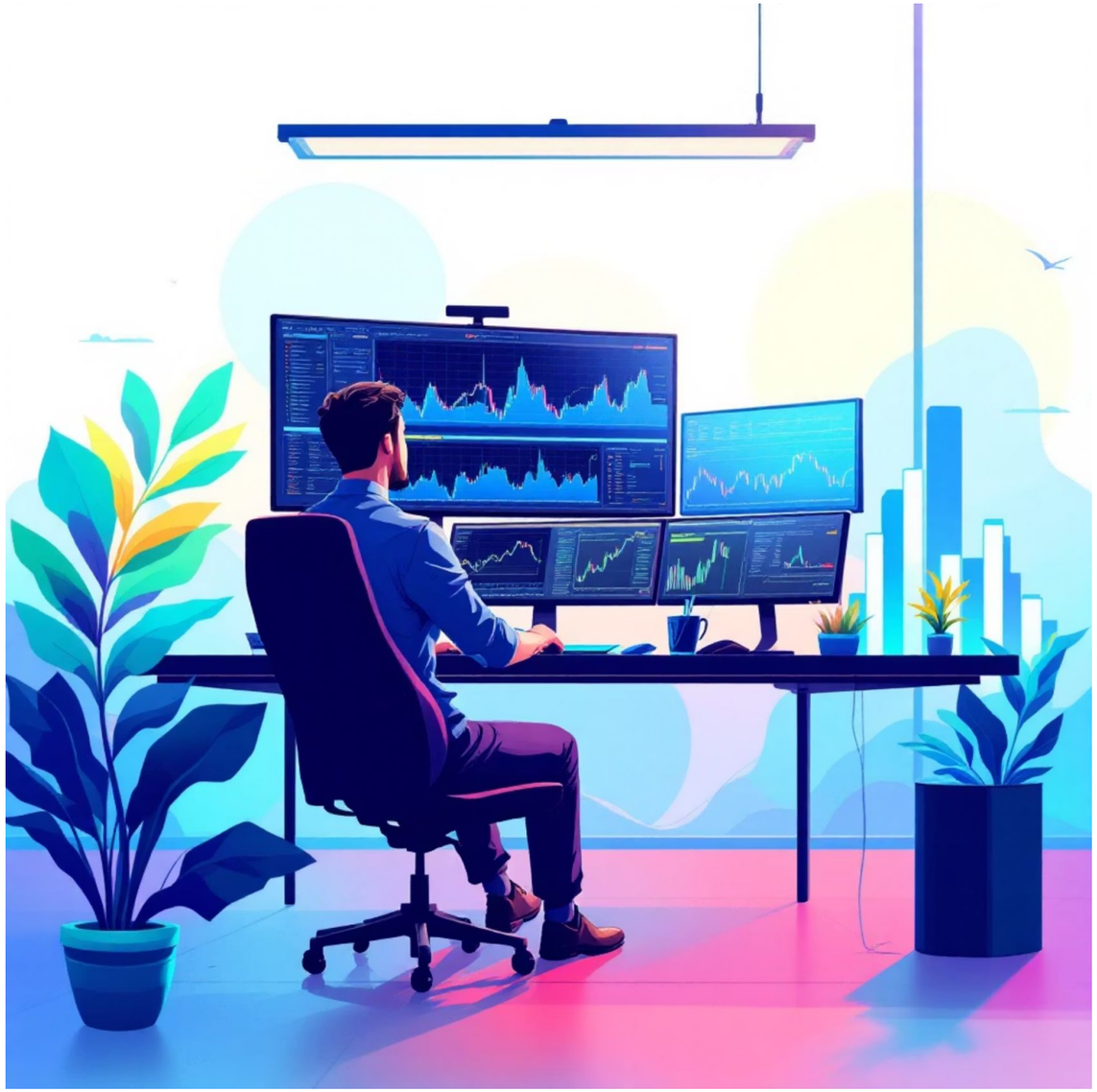
OntraV2Hook:

0xf318...9040

SwapRouter:

0xBD4C...896a

Key Differentiators



Capital Efficiency

100% of idle capital earns yield — no wasted opportunity

Gas Optimization

Batch withdrawals and efficient rebalancing minimize costs

Institutional Quality

Professional order types previously unavailable on-chain

Privacy Enabled

Fhenix FHE integration for hidden order execution

Fully On-Chain

No off-chain dependencies or centralized components

Professional Order Types

1

Trailing Stop Loss

Dynamic protection with 5%, 10%, or 15% trailing thresholds — earns yield until triggered

2

Limit Orders (soon)

Execute trades at specific price points with guaranteed fills and Aave yield on pending capital

3

Hidden Orders (soon)

Fhenix FHE-secured private orders that maintain execution privacy on-chain

Development Roadmap

Hookathon Scope

- Core Aave integration ✓
- Trailing stop orders ✓
- Test coverage >90%
- Testnet deployment ✓
- Fhenix FHE integration X
- Front-end interface ✓

Production Ready

- Comprehensive security audit
- Enhanced Aave validation
- Stress testing suite
- Mainnet deployment

1 2 3

Post-Hackathon

- Subgraph for indexing
- Limit order execution
- Gas optimization pass
- Production router with safety