Final Report

Aug 3 2025 - Prepared for Project Catalyst ID 1100092

1. Name of project and Project URL on IdeaScale/Fund

CHARLI3 - Off-Chain & CNT Price Feeds (Community feed expansion) Proposal:

https://projectcatalyst.io/funds/11/cardano-use-cases-solution/charli3-off-chain-and-cnt-price - feeds-community-feed-expansion

Statement of Milestones:

https://milestones.projectcatalyst.io/projects/1100092

2. Your Project Number

Project 1100092

3. Name of project manager

Robert Hever

4. Date project started

Mar 11 2024

5. Date project completed

Aug 3 2025

6. List of challenge KPIs and how the project addressed them

Fund11 Cardano Use Cases: Product: Description and Requirements

Category Goal: "proposed technology solution must be for the benefit of the Cardano

ecosystem"

Examples: "oracles"

In addition to providing freely accessible oracle price feeds to the community, our team delivered an upgraded front-end interface (portal.charli3.io) and a mechanism to donate to the community price feeds (https://portal.charli3.io/dev/community/support).

As noted in our final feed report, we plan to open source our V3 Oracle Networks and migrate our community price feeds to our partnerchain solution, thereby extending their availability for potentially 12 more months.

Although the project did progress as expected, we worked actively with the community to determine the right path forward for us. We believe we are successful in meeting the category requirements.

7. List of project KPIs and how the project addressed them

The first **Key Performance Indicator** for the project was providing as many oracle price feeds as possible for as long as possible. It was clear from the start that we were not on track to meet our initial estimate of 30 oracle price feeds available for 12 months due to several reasons described within our <u>Change Request</u> and <u>Milestone 4 Report</u>. In short, the project was not progressing as planned. Instead of failing to deliver, we coordinated with the community (with a public vote) to adjust the parameters of the project.

After 3 months it was clear we weren't going to hit this first KPI. We adjust our project plan and now 18 months after the start, we have an optimistic outlook that we can surpass our initial plans through our partnerchain solution.

The second **Key Performance Indicator** for the project was maintaining 99.95% uptime. Although other companies are okay with their oracle networks going down for hours, days, or even weeks – the Charli3 team takes pride in delivering enterprise grade SLAs. Without a question of a doubt, we hit this KPI out of the park by maintaining 100% ecosystem uptime since Oct 2022! See a copy of our publicly available network performance report <u>here</u>.

The Third **Key Performance Indicator** was delivering a front-end user experience including a donation mechanism. This was delivered promptly in milestone 2 ahead of schedule. You can view it here: <u>portal.charli3.io</u>.

8. Key achievements (in particular around collaboration and engagement)

Here is a list of the key achievements during this project:

1. Front-end Launched!

a. Launched <u>portal.charli3.io</u> the front-end user interface for browsing the available community oracle price feeds

2. Donation Mechanism Added

 Added a mechanism for users to directly "top-up" oracle price feeds by donating C3 to them: https://portal.charli3.io/dev/community/support

3. Community vote

 a. Conducted a 200+ person community vote to pivot the project scope to adapt to unexpected external dependent variables: https://oraclecharli3.medium.com/c3-catalyst-update-community-data-feeds-fund-058ba47eef2e

4. Maintain Price feeds for 8 months or longer at 99.95% uptime

a. The community price feeds averaged 10 month of uptime as of August 2025, and with our plan to migrate to the partnerchain, we could extend that average to 20 months. See the exact uptimes in this chart: https://drive.google.com/file/d/1zFvBk4qn2dI2K6NICfRscVSeee6MbaO8/view

9. Key learnings

Cardano is not a stablecoin. There is a gap between proposing a project, submitting a statement of milestones, submitting project POAs, and receiving funding. The time between those events introduces risk to the project. This is well known by our team. However, in this particular project the gaps were a lot longer (the Christmas holiday break added to it). Likewise, the presidential election introduced aggressive USD price movements on ADA.

It is critical that anyone proposing a project for catalyst that gets awarded funding reassess the state of the market and the price of ADA at each of the above junctions.

Oracle Demand is still low. Cardano's DeFi and Lending protocols are seeing relatively low volume (compared to the wider blockchain industry) and relatively stable markets. Our assumption and forecast saw increased market volatility and volume in Cardano in 2024. This did not occur and as such demand for oracle price feeds remains low. It isn't until protocols encounter wide-scale liquidations and failures will the demand for oracle price feeds increase. As such, we have a small but passionate group of builders in our community who place security over their user's funds as a top priority. They clearly communicated to our team which feeds were most important to them and we kept them live during our change request.

Always prepare a plan B. Ideally every project goes to plan, but often you need to make micro adjustments. In the case of this project, we made a large pivot. Ultimately we believe this will pay off in greater value for the community.

Education is needed. Despite providing free oracle price feeds, we know many projects opted to rely on centralized or internal solutions. There are significant risks in the alternatives and until the builders are educated to the value of an oracle network, adoption may remain low.

10. Next steps for the product or service developed

Phase 1: Wind-down of community feeds

We will terminate all mainnet price feeds except ADA/USD in the month of August 2025.

Phase 2: Open-Source of V3 Oracle Networks

Our team believes that community adoption of oracle price feeds is a necessary step of growth for Cardano. DeFi and Lending protocols operate at high risk levels for their users without the security guarantees of a decentralized oracle infrastructure. We firmly believe that as volume increases and/or volatility of the market increases, these protocols are at significant risks. The community feeds the project as an attempt to serve these protocols and entice them to protect their users' funds. In an effort to drive adoption, we're going to open source our V3 Oracle network solution. Today, our node software and datum standard are open source (MIT License). We plan to release an open source package by Oct 2025 to the public.

Phase 3: Relaunch Community Feeds on V4 Partnerchain

The Charli3 partnerchain solution is almost complete (see project details here). Unlike other off-chain Oracle solutions that provide centralized reporting to prove data integrity, our partnerchain retains the on-chain auditability and security guarantees of Cardano mainnet. By migrating our community price feeds onto the partnerchain solution, we can reduce costs by as much as 70% and extend the availability of feeds for potentially 12 months or more.

Additionally, we are able to bundle feeds into a single update. It is theoretically possible for us to post 100+ token updates on-chain every 20 seconds. Although we are targeting at a minimum the same price feeds running during this project for an additional 12 months.

Budget and Costs

The ADA will be used to complete phases 1-3 while the remaining C3 tokens will act as funds to keep the remaining. Approximately USD\$25,000 is required to host several federated nodes, alert and monitoring systems, and conduct maintenance over a 12 month period.

3 Estimated Availability

Aug 2025 - Oct 2025: ADA/USD available

Oct 2025 - Oct 2026: All project feeds available + additional feeds at a faster heartbeat

11. Final thoughts/comments

Our team contributed over 1.3M tokens to the fund. We are doing everything in our power to drive adoption of critical infrastructure to enable Cardano scaling (from supporting the project with large gaps in funding to educating users).

We genuinely want all the projects on Cardano to succeed. If the major projects are not utilizing a dedicated oracle solution before a next bull market, Cardano users may experience catastrophic loss and it may prevent the chain from getting to the next level of success.

This project is our plea to the chain to be proactive instead of reactive – here it is, for free!

Ultimately, you can lead a horse to water, but you can't force them to drink.

12. Links to other relevant project sources or documents.

Front-end Portal:

portal.charli3.io

Donation Mechanism:

https://portal.charli3.io/dev/community/support

Developer documentation:

https://docs.charli3.io/oracles

Change Request:

 $\underline{\text{https://drive.google.com/file/d/11rppE5vKqzHWk0HRifJ7VBJJJ1LDQQnn/view?usp=drive_li} \\ \underline{n} \ \underline{k}$

Price Feed Report:

https://drive.google.com/file/d/1IDrFxBbtq91udyKyiVbgaYsviceiNT6b/view?usp=sharing

Network Performance Report:

 $\underline{\text{https://drive.google.com/file/d/1eSmTsCgqTIfBAUAaBA-RbxYkFinvDDFR/vie}}\underline{w}$

Close Out Video:

https://vimeo.com/1107246321/aaf98e19a5?share=copy

13. Link to Close out video - must be either YouTube or Vimeo link only

https://vimeo.com/1107246321/aaf98e19a5?share=copy