MaxDex Blockchain Decentralized Exchange Whitepaper

Version:　V3.0

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1.Project overview

1.1 Project Introduction

This project is a decentralized exchange on the blockchain, where anyone can buy and sell various cryptocurrencies, or pledge cryptocurrencies for liquidity mining to earn stable risk-free income.

The main purpose of this exchange is to solve several major problems of decentralized exchanges such as Uniswap:

(1) The problem of impermanent loss. Users who pledge liquidity mining on exchanges such as Uniswap will face impermanent losses and lead to losses. And in this exchange to pledge, because the exchange uses a new pledge method, so there is no problem of impermanent loss, users will not cause any economic loss, only stable income without any risk of loss.

(2) Yield mining requires staking two types of tokens at the same time. When users conduct liquidity mining on exchanges such as Uniswap, they need to stake two tokens at the same time, and the number of two tokens also needs to maintain a fixed ratio, which increases the user's liquidity mining cost. The exchange only needs to stake one token, or it can also stake two tokens, and the number of two tokens does not need to maintain a fixed ratio to conduct liquidity mining.

(3) The problem of a large number of malicious tokens. Since Uniswap's tokens go live without any review mechanism, there are many problematic tokens, and users can suffer irreparable losses by trading these tokens. The tokens of this exchange need to be reviewed by community voting before they can be traded online, which can avoid many problematic tokens from going online, so that users can avoid losses.

As a blockchain decentralized cryptocurrency exchange, MaxDex differs from other exchanges in that it has a new way of trading. On traditional exchanges such as Uniswap/Sushiswap, trading takes place in currency pairs such as ETH-USDT/BTC-USDT, and each pair is independent of each other. But in MaxDex there are no trading pairs, all USDT/USDC are combined into a pool, each cryptocurrency is traded with the pool, and cryptocurrencies can also be traded with each other through the pool. For example, both ETH and BTC can be traded with pools, and ETH can also be traded with BTC through pools.

1.2 Basic concepts

To help readers better understand the content of this white paper, the following basic concepts have been defined.

Basic token: The basic token is USDZ token, USDZ is a stable token issued by the exchange itself, its price is always equivalent to one US dollar, and the mainstream stablecoin UST/USDC/DAI are exchanged for each other in a ratio of about 1:1.

Trading tokens: With the exception of USDZ, all cryptocurrencies that are traded are trading tokens.

1.3 USDZ as the base token

The stablecoin tokens of the blockchain include USDT/USDC/DAI, etc., but these tokens have some potential risks of their own, and may change sharply in price at some point due to certain problems. In order to prevent this possible risk in the future, the platform decided to use USDZ, a stablecoin designed and issued by itself, as the base token. The platform will automatically obtain the latest price of these mainstream stablecoins, and if the price of a mainstream stablecoin changes, the exchange rate with USDZ will also change in time, so that USDZ can always remain stable at a price level of about $1.

2. Trade method

2.1 How to trade tokens online

The trading tokens of this exchange need to apply for listing first, and the process is:

(1) Anyone can submit an application for trading tokens to be traded online, only need to submit a certain number of trading tokens, and set the initial price of trading tokens.

(2) After submitting the application, wait for the community members to vote whether or not to approve within the specified time.

(3) After the specified time has elapsed, if the vote is approved, the online application is successful.

2.2 How trading tokens are priced

When a trading token goes live, its target price is set by the person submitting the application, and the author can modify it until the first transaction is closed, until the price at the time of the first transaction is the initial price of the listing, after which the author cannot modify it, and the price thereafter is determined by the algorithm of the transaction price.

For example, when submitting an online application for "ETH" tokens, suppose the target price set by the author is 1ETH = 2000USDZ, and after the successful listing application, if there is no transaction, the author can continue to modify the target price until the first transaction is completed, the price of the transaction is the initial price, and then the price will automatically change as the user buys and sells.

The calculation formula for the automatic change of the price as the user buys and sells is as follows:

K = 10 is the coefficient of price change set in the system, which is an invariant constant.

After each transaction, the price of the traded tokens is automatically updated to the new transaction price.

Suppose the last transaction price is P1, the new transaction price is P2, the commission is F%, X is the number of traded tokens.

(1)Assuming that the user pays the amount of ΔY in the base token, ΔX is the number of transaction tokens it can receive.

The new transaction price is calculated by:
$$P2 = P1 \cdot (1 + ((\Delta Y / P1)) / ((X \cdot K)))$$

ΔX is calculated as:
$$\Delta X = \Delta Y \cdot (1-F) / P2$$

(2)Suppose a user sells a ΔX amount of trading tokens and receives the amount of USDZ ΔY.

The new transaction price is calculated by:
$$P2 = P1 \cdot (1 - \Delta X / (X \cdot K))$$

ΔY is calculated as:
$$\Delta Y = \Delta X \cdot (1-F) \cdot P2$$

2.3 How two trading tokens are traded

The exchange can also trade between trading tokens and trading tokens, and the system will automatically find two trading tokens, and conduct two transactions with USDZ respectively, and finally complete the exchange between trading tokens. In this case, the system will charge two fees, once per transaction.

2.4 Trade fee

The exchange will automatically charge a fee when the user trades, the commission is 0.2% of the transaction amount, charged to the buyer when buying, charged to the seller when selling, the handling fee is charged by deducting USDZ, so the handling fee is all composed of USDZ tokens.

80% of the commission is distributed to liquidity providers, and the other 20% of the fee is automatically deposited into the exchange's vault as the exchange's income, and the ownership of the vault belongs to the holders of the platform token MXDX.

2.5 How trading tokens go offline

The offline process of trading tokens on the Exchange is:

(1) Anyone can submit an application for the downline of trading tokens.

(2) After submitting the application for trading tokens offline, wait for community members to vote within the specified time.

(3) After the end of the specified time, if the vote is approved, the downline application is successful, otherwise the downline application fails.

3. Liquidity mining

3.1 Add liquidity

After the trading token is launched, anyone can add liquidity to the trading token, and after adding liquidity to the trading token, the user can share the fee income of the trading token, that is, liquidity mining.

Adding liquidity only requires adding trading tokens, not adding base tokens. The system automatically records the amount of liquidity added by the user.

In addition to the fee income, you can also get an automatic distribution of the official token MXDX, which is distributed according to the amount of liquidity added and the length of time staked until it is allocated.

3.2 Remove liquidity

After adding liquidity to trading tokens, users can remove some or all of the liquidity at any time. How many tokens the user adds when adding liquidity, and the same number of tokens can be removed when removing liquidity, in this way, the problem of impermanent loss is avoided. If the number of trading tokens is insufficient at the time of removal, the system will automatically compensate the user with the equivalent amount of USDZ tokens at the current price.

After the user removes the liquidity in the trading token, the income from the commission corresponding to the liquidity and the MXDX tokens allocated will be issued to the user at the same time.

4. Official platform token

The platform will issue its own official token MXDX, its total supply is 1 billion, users who own this platform token are community members, community members have the right to vote on community affairs, the number of MXDX tokens they own is their voting weight, and community members also have the ownership of the exchange vault.

This platform token not only has the right to manage, but also has actual economic value. The transaction fees and other income of the platform will be automatically deposited into the platform's vault, and the person who owns the platform tokens has the ownership of this vault, and the proportion of the number of MXDX tokens he owns to the total number is the size of the rights he has. With the growth of time, the platform revenue will be more and more and there is no upper limit, so the economic value of the platform token will also increase with time, and there is no upper limit, so it can be seen that the potential economic value of the platform token is very large, and its price will increase with time in the future will have no upper limit.

All community affairs are voted by community members, such as setting the amount of transaction fees, token voting online, token voting offline, and so on.

The distribution scheme of the platform token MXDX is as follows:

Public Presale: 20%

Pre-sale of tokens to investors in the open market at a low price to raise the necessary funds for the development and development of the project. If the pre-sale is not fully sold out by the closing date, the remaining tokens are automatically classified as a share of yield mining.

Development Team Reward: 20%

By awarding tokens to development team members as a reasonable reward for their long-term hard work, team members will work more efficiently and enthusiastically.

Liquidity Mining: 60%

Anyone can provide liquidity for the trade pairs of this exchange. In addition to obtaining trade fee income, they can also get the platform token MXDX as a reward for liquidity mining, so providing liquidity for trade pairs will get very rich rewards.

5. Members of the community

Whoever owns MXDX tokens is a community member, and community members not only own the exchange's vault, but also have voting rights in community affairs.

6. Presale of platform token

The project plans to pre-sell 20% of the platform token MXDX to early investors before the official release of the exchange, and the funds raised will be mainly used for project development and other purposes.

The pre-sale is divided into 10 phases, each where a certain number of platform tokens are sold at different prices. Once the number of tokens in each stage is sold, it automatically moves on to the next stage until the end of the pre-sale.

The list of the number of tokens sold at each stage of the pre-sale and the price of individual tokens is as follows:

Stage 1	
Amount:	15,000,000
Price:	0.01USDT

Stage 2	
Amount:	15,000,000
Price:	0.02USDT

Stage 3	
Amount:	20,000,000
Price:	0.04USDT

Stage 4	
Amount:	20,000,000
Price:	0.08USDT

Stage 5	
Amount:	20,000,000
Price:	0.20USDT

Stage 6	
Amount:	20,000,000
Price:	0.30USDT

Stage 7	
Amount:	20,000,000
Price:	0.40USDT

Stage 8	
Amount:	20,000,000
Price:	0.50USDT

Stage 9	
Amount:	25,000,000
Price:	0.60USDT

Stage 10	
Amount:	25,000,000
Price:	0.80USDT

7. Project roadmap

The roadmap of the project plan is as follows:

August 2023

Design the concept of the exchange
Project initial and start

September 2023

Website build
Whitepaper publish
Presale smart contract publish

October 2023

Smart contracts development
Website of the exchange build
Social media promotion

November 2023

Maxdex exhange publish at test network
Website of the exchange publish
Pre-sale stopped and start claim

December 2023

Exhange publish at ethereum network
Social media promotion
Maintain and upgrade

8. Team introduction

The project was created by an experienced sponsor with more than 10 years of blockchain related experience and development work as a lead engineer.

9. Legal notices

This whitepaper is only an explanation of this blockchain project, concepts and technical solutions, and does not constitute any financial investment advice or recommendation. Readers who read this whitepaper are deemed to have full capacity for civil conduct, as well as sufficient blockchain knowledge and cognitive ability, as well as sufficient legal and financial risk tolerance ability, and voluntarily fully assume their possible risks and consequences.

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