LEP100 TOKEN STANDARD

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ABSTRACT

Thank you for your interest in the LEP100 token standard. This token standard is a set of rules that tokens on Lithosphere's project launchpad will follow. It's the same standard Lithosphere's native token LITHO follows as well. This yellow paper explains all it entails.

      This detailed information is absolutely constituted for information only, to present the LEP100 token standard.

DISCLAIMER

1   INTRODUCTION

1.1 MOTIVATION

Drawing inspiration from early token standards like ERC20, BEP20, & ERC-115, the Lithosphere blockchain introduces a new token standard, the LEP100 (Lithosphere Evolution Proposal 100) token standard made by KaJ Labs founder Joel Kasr.

The LEP100 is a novel standard for multi-tokens, allowing for a single contract to represent multiple fungibles and non-fungible tokens, along with batched operations for increased gas efficiency. Most importantly, LEP100 tokens can also exchange for other token equivalents.

1.2   What Is Lithosphere?

Lithosphere is the next-generation platform for cross-chain decentralized applications powered by AI & Deep Learning. https://lithosphere.network / https://litho.ai

Lithosphere is a blockchain platform with the ability to run smart contracts optimized for ultrafast trading with a much higher transaction throughput of more than 10,000 TPS.

Lithosphere is explicitly designed for interoperable, fast, and non-custodial (decentralized) blockchain trading. It came with a utility token called Litho / LITHO, with a fixed supply of 1 billion LITHO tokens.

Lithosphere was launched is a programmable smart contract blockchain platform. Lithosphere is fully compatible with Ethereum Virtual Machine (EVM), Binance Smart Chain (BSC) and other blockchains that support ECDSA. Developers can migrate their existing EVM or BSC-based applications directly to the Lithosphere platform.

Even though Lithosphere (Litho) runs parallel to other blockchain platforms, it shouldn't be categorized as a side-chain or a Layer-2 scalability solution. Litho is an independent and stand-alone blockchain that can keep running even if the other chains go offline.

Since Litho is multi-chain compatible, developers can steadily port their dApps, but investors can use their best-loved tools like Meta mask to interact with Lithosphere. This native compatibility will help Lithosphere take advantage of the rich blockchain ecosystem that exists today.

Lithosphere uses **Proof of Stake (PoS),** which helps it achieve ~3-second average block time, making it much faster than Ethereum. With PoS, validators secure the web by staking their LIT coins. Validators also receive transaction fees assembled from every block they validate.

Lithosphere has a multi-chain architecture with cross-chain compatibility to EVM, BSC, and other chains. Users can effortlessly and quickly transfer assets across various blockchains using a supported wallet, like Thanos Wallet, Meta mask or Trust Wallet.

Another cogent aspect of major assets such as BTC, ETH, and others is that they are already on Lithosphere as **Pegged Coins** (LITHO tokens pegged to external assets). You can effortlessly transfer these pegged coins to Lithosphere and use them in various DApps on the Litho platform. For example, you can transfer Ether from your wallet to buy NFT art on the Binance Smart Chain or any other blockchain using the Lithosphere pegged Ether - ETHL or BTC / BTCL.

1.3   What Is LEP100?

The LEP100 is a novel standard for multi-tokens, allowing for a single contract to represent multiple fungible(currency) and non-fungible tokens (NFT) and batched operations for increased gas efficiency proposed by **Joel Kasr**, creator of Lithosphere. Most importantly, LEP100 tokens can exchange for any other token equivalents. LEP100 tokens are fueled using Litho Coin (LITHO).

LEP100 is a Lithosphere token standard that extends Ethereum's ERC-20, BSC's BEP20, and ERC1155 standards. LEP100 defines a framework and a set of rules that Lithosphere-based tokens have to follow. LEP100 is fully compatible with ERC-20,

ERC-721, ERC-1155, and Binance Smart Chain's BEP-2, BEP-20 as well as other similar token standards.

The LEP100 token standard applies to all kinds of tokens that will launch on the Lithosphere platform, such as tokenized securities, stablecoins, or even NFT.

Pegged Coins, which are LEP100 tokens pegged to other crypto assets such as BTC and LINK, also follow the LEP100 token standard.

The transaction fees for all the LEP100 tokens are paid with LITHO, the native token of the Lithosphere network. This working principle is part of the PoS consensus rules. It provides an incentive to the validators as they amass transaction fees for the blocks, they validate on the Lithosphere network.

Since Lithosphere supports cross-chain interoperability with several existing chains like EVM, BSC, etc., LEP100 tokens can be used on EVM, BSC, or other blockchains for fast trading on LithoSwap DEX.

Creating your LEP100 token is relatively straightforward, even if you don't have any prior programming experience. The Litho Launchpad provides an intuitive user interface for creating your LEP100 tokens. You need to provide the name of your token, a symbol, and a few other parameters to successfully create your LEP100 token.

Let's summarily discuss these parameters for a better understanding of the LEP100 token standard.

o **Fungible & Non-Fungible**: Can represent both fungible assets, e.g., currency, or Non-fungible Assets like art, collectibles, music, etc.
o **Time Slicing**: LEP100 is a time-slicing token standard on the Litho blockchain. It's superior to ERC20 tokens in that it supports time slicing. Time slicing adds start time and end time attributes. Only the tokens whose current time is within the start time and end time are valid.
o **Cross-chain**: Can be exchanged with ERC20, ERC-721, ERC-1155, BEP2, BEP20, or any similar token equivalents allowing interoperability within networks.
o **Can Burn**: This parameter describes whether the LEP100 tokens can be burned to reduce the supply over time, making it deflationary.
o **Can Mint**: This parameter is anonymous to Can Burn, and it specifies whether new LEP100 tokens can be minted to expand the supply over time, making it inflationary.
o **Can Pause**: This parameter is important in case of a malicious attack or software vulnerability. It describes whether all the operations associated with your tokens can be paused when needed. Only the generator of a token or an address with necessary permission can pause all the operations.
o **Blacklist:** This parameter is analogous to Can Pause. It gives you the ability to blocklist specific addresses that are acting maliciously. These variables give a lot of control to the central authority (the producer), so they won't be suitable for many use cases.

Once all the parameters are described and the token is generated, you will have sole possession of the token, and it will be dispensed to your stated address. The smart contract for the coin will be impulsively published to Lithosphere, and you only need to pay the required transaction fees.

1.2.0   LEP100 vs. OTHER TOKENS

There are numerous programmable blockchain platforms with the capacity to run smart contracts, and each one has a different token standard. This section will compare LEP100 with two of the most prominent and leading token standards available today: ERC-20, ERC1155 and BEP-20.

1.2.1   LEP100 vs. ERC-20, ERC1155 & BEP-20

LEP100 and ERC-20 token standards have many similarities. LEP100 is an extended version of the ERC20 and ERC-1155 standard and has similar functions for providing foundational elements, such as token issuance, token transfer, and ownership.

Lithosphere has recently introduced a cross-chain bridging service called the **Litho Bridge**, which provides interoperability between different blockchains. The project currently supports cross chain transfers for BEP-20, ERC-20, ERC1155, and TRC-20 tokens.

With Litho Bridge, you can convert your native crypto assets to LEP100 tokens.

Let's discuss this with the following example: If you're transferring ERC-20 stablecoin to Lithosphere, Litho Bridge will do the cross-chain conversion, from the ERC-20 to LEP100 tokens, which can be used on either Lithosphere or DApps running on the Lithosphere network*.*

Litho Bridge charges no conversion fees at all, and you only have to pay the network fees of the blockchain associated with the transaction. You have to be patient for a while, waiting for conversion because it takes a few minutes.

This conversion process from the native blockchain (ERC-20, ERC1155, BEP-20) to LEP100 is called **Peg-in**. This conversion also works opposite (called **Peg-out**), i.e., converting back from LEP100 to the native blockchain (ERC-20, ERC1155, BEP-20). A compatible wallet such as Thanes wallet or Meta Mask is needed to complete the Peg-in and Peg-out process.

1.2.2   MAJOR LEP1000 TOKENS

The Lithosphere ecosystem is thriving, and the platform is getting high amounts of traction. This division will explain some of the most prominent and popular LEP100 tokens launched on the Litho platform.

1.2.2.1   Litho Pegged Tokens (Peg Coins)

Peg Coins are a class of Litho tokens on the Lithosphere platform pegged and fully backed by one ratio of one crypto asset. As of this writing, there are cumulatively 40 most popular pegged LEP100 tokens available on the Litho platform, including ETH, BTC, USDT, LTC, and XXR.

The end-user can either purchase these pegged tokens or interchange them with their existing tokens to use on the Lithosphere platform. Also, users can redeem these pegged tokens to the native crypto assets. Many Defi DApps are launching on the Lithosphere platform, and these pegged tokens permit users to interact with them and gain from their offerings.

Jot Art Token (Jot)

Jot Art is the Lithosphere counterpart of Ethereum's Enjin with added perks and features.

1.2.3 LITHO USD ALGORITHMIC Stablecoin (LUSD)

Litho USD coin (LUSD) is similar to algorithmic stablecoin protocols operating on the Ethereum blockchain. Still, unlike coins like U.S. Dollar Coin (USDC) and Tether (USDT), which are backed by audited holdings of U.S. dollars or crypto assets like PAX Gold (PAXG), Litho USD coin is not li to the U.S. dollar or any crypto collateral. Instead of using crypto, fiat, or commodities as collateral, the Lithosphere protocol adjusts its LUSD crypto supply every 24 hours in operation called "rebasing" to maintain a stable price.

1.2.4 LITHO NATIVE TOKEN (LITHO)

Litho coin (LITHO) is Lithosphere's native token. It fuels all LEP100 tokens.

1.2.5   HOW DO YOU GET LEP100 TOKENS?

Getting LEP100 tokens is as easy as obtaining any other token. Below are four different ways you can get hold of some LEP100 tokens:

- ✞ **LITHOSWAP DEX AND LAUNCHPAD:** Litho DEX is a decentralized crypto exchange. You can use LithoSwap DEX to discover and buy promising LEP100 tokens in a noncustodial (decentralized) environment.
- ✞ **THANOS WALLET**: You can discover and purchase LEP100 tokens right from your Thanos Wallet interface, which is super convenient.
- ✞ **PANCAKESWAP, UNISWAP**: You can also use an AMM-based decentralized exchange to accumulate LEP100 tokens by interchanging your existing crypto assets supported on PancakeSwap.

1.3 HOW DO YOU STORE LEP100 TOKENS?

Storing your LEP100 tokens is as simple as it can be. All you need is a wallet that allows LEP100 tokens. Below are three different ways you can store your LEP100 tokens:

- ✞ **METAMASK**: Even though Meta mask is a famous Ethereum wallet, you can connect Meta mask with Lithosphere and store your LEP100 tokens.
- ✞ **THANOS WALLET**; Thanos Wallet is a decentralized multi-currency wallet. You can send, receive, store, swap, stake, borrow, lend and purchase LEP100 tokens without even leaving the app's interface. The Thanos Wallet has iPhone, Android apps as well as browser extensions available on Chrome and Firefox. It is super simple and direct to use and helps you store LEP100 tokens and interact with DApps on the Lithosphere platform.

✝ **TRUST WALLET**; Trust wallet is a decentralized multi-currency wallet. Using Trust Wallet, you can send, receive, store, swap, and purchase LEP100 tokens without even leaving the app's interface.

1.3.1 LEP100 TOKENS ARE FUELED USING LITHO COIN (LITHO)

This means it allows even more integrability within the Lithosphere network and other native blockchain networks like Ethereum or Cosmos since contracts can now exchange tokens that support various already available standards.

Lithosphere's native digital asset, Litho (LITHO), plays a role similar to Ethereum gas. Specifically, users can pay for fees or transfers of LEP100 tokens with $LITHO.

1.3.2 FUNCTIONS OF THE LEP100 TOKEN STANDARD

LEP100 tokens can be exchanged with ERC20, ERC-721, ERC-1155, BEP2, BEP20, or any similar token equivalents allowing interoperability within networks.

LEP100 standard Supports Instant, secure, and low gas on-chain transactions

LEP100 token developers can define and configure both fungible and non-fungible tokens in a single smart contract, allowing many applications such as money transfers, staking, gaming, collectibles, voting, etc.

✦ **SAVE GAS:** Cut gas fees by up to 90% when minting new tokens.
✦ **ADVANCED FEATURES:** LEP100 token standard enables owners to use, trade, destroy, upgrade, combine, rent, loan, and lose their NFTs.
✦ **ATOMIC SWAPS:** Atomic swaps of any number of tokens in just two simple steps.
✦ **BATCH TRANSFERS:** Send multiple tokens in a single transaction.
✦ **ADOPTION**: LEP100 is inspired by ERC20, ERC-721, ERC-1155, BEP2, and BEP20, which are already used in several projects in the blockchain ecosystem.

✝ LEP100 tokens are fueled by the Litho($LITHO) coin. The $LITHO coin is the native token on the Lithosphere network.

1.3.3 LITHOSPHERE OFFERS

All Lithosphere tokens are compliant with LEP100 standards. The Lithosphere network is a multichain architecture that allows all users to create dApps and other digital assets on the blockchain. It also guarantees cross-chain, low gas, fast trading with secure transactions.

LEP100 enables tokens on the Lithosphere blockchain to work accurately. Therefore, all users benefit by enjoying low transaction fees with a massive ecosystem.

Also, the cross-chain Defi mechanism increases all small contracts interoperability regardless of the nature of the blockchain network. The Lithosphere ecosystem is very supportive. The **KaJ Labs Foundation** funds all bootstraps with various Defi projects through the **Litho Launchpad**.

1.3.4 Why Use LEP100 Token Standard For your Defi Project vs. ERC20 / BEP20.

● LEP100 tokens represent various things, including shares, fiat currencies, and any other crypto asset.

● It is easy to pin other tokens from different blockchains on the LEP100 token. Therefore, it allows developers to generate various versions of the crypto assets with the same tokens, e.g., BTC becomes BTCL when pegged with LEP100.

LEP100 TOKEN STANDARD

● $LITHO is provided as a bonus for all validators who transfer LEP100 tokens. The bonus is collected as a transaction fee.

● The LEP100 standard offers low gas fees for all transactions compared to other token standards like ERC20.

● LEP100 token standard was invented by Joel Kasr, creator of Lithosphere, so it's native to the Lithosphere network. The Lithosphere network has the highest transaction speeds of more than 10,000 TPS.

● It is not strenuous to integrate Defi projects with the LEP100 tokens. Also, it can be listed for free on a DEX like PancakeSwap, Uniswap, Dextool, etc.

1.3.5   FEATURES OF LEP100 TOKENS

The LEP100 token has various impressive features that include:

● **Fast transaction**: the LEP100 token supports high-speed transaction speeds, which makes it highly scalable.

● **Time slicing:** Time slicing adds start time and ends time attributes. Only the tokens whose current time is within the start time and end time are valid.

● **Low transaction fees**: Users will not have to pay high gas fees like in Ethereum Networks

● **Cross Chain compatibility**: the LEP100 tokens are compatible with ERC20, ERC-721, ERC-1155, BEP2, and BEP20 supporting networks/blockchains.

● Compatible with almost every major crypto wallet available today.

1.3.6   Crypto Wallets and LEP100 Addresses

Most wallets like Trust Wallet support LEP100 tokens. Once you generate a new wallet, you will have automatically enabled features of the Lithosphere network. If it fails to display, you can search for the Litho network in the search option.

Step 1: Open the wallet.

Step 2: Tap the Receive button to get the LEP100 address.

Step 3: Hit the copy button on the screen to share the QR code for the address that Lithosphere provided.

Keep in touch with the core development team for more information on the public sale and more announcements. You can also find more details on diverse social media platforms.

What Are LEP100 Tokens and LEP100 Standard?

Token monotony in crypto has helped to build a foundation for the whole digital ledger technology as we know it.

Smart contracts like Ethereum and Binance Smart Chain (BSC) allow you to build and launch your decentralized application (DApps). Each dApp comes with a quantity of value, and a tradable asset called a "token," used to provide a value or perform certain social; and governance-related activities.

These tokens tread the hills of the specific framework called a **TOKEN STANDARD**, a set of rules and guidelines incorporated into the smart contracts. If a token doesn't yield and comply with the desired token standard, it won't be compatible and won't interact with the ecosystem applications, such as wallets and exchanges.

Every blockchain platform has its category of token standards that smart contracts have to adhere to. You might be well accustomed to ERC-20 tokens; these are the Ethereum-based tokens that the ERC-20 token standard acts. Likewise, Binance Smart Chain (BSC) comes with a token standard called BEP-20, which has to be followed by every BEP-20 token released on the Binance Smart Chain space.

The Lithosphere network introduces a new token standard - LEP100 inspired by previous ERC20, ERC1155, BEP20, etc.

9.1.1   CONCLUSION

With the ability to represent both fungible and non-fungible assets, cross-chain support, low fees, and high transaction throughput, LEP100 tokens provide a much better alternative to Ethereum's ERC-20 ERC1155 counterpart.

Seamless swapping between LEP100 and ERC-20 / ERC1155, BEP-20, BEP2, and LEP100 versions of the pegged assets, LEP100 tokens can be a game-changers entire ecosystem.

GLOSSARY

- **LITHO:** Lithosphere's native token.

- **LEP100:** Lithosphere Evolution Proposal 💯

- **WHITE PAPER:** A guide about a specific topic and the problem that surround it. It is meant to educate readers and help them to understand and solve an issue.

- **BLOCKCHAIN:** It is a specific type of database. It differs from a typical in the way it stores information.
- **TOKEN:** A token represent a set of rules encoded in a set of smart contracts. Each token belongs to a blockchain address. It is essentially a digital asset that is stored securely on the blockchain.
- **DECENTRALIZED:** They are type of cryptocurrency exchange which allows for direct peer-to-peer cryptocurrency transactions to take place online securely and without the need for an intermediary.
- **EVM:** Ethereum virtual machine is a computation engine which acts like a decentralized computer that has millions of executable projects.
- **BSC:** Binance smart chain
- **PEGGED COINS:** LEP100 tokens pegged to external assets.
- **DAPPS:** Decentralized Applications are digital applications that run on a blockchain or peer-to-peer network of computers instead of a single computer.
- **NFT:** A non-fungible token is a unit of data stored on a digital ledger, called blockchain, that certifies a digital asset and therefore not interchangeable
- **INTEROPERABILITY**: The ability of computer systems or software to exchange and make use of information.
- **ERC:** Ethereum request for comments
- **BURN:** A process by which digital currency miners and developers can remove tokens or coins from circulation.
- **TRACTION:** Drawing or pulling rate in a business.
- **DEFI:** Decentralized finance
- **CROSS CHAIN:** It is the interoperability between two relatively independent blockchains.
- **DEX:** Decentralized exchange