



Linkage Finance

A Decentralized Fund Protocol On The Cardano Blockchain

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Abstract

We are proposing decentralized funds as a promising new investment vehicle that utilizes blockchain technology to invest in a collection of tokens at once. By leveraging smart contracts and decentralized infrastructure, decentralized funds offer increased transparency, security and accessibility compared to traditional funds. In this Whitepaper, we propose the Linkage Protocol as a new decentralized fund protocol leveraging the Cardano blockchain.

Disclaimer: This paper is intended for general information purposes only. It is not intended as investment advice and should not be used to make any investment decision. The information and concepts provided in this Whitepaper are subjected to change.

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1 Our Mission

Cardano's growing ecosystem becomes home to more and more projects and business ideas. While the enormous number of projects creates a flourishing ecosystem, it challenges investors. It gets increasingly difficult to invest in projects if the number is constantly rising. The time needed to do diligent research is increasing and buying and selling tokens takes more time. As well, fees can drive costs up as Decentralized Exchanges demand fees in addition to Cardano network fees. A decentralized fund approach could avoid the problems mentioned above, by simplifying the process of investing in the broader market. This approach also allows for funds in different fields of blockchain technology, like funds consisting of Decentralized Exchange Tokens or AI Tokens. While Funds are a well-established and appreciated method of investing in the traditional finance world – this concept is not used in decentralized finance yet, where it could bring the same kind of benefits to digital assets and even more. The Linkage Protocol does not only leverage blockchain technology it also brings various benefits compared to traditional funds. By leveraging smart contracts, the community can create a non-custodial, transparent fund that guarantees a one-to-one backing with its real value and the option to withdraw the underlying assets at any point. It is time to bring easy and hurdle-free ways of investing to the blockchain world and work with the community towards an easily accessible ecosystem.

Linkage Finance

The clever way to buy them all.

2 Linkage Protocol

2.1 Overview

The Linkage Protocol, leveraging the robust Cardano blockchain, introduces a groundbreaking approach to creating decentralized financial instruments. This platform empowers investors with the means to construct and participate in a diversified portfolio of digital assets through decentralized funds. At the core of Linkage Finance's offering is the "Linkage Interface," a sophisticated user interface designed to deliver comprehensive insights into the decentralized funds available. This interface, coupled with a suite of analytical tools, facilitates real-time tracking of the blockchain's state, thereby ensuring transparency and up-to-date information for all participants.

Central to the protocol's innovation is the capability afforded to all users to create their personalized funds. These funds are tailored to track a specific array of tokens, allowing for a customized investment strategy that aligns with individual preferences and risk profiles. Through the Linkage Protocol, the intricate process of asset management becomes accessible, transparent, and secure, fostering a new era of investment opportunities on the Cardano blockchain.

2.2 Smart Contract Overview

The smart contracts are intricately designed to facilitate the operation and management of the fund in a decentralized manner, leveraging the power and security of blockchain technology.

The protocol meticulously outlines the rules and conditions governing the fund's operations, including the precise mechanisms for adding or removing assets. These smart contracts are pivotal in managing the fund's assets and balances efficiently.

By integrating Plutus contracts on the Cardano blockchain, the Linkage Protocol harnesses the security, reliability, and scalability offered by blockchain technology. The smart contracts' openness and transparency are key features, enabling investors to thoroughly verify the fund's rules and operations. This ensures that the fund operates in a manner that is both fair and transparent. Consequently, with the Linkage Finance smart contracts, investors are assured of the security and integrity of their investments.

2.3 Deep Dive into Linkage Protocol Insights

Linkage Finance is on the brink of unveiling its pioneering protocol, designed to empower users to establish decentralized funds that track specific groups of tokens. The inaugural version of the protocol will permit users to create a fund encompassing a curated selection of tokens. The specific tokens

and their predetermined ratio will be established at the time of the fund's inception.

To initiate a fund, users are required to deposit ADA into the fund request contract. This deposit will then be converted into the native assets needed to forge the fund. This conversion process is facilitated by any participating decentralized fund bot, which is rewarded with a fee for the conversion service.

A critical aspect of this system is the direct linkage of the added assets to the user's wallet, ensuring that users retain a connection to their investments. This linkage offers users the flexibility to withdraw the underlying assets at any time or to convert them back into ADA, providing a level of liquidity and control that is highly valued in the decentralized finance space.

This enhanced and clarified description of the Linkage Protocol and its insights offers a comprehensive understanding of its operations, benefits, and the innovative opportunities it presents to users seeking to engage with decentralized funds on the Cardano blockchain.

3 Linkage Protocol Flow

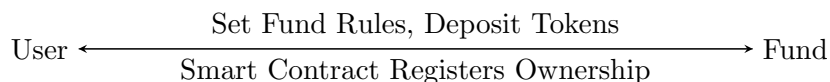
The smart contracts establish the rules for fund operation, including processes for adding or removing assets from the fund and placing requests to transform a payment token to funds.

We will now delve deeper into the key transaction interactions a user can engage in with the Linkage Finance smart contracts, including fund creation, adding tokens to the funds, withdrawing from the fund, and utilizing decentralized request contracts. This information is intended to offer a comprehensive understanding of how the Linkage protocol functions from a user's perspective and is subject to change.

3.1 Basic Contract Flow

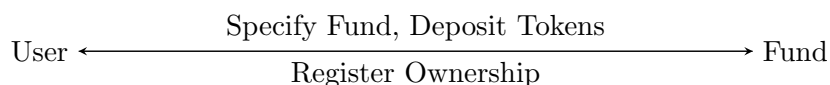
3.1.1 Initial Fund Creation

Users can create their own decentralized funds tracking a specific group of tokens. To do so, they must deposit tokens in a predefined ratio to the fund. Upon deposit, the smart contract tracks their ownership in the fund.



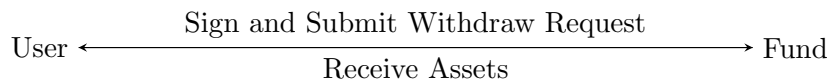
3.1.2 Adding additional tokens to the Fund

After fund creation, users have the option to add more tokens to the fund. They can do so by depositing more tokens into the smart contract and following the same protocol parameters.



3.1.3 Withdrawing from the Fund

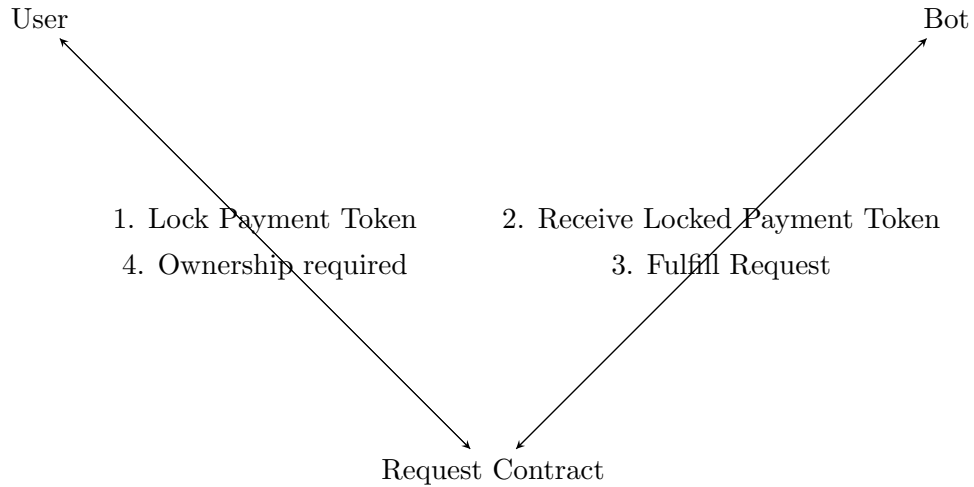
Users can withdraw their share of the fund by removing tokens and signing the ownership with their wallet. Upon withdrawing, they receive the underlying assets that are stored in the smart contract.



3.2 Request Contract

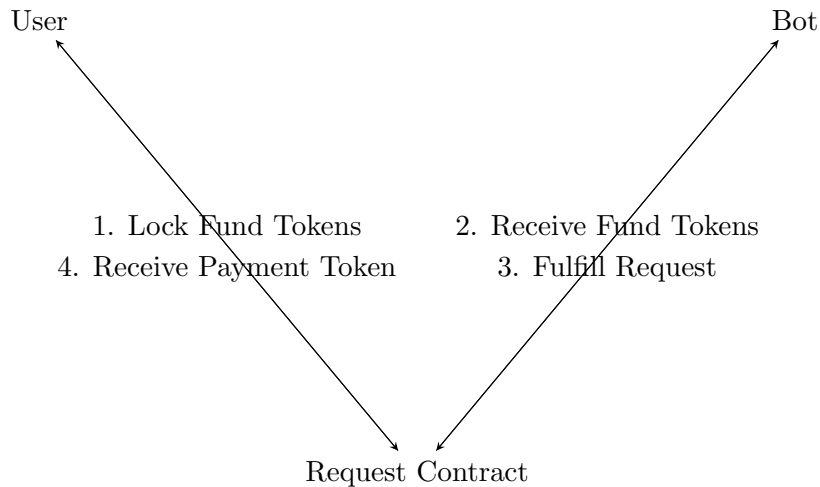
3.2.1 Adding to Fund through Request Contract

Alternatively to direct token provision, users can lock ADA or another payment token in a decentralized request contract. In this setup, any bot (without needing a special license) can fulfil the user's request by taking the locked payment token and locking the request tokens of the fund in exchange (ensured by the smart contract).



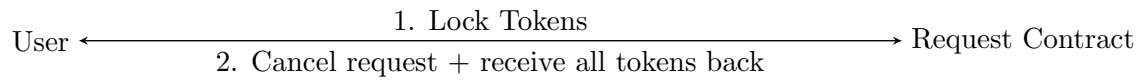
3.2.2 Withdrawing from Fund through Request Contract

Alternatively to direct token withdrawal, users can lock their fund tokens in a decentralized request contract. In this setup, any bot (without needing a special license) can fulfil the user's request by taking the fund tokens and providing the user with the required payment tokens in exchange (ensured by the smart contract).



3.2.3 Cancelling a Request

Users also have the ability to cancel their requests in the request contract. Upon cancelation, the user can reclaim their locked payment token/ fund tokens. Note that this can only be done if a bot has not yet fulfilled the request.



4 The LIFI Token

The Utility-Token of Linkage Finance is called LIFI-Token, a Native Asset on Cardano with the ticker symbol “LIFI”. The LIFI-Token is designed to power the Linkage Protocol and to provide a range of benefits for LIFI-Token holders. LIFI-Token holders can use the LIFI-Token for community governance purposes by voting on the Linkage Protocol.

4.1 Utilities

LIFI-Token unlocks a world of possibilities within the Linkage Finance ecosystem. As a token holder, you possess exclusive rights to generate new funds, vote for featured indexes, access advanced analytics, enjoy reduced transaction fees, and help shape the future of the platform through voting on proposals. Embrace the power of LIFI-Token and elevate your investment journey with Linkage Finance, where participation, rewards, and community-driven decision-making converge.

1. **Exclusive Fund Generation:** Only token holders within the Linkage Interface have the privilege to create new funds.
2. **Voting Rights for Featured Funds:** Token holders possess voting rights, enabling them to actively participate in determining which funds are showcased as featured on the Linkage Interface.
3. **Early Access to Analytics:** Token holders gain early access to cutting-edge analytics features. This advantage provides them with valuable insights and data-driven decision-making tools, facilitating informed investment strategies.
4. **Reduced Fees for Transactions:** Token holders enjoy the benefit of reduced fees
5. **Voting on Proposals:** Token holders have the right to vote on various proposals, offering their recommendations to the core team (subject to acceptance)

Please note: We reserve the right to modify, add, or remove token utilities as necessary to adapt to evolving market conditions, technological advancements, and regulatory changes. Any such modifications will be communicated to Token holders in a timely manner.

5 Roadmap

The Roadmap outlines the development plans for Linkage Finance. It includes all major components including the Linkage Interface and the first version of the linkage finance protocol. The roadmap is subject to change.

Q3 2023

- Development of Linkage Finance Protocol
- Development of Linkage Finance Interface
- Private Testnet of Protocol and DApp

Q3-Q4 2023

- Public Testnet Phase 1 of Protocol and DApp

Q1 2024

- Public Testnet Phase 2 of Protocol and DApp
- Linkage Finance Community Forum
- LinkageFinance Governance Vote

Q2 2024

- Testnet Phase 3 of Linkage Interface and protocol
- Security audit of Linkage protocol
- Mainnet Launch of Interface and Protocol v1

Q3 2024 and beyond

- The Linkage journey continues
- Development of Linkage Finance v2