



Linkage Finance

A Decentralized Fund Protocol On The Cardano Blockchain

The Linkage Finance Team

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Abstract

We are proposing decentralized funds as a promising new investment vehicle that utilizes blockchain technology to track the performance of market indexes. By leveraging smart contracts and decentralized infrastructure, decentralized funds offer increased transparency, security and accessibility compared to traditional funds. In this Whitepaper, we propose Linkage Finance and 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 Index Fund approach could avoid the problems mentioned above, by simplifying the process of investing in the broad market. This approach also allows for Index Funds in different fields of blockchain technology, like Index Funds consisting of Decentralized Exchange Tokens or Metaverse Tokens. While Index 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 built by Linkage Finance does not only leverage blockchain technology it also brings various benefits compared to traditional Index 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 Finance

2.1 Overview

Linkage Finance is a protocol built on the Cardano blockchain enabling decentralized funds. The decentralized funds will allow investors to gain exposure to a diversified portfolio of assets. The Linkage Finance DApp includes several technical components, including smart contracts that specify the rules for how the fund operates ("Linkage Protocol") and a user interface ("Linkage Website") for interacting with the decentralized funds. All users will be able to create their own funds tracking a specified basket of tokens. Moreover, Linkage Finance is planning to introduce its own indexes "Linkage Index" based on which decentralized funds will be created.

2.2 Linkage Protocol

The Linkage Finance smart contracts are designed to facilitate the operation and management of the fund in a decentralized manner, using the power and security of the blockchain.

The Linkage Finance smart contracts specify the rules and conditions for how the fund operates, including how assets are added or removed from the fund, and how investors can buy and sell shares in the fund. The smart contracts also enable the management of the fund's assets and balances.

By using Plutus contracts on the Cardano blockchain, the Linkage Protocol benefits from the security, reliability, and scalability of the blockchain. The smart contracts are open and transparent, allowing investors to verify the rules and operations of the fund, and ensuring that the fund is run in a fair and transparent manner. With the Linkage Finance smart contracts, investors can have confidence in the security and integrity of their investments.

2.2.1 Linkage Protocol Insights

Linkage Finance is set to release its protocol, which will enable any user to create decentralized index funds tracking a specific group of tokens. In addition, Linkage Finance will create decentralized Index Funds for its own Linkage Indexes. This version of the protocol will allow users to create a fund that holds a selection of tokens, the specific tokens and their fixed ratio to be determined at the time of fund creation. To create a fund, users must add the predefined ratio of tokens to the fund, after which they can mint Fund-Tokens (L-Tokens) representing their share in the new fund. Users can also mint additional L-Tokens by adding the required ratio of underlying tokens to the fund at any time. Users can withdraw their share of the fund by burning L-Tokens and receiving the underlying asset.

2.3 Linkage Protocol Flow

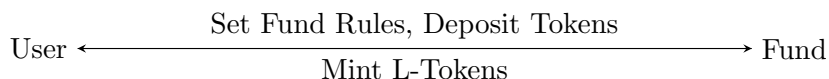
The smart contracts establish the rules for fund operation, including processes for adding or removing assets from the fund, minting or burning Fund-Tokens (L-Tokens).

Users can interact with Linkage Finance either directly at the protocol level or via the Linkage Finance website. The former method requires more technical knowledge but does not incur any additional fees. The latter offers ease of use and added convenience, but at the expense of a small interaction fee.

We will now delve deeper into the key transaction interactions a user can engage in with the Linkage Finance smart contracts, including fund creation, minting of additional L-Tokens, 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.

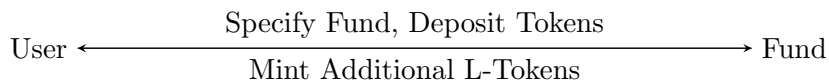
2.3.1 Initial Fund Creation

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, they mint Fund-Tokens (L-Tokens), which represent their share in the fund.



2.3.2 Minting Additional L-Tokens

After fund creation, users have the option to mint more L-Tokens. They can do so by depositing more tokens into a specific fund, maintaining the ratio initially set during the fund creation.



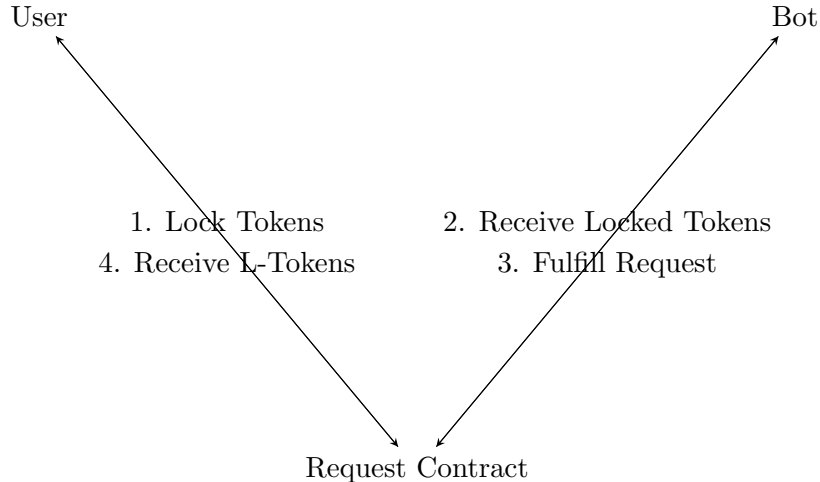
2.3.3 Withdrawing from the Fund

Users can withdraw their share of the fund by burning their L-Tokens. Upon burning, they receive the underlying assets that the L-Tokens represent.

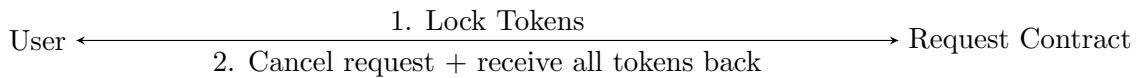


2.3.4 Minting L-Tokens through Request Contracts

Alternatively to direct token provision, users can lock ADA or another 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 tokens and providing the requested L-Tokens in exchange (ensured by the smart contract)



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



2.4 Linkage Interface

The Linkage Finance website provides investors with a range of functionalities, including fund information and minting/burning. Investors can use the website to view and analyze the fund's performance, and mint and burn new tokens added to the fund. With Linkage Finance, investors can access a professionally managed, diversified portfolio of assets in a decentralized and transparent manner.

2.5 Linkage Indexes

Linkage Indexes are financial instruments that track the performance of different Cardano tokens, which are digital assets that operate on the Cardano blockchain. These indexes provide investors with a way to monitor and measure the value of their Cardano token investments. There are various Linkage Indexes available, each tracking a specific set of Cardano tokens or a particular market segment. For example, there may be a Linkage Index that tracks the performance of Cardano tokens

issued by a particular company or industry, or a Linkage Index that tracks the performance of a specific type of Cardano tokens, such as Stablecoins.

Linkage Indexes can be used by investors to diversify their holdings and mitigate risk, as well as to gain exposure to the overall performance of the Cardano native asset market. They can also be used by financial analysts and researchers to study trends and patterns in the Cardano token market. Overall, Linkage Indexes provide a useful tool for investors and market participants looking to track the performance of Cardano tokens and gain insight into the health and direction of various different markets.

3 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 governance purposes by voting on the Linkage Protocol.

3.1 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 actively 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 Protocol have the privilege to create new funds.
2. Voting Rights for Featured Indexes: Token holders possess voting rights, enabling them to actively participate in determining which indexes are showcased 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 for minting and burning transactions conducted through the Linkage Interface.
5. Voting on Proposals: Token holders have the right to vote on various proposals, offering their recommendations to the core team.

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.

4 Roadmap

The Roadmap outlines the development plans for Linkage Finance. It includes all major components including the Linkage Indexes, the Linkage DApp and the first version of our Linkage Protocols. Moreover, we will put a big focus on making partnerships within the Cardano ecosystem and building up a vibrant community on Social Media.

The team is currently working on the following tasks and envisions the following goals

- Development of LIFI utility token
- Development of Linkage Finance DApp (backend and frontend infrastructure)
- Development of Linkage Finance Protocol

Goals for Q3 2023

- Release of Linkage Indexes
- Development of Linkage Finance DApp
- Private Testnet of Protocol and DApp

Q3-Q4 2023

- Public Testnet of Protocol and DApp
- Security audit of Protocol

Q1 2024

- Mainnet Launch of DApp and Protocol
- Launch of Linkage off-chain governance

Q2 2024

- The Linkage journey continues