



## LITEPAPER

### Introduction

The eFIN DEX APP is a decentralized blockchain app that works for MAC OS and Windows 10. The main features are: a decentralized, multi-protocols "Wallet", "Trade" for BEP20 tokens, "Bridge" for currency exchanges between protocols and "Buy Crypto" which allows BTC purchases through bank transfers.

### Wallet

**The eFIN DEX wallet uses the BIP44 Multi-account hierarchy standard for deterministic wallets. The proposed hierarchy is quite comprehensive. It allows the handling of multiple coins, multiple accounts, external and internal chains per account and millions of addresses per chain.**

The wallet supports multiple protocols such as:

#### eFIN

Every eFIN DEX APP runs a full node which contains the logic to fully validate transactions and blocks. By running an eFIN full node, you are supporting the eFIN network to become more decentralized while fostering the growth of eFIN. All operations are performed in the local daemon that distributes the transactions to the netrevelation of Fátimawork.

#### Bitcoin, Litecoin, Ethereum, Zilliqa, BNB Chain & Polygon

These use a lightweight wallet which works by using a connection to a series of servers that allows them to obtain all the information they need about the cryptocurrency payments they make. It is a simplified form of a wallet that makes running a full node unnecessary while maintaining a good balance between security and usability.



## **Import tokens**

For Ethereum, Polygon and BNB Chain, it allows importing tokens from the ERC20 and BEP20 standards respectively.

## **Portfolio Analytics**

Portfolio Analytics provides a greater perspective of the funds by connecting to the Coin Market Cap data and keeping updated prices in USD and EUR. These are stored in a database on the eFIN servers which are used to display daily, weekly and monthly averages.

## **Trade**

**This is a set of functions that allows exchanges between BEP20 tokens, and participates in creating, adding and removing pools, and supports a wallet to manage Liquidity Pool (LP) tokens.**

## **Swap**

eFIN Token Swap is a simple and intuitive way to securely trade BEP20 tokens on BNB Chain network. The eFIN Swap uses an eFIN V2 contract which is a binary smart contract system.

## **Core**

Core contracts provide fundamental safety guarantees for all parties interacting with the eFIN Swap.

## **Factory**

The factory holds the generic bytecode responsible for power pairs. Its primary job is to create only one smart contract per unique token pair.

## **Pairs**

Pairs have two primary purposes— i.e., to serve as automated market makers and to keep track of pool token balances. They also expose data that can be used to build decentralized price oracles.

## Periphery

Periphery contracts interact with one or more core contracts but are not themselves part of the core.

## Router

The router which uses the library fully supports all the basic requirements of a front-end, offering trading and liquidity management functionality. Notably, it natively supports multi-pair trades (e.g. x to y to z) and offers meta-transactions for removing liquidity.

## My Liquidity Pool (LP)

This is a list showing the details of participation in a liquidity pool such as the number of LP tokens, pool share and the equivalence of the two pooled tokens while also allowing for management of the different liquidity funds.

## Add Liquidity Pool (LP)

This feature shows the options to create or add liquidity to the different pools. The Liquidity Pool (LP) wallet allows you to send and receive Liquidity Pool (LP) tokens. Its functionality is the same as a BNB Chain wallet for tokens since the LP tokens behave like a BEP20 token.

## Bridge

**A blockchain bridge is a tool that lets you port assets from one blockchain to another, solving one of the main problems within blockchains, which is the lack of interoperability.**

## eFIN to WeFIN

The eFIN DEX APP provides the UI to request a bridge through the API to perform validations and verify the available funds. This call goes to a service that sends it to the destination address through the use of a hot wallet.



## **BTC to renBTC (BEP20)**

The eFIN DEX APP provides the UI to request a bridge through the renBridge mechanism. Using RenVM (a universal translator), it converts digital assets to the format needed by its destination chain. The supported bridge is from BTC to BNB Chain. For example, RenVM takes BTC, holds it and then converts it to BEP20 with a 1:1 ratio to ensure your renBTC is always backed by the same amount of BTC.

## **Buy Crypto**

**The eFIN DEX APP presents the UI for BTC purchase integration by paying with fiat (EUR) using the SuperSimpleSwap API.**

SuperSimpleSwap is the infrastructure and liquidity provider for super-secure and non-custodial currency swaps. Empowered by Nimiq OASIS, you can swap BTC-EUR.

### **Steps:**

1. SuperSimpleSwap makes a quote for user demand. The price is determined from live market data across various exchanges.
2. SuperSimpleSwap sends BTC to an automated escrow. The automated escrow (HTLC) ensures that only the user can retrieve the BTC once he receives access to a secret. The BTC is returned after a predetermined time if the secret is not provided.
3. The user transacts EUR to the automated escrow (Powered by Oasis). The escrow for EUR is the regulated Nimiq OASIS service provided by TEN31 Bank and can be publicly verified. Nimiq OASIS ensures that EUR is only transferred to SuperSimpleSwap if the secret of the BTC HTLC is provided, otherwise it is sent back to the user after a predetermined time.
4. SuperSimpleSwap reveals the secret (Powered by Oasis). By publishing the secret and thereby providing it to Nimiq OASIS, SuperSimpleSwap retrieves the EUR from the automated escrow.
5. The user's wallet retrieves the BTC. By using the secret published by SuperSimpleSwap, the user's wallet can retrieve the BTC from the escrow (HTLC).
6. The swap is completed. The user receives his BTC at the previously agreed rate without having to give custody of his funds to SuperSimpleSwap

## Social Media



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