

Close Out Report

Name of project and Project URL on IdeaScale/Fund

DeltaDeFi: Pioneering High-Frequency Trading on Cardano

(<https://projectcatalyst.io/funds/12/cardano-use-cases-mvp/deltadefi-pioneering-high-frequency-trading-on-cardano>)

Your Project Number

1200097

Name of project manager

Anson Chui (DeltaDeFi) - Project lead and primary contact

Date project started

September 2024

Date project completed

October 2025

List of Challenge KPIs and how the project addresses them

- Disruptive ideas for industrial innovation using Cardano blockchain and smart contracts
- Projects which make use of Cardano-based scaling solutions such as Hydra or alternatives

We addressed these KPIs by:

- DeltaDeFi is the first DEX to support high-frequency trading. It is disruptive to typical decentralized finance industry which takes long time to submit and confirm an order. Besides, there is no gas fee in order creation and cancellation
- Our project utilizes hydra as the layer-2 infrastructure to expedite the speed of transaction while maintaining the cardano security

List of Project KPIs and how the project addresses them

The proposal KPIs & Objectives have been stated and addressed such as:

1. Publicly Visible and Testable Prototypes

Our Preproduction testnet is available in <https://alpha-app.deltadefi.io/>. It includes most key features required for high-frequency trading (including low-latency order creation and cancellation, no fee for order creation and cancellation, nearly-instant update of market data, programmatic trading, etc.). We have arranged 2 public testnets for our users to test. Our first public testnet campaign managed to have over 100 user accounts and 300k transactions created within 1 week <https://x.com/DeltaDeFi/status/1973012168464642178>. Besides the campaign time, the preproduction testnet environment is being available to the public to test

2. Transparency and openness of development

All project outputs, repositories, and documentation were made publicly available (Github repos, API documentation, Discord announcements).

This ensured accountability and community visibility

3. Strengthening Cardano's DeFi ecosystem

Cardano has been complained by some users about the TPS and fee so that the users prefer using DeFi in other blockchains e.g. ethereum layer 2 and solana.

The rise of DeltaDeFi could help Cardano to compete with them.

Key achievements (in particular around collaboration and engagement)

- Established **transparent communication channels and documentation** (Discord announcements, public repos, documentation in gitbook).
- **Deployed public testnet** at <https://alpha-app.deltadefi.io/> with working high-frequency trading features
- **2 testnet launch campaign to attract testing:**
 - <https://x.com/DeltaDeFi/status/1968643184843690094>
 - <https://x.com/DeltaDeFi/status/1981761621489054081>

Key learnings:

- **Capacity planning matters:** Hydra/UTxO throughput and node sizing require deliberate headroom; automated failover is essential.

- **UX speed vs. safety:** Minimizing confirmation steps improves speed but increases mis-click risk—UI affordances and visual checks mitigate errors without blocking flow.
- **Observability is non-negotiable:** p50/p95 latency, error budgets, and incident postmortems must be first-class for HFT-grade services.
- **Bug bounty operations:** Clear rules (including duplicate handling) accelerate triage and keep contributor goodwill high.

Next steps for the product or service developed

- **Production hardening & mainnet:** finalize infra SRE patterns, conduct more community audit and testing, document runbooks.
- **Liquidity boosting:** Continue engaging with market making partners and staking vault hosters to make sure there is sufficient liquidity in the orderbook during mainnet launch
- **Roadmap:** continue R&D toward perps and advanced order types; performance testing at scale.

Final thoughts/comments:

This project successfully delivered a MVP on high-frequency trading in Cardano powered by Hydra. Despite delays, the milestones were completed with thorough documentation and live deployments.

Links to other relevant project sources or documents

Proposal on Project Catalyst website:

<https://projectcatalyst.io/funds/12/f12-cardano-use-cases-mvp/deltadefi-pioneering-high-frequency-trading-on-cardano>

Proposal Milestones: <https://milestones.projectcatalyst.io/projects/1200097>

Frontend & Backend integration video:

youtube.com/watch?v=jmaohJlfuM4&feature=youtu.be

Open-sourced smart contract repo: <https://github.com/deltadefi-protocol/deltadefi-scripts>

Open-sourced backend repo: <https://github.com/deltadefi-protocol/deltadefi-backend>

Close-out Video Link: <https://youtu.be/MwulBi9HsLs>