STONKS

WHITEPAPER

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1. Privacy & Profits

Making money in the cryptocurrency market (actually in any financial) is based on predicting the future, and the Stonks platform is designed to facilitate this. The main goal is to create a decentralized and anonymous exchange where trading will take place similar to the classic CeFi.

In addition to the solutions known from popular DeFi (1Inch, DEXTools, poocoin) we will implement completely new in the world of crypto derivatives (crypto options). This will be followed by the implementation of a full, decentralised and anonymous prediction market where you can also bet on the outcome of real world events.

It is also important not to be limited to a single blockchain therefore the stonks platform will allow investing on as many blockchains as possible without being in opposition to existing DeFi protocols, but rather integrating those useful for the idea into one platform.

We assume that anonymity is a guarantee of the freedom of investing, therefore to use the market it is enough to connect to the application using one of the available wallet providers such as metamask.

We are convinced that freedom of speculation can only be realised under conditions of full trust and transparency, therefore all the key components of our application are decentralised and work on-chain.
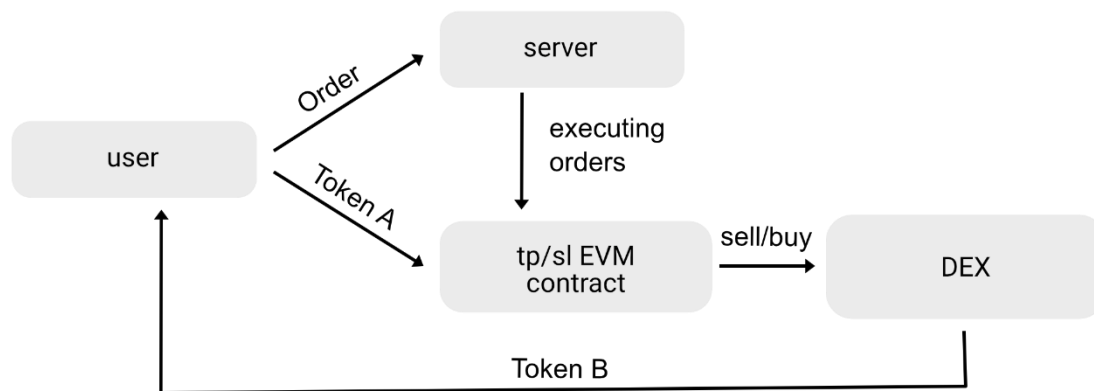
2. User web app

The user app will offer features known from the largest centralised exchanges. Live candlestick chart, limit orders, portfolio overview, trades list and more. The application will be compatible with various blockchains and various AMM protocols: initially ETH, BSC, pancakeswap and uniswap. From app level the user will have access to stonks pool options and DAO functionality. The application will also allow access to analytical tools such as wallet scanner, portfolio analysis tool and other features known form such platform as dextools.
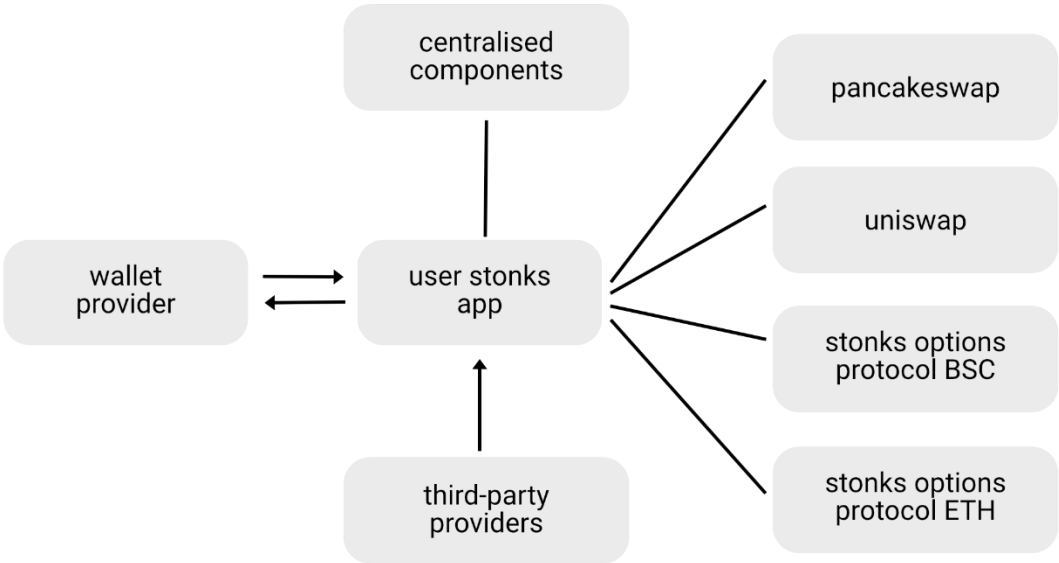
Stonks platform model

3. Limit orders

A limit order is used to swap crypto at a pre-determined ratio and will not execute unless the ratio meets those qualifications. By using a buy limit order, the investor is guaranteed to pay that price in swapped crypto or less. While the price is guaranteed, the filling of the order is not, and limit orders will not be executed unless the crypto price meets the order qualifications. Technically, the user sends cryptocurrency to the address of the limit order contract. Until the order is executed, the user can withdraw the deposited cryptocurrency by cancelling the order. The execution of the order is triggered by an algorithm running on the server which continuously monitors the exchange price of a given cryptocurrency through a query to the DEX protocol.

4. Options

4.1. Introduction

Options provide a whole new way to make money on cryptocurrencies - on dips, rises and even when the market is in a period of low volatility. There are two types of options - call and put options.

A call option represents the right to buy a cryptocurrency at the strike price on the option expiry date. The buyer of the call option assumes that the price of the asset will rise.

A put option is the opposite of a call option - it represents the right to sell the cryptocurrency at the strike price on the expiry date. So the buyer in this scenario assumes that the price of the underlying cryptocurrency will fall.

There are two parties trading options - the buyer and the seller.

The seller creates a call options contract or a put options contract with the options contract factory. The option contract has a strike price and an exercise date. The buyer pays the seller a price (premium), which is the seller's profit. The premium is determined according to the model described below.

4.2. Option pools

The option pool performs a similar role to that filled by liqudity pools in DEX - it provides liquidity for options trading. Liquidity providers (sellers) provide the cryptocurrencies that will be used as liquidity for users wishing to purchase call or put options. In return for providing liquidity, they receive a profit from the premiums paid by option buyers. In the event of losses incurred by the pool

as a result of the total profit of the option buyers being greater than the premium income, the liquidity providers are protected by reserve pool accumulated from a portion of the profit from the stonks application.

4.3. Option pricing

Option pricing is done in a non custodial and automated manner based on three components: 1. a mathematical Black-Scholes model using six variables such as volatility, type of option, underlying stock price, time, strike price, and risk-free rate. 2. a third-party provider used to determine the price of an asset such as oracles or a DEX. 3. An implied volatility indicator based on the percentage of utilisation of the liquidity pool of an option multiplied by the risk factor associated with the crypto asset.

$$C = S_t N(d_1) - Ke^{-rt} N(d_2)$$

where:

$$d_1 = \frac{ln\frac{S_t}{K} + (r + \frac{\sigma_v^2}{2})\, t}{\sigma_s\, \sqrt{t}}$$

and

$$d_2 = d_1 - \sigma_s\, \sqrt{t}$$

where:

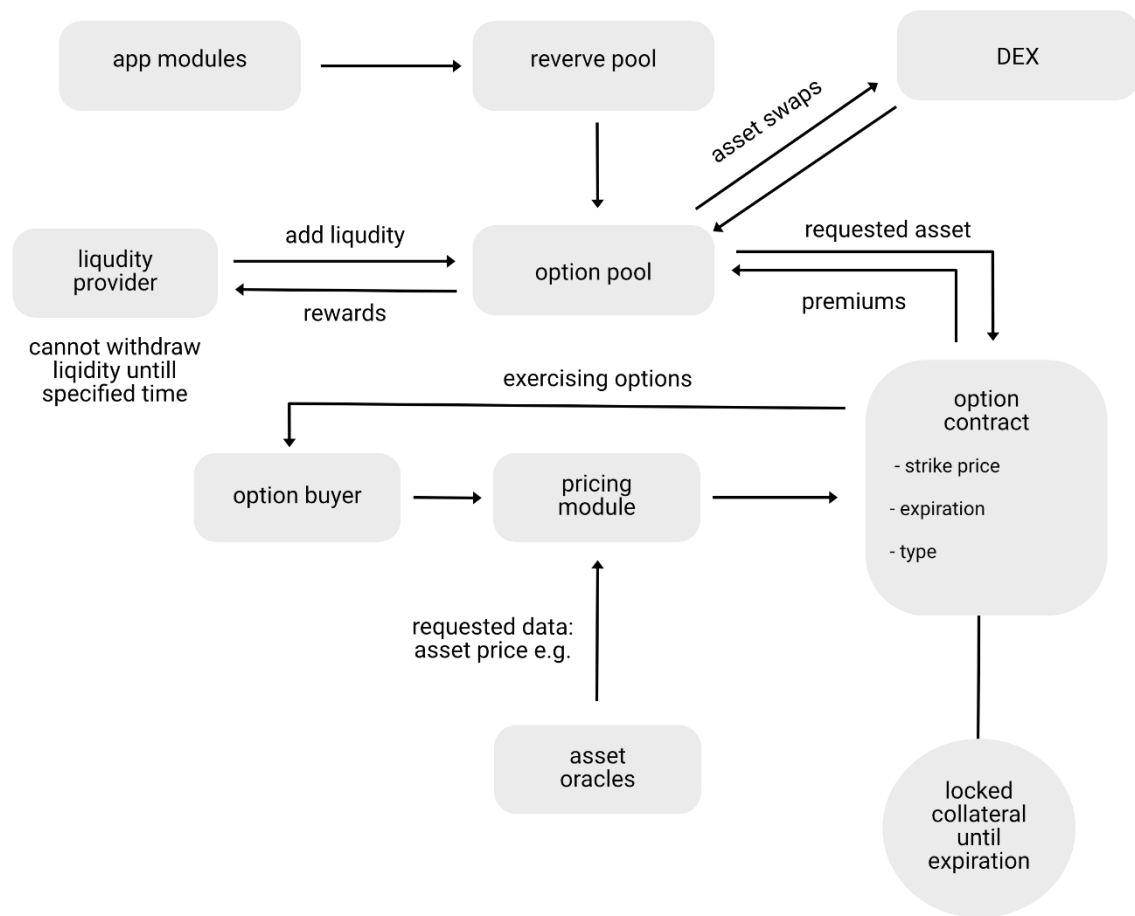$C = $ Call option price

$S = $ Current stock (or other underlying) price

$K = $ Strike price

$r = $ Risk-free interest rate

$t = $ Time to maturity

$N = $ A normal distribution

options model

5. Centralised components

Certain components such as the limit order execution mechanism or the aggregation of blockchain data used to display charts are expensive to maintain on-chain, which is why we temporarily use centralized servers. The current development of projects like Chainlink (oracles) and The Graph (indexing blockchains) gives hope for decentralising these components in the future.

6. Token

Token stonks runs on a smart contract running on the Ethereum Virtual Machine (EVM). The token will function on all EVM compatible blockchains. Changing the chain will be done via a simple bridge at a ratio of 1:1. The value of individual tokens will be determined by arbitrage.

6.1. ERC-20 & BEP-20

The token implements functionality known from RFI (Frictionless Yield Generation) tokens such as Safemoon. Tokenomics is based on several popular assumptions.

- Depreciating Supply
- Token Reflections
- Automated Liquidity Acquisition

In other words, with each transaction in a particular token market, the number of tokens in circulation decreases leading to an increase in the value of the token. Owning a token allows you to passively generate rewards. And the pool of liquidity is continually replenished through the *"_swapAndLiquify"* method popular in these types of smart contracts, causing market volatility to decrease. You can learn more about how RFI tokens work from the whitepaper of a popular rep: safemoon, see. *https://safemoon.com/whitepaper.pdf*.

Total supply: 100,000,000,000,000 STONKS

10% of total supply is allocated to reserve (CeFi listing etc.)

4% of all transactions is distributed to STONK's holders

3% transaction fee is allocated to marketing

3% transactions is added to a liquidity pool to generate an ever-rising price floor

6.2. Utility

The stonks token (regardless of the blockchain it runs on) serves two primary functions. In addition to passive profit from reflection, it allows for "active" earning by staking tokens in the stonks platform. Profits are paid out in the stablecoin of your choice and are generated from the profits of the stonks platform which consist of: 1. profits from tools on the platform - such as limit orders, surplus earned from the options liquidity pool, profits from the liquidity pool from the prediction market (in the future).

It allows you to participate in decisions about the direction of the platform. Stonks is a community project in which everyone can participate by contributing to the project. The project code is made available on an open-source basis. As the number of stonks token holders increases, a tool will be made available to vote on proposed solutions based on the stonks tokens held.

6.3. Migration from token v1

First version of the token was created spontaneously, but during the development phase of the application it became apparent that renoucement of ownership of the contract was significantly hindering development work. Nevertheless, early investors were not left alone. A special migration

bridge made it possible to exchange v1 tokens for the current stonks token. Currently, token exchange is no longer possible. At the time of completion of the migration, former v1 token holders held about 42% of the supply of the current v2 token.