

GhostDex Whitepaper
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By GhostDex
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1. Problem statement

Decentralized Finance (Defi) is a rapidly growing sector of the blockchain ecosystem and brings a lot of benefits to users in the market. Currently, decentralized applications (dApps) are mostly still deployed on Ethereum.

Polkadot is a blockchain protocol with a strong development team, and has many advantages over Ethereum in terms of processing speed and scalability.

How can a user work on the Ethereum blockchain and interact with the Polkadot network in a single dApp?

This is what GhostDex was born for.

GhostDex is a decentralized application platform. One of GhostDex's most important products is GhostDex - a decentralized exchange that allows users to swap tokens on Polkadot to tokens on other blockchains without the need for any centralized organization. In addition, by using the smart farming mechanism, liquidity providers can earn high-yield rewards.

2. Products

GhostDex

Cross-chain swap

GhostDex provides swap functionality from Polkadot to other blockchains, such as Ethereum and Binance Smart Chain, without the need for intermediaries.

GhostDex uses Moonbeam's parachain solution, allowing Ethereum compatible smart contracts to run on Polkadot. In practice, GhostDex will use two smart contracts running in parallel to swap: one on Polkadot, the other on the corresponding blockchain.

Below is an example for swapping from ETH (on Ethereum) to DOT (on Polkadot):

- On the GhostDex UI, users will find one pool called 'ETH-DOT pool'. This pool includes two pools: one containing ETH on ERC20, and the other containing DOT. Users will swap tokens through the liquidity of these pools. Liquidity providers will be able to claim rewards when users swap: provide more liquidity, get more rewards. See how to calculate rewards in the Farming section.
- The user's ETH will be transferred to the ETH portion of ETH-DOT pool. Here, data on the existing tokens in the pool will be used to calculate the conversion rate to DOT. After calculating the amount of DOT, the Moonbeam smart contract will return it to the user's wallet. The swap process is completed.
- Users will be allowed to choose a slippage rate from the dApp UI for the swap. The higher the slippage, the higher the risk.

Assume that the current ETH price is \$1000, and the DOT price is \$10. In the pool there will be ETH and DOT at the ratio of 1 ETH: 100 DOT. In this example, the pool would have 100 ETH and 10,000 DOT. When the user wants to swap *x* ETH to DOT, the number of DOT received will be calculated according to the following formula:

$$LP DOT - \frac{LP ETH \cdot LP DOT}{x + LP ETH}$$

In this case, this user would receive 99.00990099 DOT for every 1 ETH, where the slippage is 2.01%.

Deflationary Farming

Liquidity providers will be able to earn rewards, even while they're sleeping. All rewards will be paid in

the GDEX token.

All transactions that move GDEX attract a small fee worth 0.5% of the total amount. This fee will go into two pools:

- 90% shared for all farmers.
- 10% burned directly.

For example, suppose that GDEX's current price is \$0.10 and there are 10 pools on GhostDex. When a user swaps 1,000 USDT to GDEX (on any exchange or DEX), in theory that user should receive about 10,000 GDEX (slippage not included). But because of the deflation mechanism, the user would only get about 9,950 GDEX. The remaining 50 GDEX would be divided into two parts: 5 GDEX would be put in the burning pool, and the other 45 GDEX would be shared among the 10 farming pools based on the amount of liquidity in each one. This way farmers can earn their own rewards without minting any GDEX tokens.

With this mechanism the supply of GDEX tokens will decrease over time, making a positive impact on the price of GDEX.

For another example, suppose that the system has an existing DOT-USDT pool with a current LP of 10,000 USDT and 1,000 DOT. Suppose a user has 2,000 USDT and wants to join in farming: the user would need to add 1,000 USDT and 100 DOT (bought with 1,000 USDT at the price of \$10 per DOT, not including slippage) to the pool. At this point, this user's LP DOT-USDT share in the pool is 100 / (1,000 + 100) = 9.091%. As such, when 1,000 GDEX is added to the pool as for rewards, this user would earn 90.91 claimable GDEX.

GhostDex Lending

Coming soon.

GhostDex Launchpad

Coming soon.

3. GDEX token

GDEX is the native token of the GhostDex ecosystem. The main features of the GDEX tokens are:

- 1. Rewards for farming: Like other Defi platforms, there will be many pools for farming. Liquidity providers will earn an amount of GDEX that corresponds to the total amount of liquidity that they added.
- **2 Governance**: GDEX holders have the right to vote to change parameters, features and developmental roadmaps of the GhostDex ecosystem in the future.
- 3. Lending fee: Using GDEX for fees to borrow on GhostDex Lending, the user will receive a 50% discount, and the remaining 50% will be burned to support the deflationary token mechanism.
- **4. Launchpad**: To participate in future projects on GhostDex Launchpad, a user must lock a certain amount of GDEX to farm lottery tickets.

Additionally, GDEX will play an important role in the development and expansion of the GhostDex ecosystem in the future. Marketing strategies, bounties, listing exchanges and more will all use GDEX as rewards and for fees.

4. Security

Defi is becoming more popular and offers great opportunities for cryptocurrency investors. The total value locked (TVL) in Defi has reached more than \$10 billion in 2020. However, as a result of the rapidly evolving and innovating nature of Defi, vulnerabilities have been exposed and exploited by hackers. Sadly, in many cases, when this occurs, the end user is the one that suffers when funds disappear.

There are several solutions that GhostDex will implement to maximize its security:

- Smart contract audit: All GhostDex's smart contracts, before running on Mainnet, will be fully audited by a reputable third party such as Quantstamp, CerticK or Consensys.
- The system will monitor transactions on the dApp to detect unusual transactions, such as large volume transactions, high frequency transactions in a short time frame and the actions of malicious whales.
- Immediately pause the contract system in the case of something going wrong.
- A reserve fund for compensation if any loss occurs.

5. Tokenomics

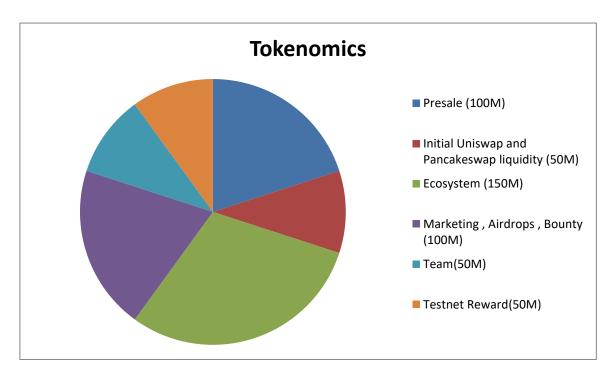
Total GDEX supply will be 500,000,000 (500M) GDEX. The token allocation details are as follows:

- **1. Presale**: 20% (100M). Presale tokens will be unlocked right after listing on Uniswap. Tokens that aren't not sold in the presale will be burned. Details of the presale will be announced on GhostDex's media channels soon.
- 2 Initial Uniswap and Pancakeswap liquidity: 10% (50M). After the presale, GDEX will be listed on Uniswap for trading.

It's expected to add 60% amount of ETH from presale.

- **3. Ecosystem**: 30% (150M). This fund is used to develop the GhostDex ecosystems, including future developments and legal issues. The 30M tokens in the Ecosystem fund will be unlocked at a rate of 1M tokens per month from TGE. Therefore, it will take 30 months for the Ecosystem unlock to be completed.
- **4. Marketing, Airdrops, Bounty**: 20% (100M). This fund will be used to implement marketing campaigns, advertising and bounties, for the purpose of developing the community, products and ecosystem of GhostDex. 1M tokens will be released every month from TGE.
- **5. Team**: 10% (50M). This fund will be shared between the founders and developers of GhostDex. All of them will be locked for 2 years, with tokens releasing at a rate of 5M tokens every 6 months from TGE.
- **6. Testnet Reward:** 10% (50M). This fund will be shared among GhostDex's testnet users. All of them will be locked for 6 months and the tokens will be released from TGE at the rate of 5 million coins every month.

All the token locks and unlocks will be done automatically by the GhostDex smart contract on the Ethereum platform, and no one will be able to intervene and change it at any stage.



GDEX Token Release Schedule

7. Roadmap

Q4, 2020:

- Project start-up. Product conception. System architecture development.

Q1, 2020:

- Complete Design.

Q2, 2021:

- Roadmap, Whitepaper Completed .

Q3, 2021:

- Token Development, Open Sale, Community Big Event.

Q4, 2021:

- Listing on PancakeSwap,ChainX, Uniswap and CoinMarketCap.

Q1, 2022:

- Planing Testnet.

8. Q2, 2022:

Mainnet.

8. Disclaimers

The purpose of this whitepaper is to present the **GhostDex** cryptocurrency. The information set forth herein may not be exhaustive and does not imply any elements of a contractual relationship. Its sole purpose is to provide relevant, reasonable information to potential investors and participants for them to determine whether to undertake a more thorough analysis of the offering.

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Cryptocurrency exchange rates have exhibited strong volatility to the date and extent of exposure to potential loss that could extend to the entire cryptocurrency investment. Many factors outside the control of **GhostDex** will affect the market price of cryptocurrencies, including, but not limited to, national and international economic, financial, regulatory, political, terrorist, military, and other events, adverse or positive news events and publicity, and generally extreme, uncertain, and volatile market conditions. Extreme changes in price and ability to sell/exchange may occur at any time.