



Proposal: Addition of ckLTC to the ICP Protocol
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1 .Overview:

The proposal aims to add ckLTC (Chain-key Litecoin) to the Internet Computer Protocol (ICP) ecosystem as an ICRC-1-compliant token. Similar to ckBTC, ckLTC will be backed 1:1 by Litecoin held entirely on-chain. This proposal outlines the functionality and implementation details of ckLTC within the ICP ecosystem.

Implementation Details:

The introduction of ckLTC will require the establishment of two main components:

2.1. ckLTC Minter:

The ckLTC minter will be responsible for the minting and burning of ckLTC tokens. It will operate similarly to the existing ckBTC minter. Users will transfer an equivalent amount of Litecoin to a specific Litecoin address under the ckLTC minter's control. The ckLTC minter will associate the minted ckLTC funds with the correct owner by leveraging the unique identifier of the Litecoin address. Additionally, ckLTC owners will be able to request the retrieval of their Litecoins to a chosen Litecoin address, resulting in the burning of ckLTC tokens. Detailed technical information regarding the ckLTC minter will be provided in its respective GitHub repository.

2.2. ckLTC Ledger:

The ckLTC ledger will process minting and burning requests from the ckLTC minter and maintain a record of ckLTC balances for each account with a positive balance. It will also handle ckLTC transactions, adhering to the ICRC-1 token standard. The technical implementation details of the ckLTC ledger will be available in the GitHub repository of the ICRC-1 ledger implementation, which will be extended to support ckLTC.

Integration into the ICP Ecosystem:

To integrate ckLTC into the ICP ecosystem, the following steps will be undertaken:

3.1. Protocol Extension:

The ICP protocol will be extended to support ckLTC by incorporating the necessary smart contract functionalities and modifications to accommodate ckLTC minter and ledger interactions.

3.2. Smart Contract Deployment:

The smart contracts for the ckLTC minter and ledger will be deployed on the Internet Computer, enabling users to interact with the ckLTC ecosystem seamlessly.

3.3. ICRC-1 Compliance:

The ckLTC token implementation will adhere to the ICRC-1 token standard, ensuring compatibility and interoperability with other ICRC-1 tokens within the ICP ecosystem.

Benefits and Impact:

4.1. Enhanced Token Diversity:

The addition of ckLTC will expand the range of supported tokens within the ICP ecosystem, allowing users to transact and interact with Litecoin-based assets directly on the Internet Computer.

4.2. Increased Liquidity Options:

By introducing ckLTC, users will have additional options to leverage their Litecoin holdings within the ICP ecosystem, facilitating more diverse and efficient trading and investment opportunities.

4.3. Ecosystem Growth:

The integration of ckLTC into the ICP ecosystem will attract Litecoin users and developers to leverage the benefits of the Internet Computer, fostering ecosystem growth and increasing the overall adoption of ICP-based applications and services.

Summary: Addition of ckLTC to the ICP Protocol

The proposal to add ckLTC (Chain-key Litecoin) to the Internet Computer Protocol (ICP) ecosystem has several benefits and is a good idea for the following reasons:

Token Diversity: Introducing ckLTC expands the range of supported tokens within the ICP ecosystem. This diversification allows users to transact and interact with Litecoin-based assets directly on the Internet Computer, providing more options for users and encouraging broader participation.

Enhanced Liquidity Options: The addition of ckLTC enables users to leverage their Litecoin holdings within the ICP ecosystem. By offering more liquidity options, users can efficiently trade, invest, and engage in various financial activities, increasing the attractiveness and utility of the ICP ecosystem.

Ecosystem Growth: Integrating ckLTC attracts Litecoin users and developers to the Internet Computer. By leveraging the benefits and capabilities of the ICP ecosystem, including smart contract functionality, scalability, and security, the proposal encourages ecosystem growth and fosters a vibrant community of developers and users.

Interoperability and Standards Compliance: ckLTC will adhere to the ICRC-1 token standard, ensuring compatibility and interoperability with other ICRC-1 tokens within the ICP ecosystem. This standardization promotes seamless integration and interaction between different tokens, enhancing the overall efficiency and usability of the ICP ecosystem.

User Convenience and Accessibility: By bringing Litecoin-based assets to the Internet Computer, ckLTC provides a convenient and accessible platform for users to manage their assets. Users can mint and burn ckLTC tokens, facilitating easy conversion between Litecoin and ckLTC, and participate in various activities within the ICP ecosystem without the need for external exchanges or intermediaries.

In conclusion, the addition of ckLTC to the ICP protocol brings greater token diversity, enhanced liquidity options, ecosystem growth, interoperability, and user convenience. By expanding the range of supported tokens and attracting Litecoin users and developers, the proposal contributes to the overall development and success of the Internet Computer ecosystem.

Conclusion:

The proposal suggests the addition of ckLTC as an ICRC-1-compliant token backed by Litecoin. Through the implementation of the ckLTC minter and ledger components, and the necessary extensions to the ICP protocol, users will have the ability to mint, burn, and transact with ckLTC tokens, further enriching the token offerings within the ICP ecosystem. This expansion will promote the growth and adoption of the Internet Computer and provide users with new opportunities to leverage their Litecoin assets.