



# WHITEPAPER v1.0

Obsidium is an ecosystem serverless, cross-chain, layer-2 solution that fuel the crypto space with DeFi, AMM & NFTs.

ENGLISH VERSION



## Introduction to OBS (Obsidium)



Obsidium is an ecosystem serverless, cross-chain, layer-2 solution that fuel the crypto space with DeFi, AMM & NFTs. Its benefits include infinite scalability, high throughput sub-second confirmation time, and fees at a tenth of a cent. Obsidium (\$OBS) was created to develop the concept of “Zero Initial Supply”.

As a result, OBS (Obsidium) token is generated with a maximum supply of 14,500,000.00 and would be used as governance tokens into the Obsidium ecosystem.

“OBS” Obsidium is a cross-chain smart contract and as any smart contract, it is needed a blockchain to be deployed. Any cross-chain smart contract requires a blockchain to deploy them primary smart contract, “OBS” Obsidium choose Binance Smart Chain (BSC).

As OBS (Obsidium) is a cross-chain smart contract, as soon as liquidity is deployed into an DEX we will start opening the bridges to the other blockchains.

OBS (Obsidium) is a lightweight and serverless layer-2 solution that solves the incentive problems by incentivizing validators to compete for speed and fees. Obsidium builds on top of available serverless infrastructure services offered by all major cloud providers, leveraging the simplicity, predictability, and (theoretically) infinite scalability of storage and compute. Rather than spending significant portions of time, focus, and development resources on innovating distributed compute and storage, Obsidium wants to build upon proven serverless offerings from major cloud providers and decide to focus on what matters most to Obsidium’s mission: the advancement of dApp, Launchpad, Dex, Cex, Metaverse, Gaming and NFT adoption at the interface level, with the goal to onboard 1 billion users.

To do that, OBS (Obsidium) provides a lightweight but highly scalable layer-2 solution into the blockchains with native pre-written and extensively tested “programs” that asset-pools can use. These programs currently include ten common decentralized finance and gaming functionalities such as auctions, fee delegation, launch pads/fundraising, locking/vesting, loot boxes/drop zones, lottery/airdrops, royalty/assets with native yield, staking, swapping/decentralized trading, and voting.



## What is Obsidium

OBS (Obsidium) is the governance token into the Obsidium ecosystem consisting of various apps (mobile app for virtualization and tokenization of people and objects) and dApps (such as NFT marketplaces, DEXs, authenticity, and deduplication for NFTs).

## Mission

Obsidium's mission is to onboard 1 billion users to the Metaverse by developing intuitive applications & interfaces for mainstream adoption.

## Focus Areas

Obsidium focuses on promoting Metaverse and NFT adoption using blockchain (asset registry, virtualization, dApps) and vision AI (object detection/segmentation). The six core pillars of Obsidium ecosystem are:

1. **Simplifying:** Real assets registry it's still manipulated and not 100% transparent. Obsidium is proposing to build an 4D scanning app to empower anyone to register the real assets/good into the blockchain technology. AI recognition of real lands, property's, cars and many more kind of good's.
2. **Cross-Chain Layer-2:** Building the first cross-chain layer-2 ecosystem for simplifying real and virtual assets registry and tokenomization. We propose the sub-second identification of any duplicate items, assets and tokens on any blockchain. Integrating AI identity protection and deduplication.
3. **dApps:** Building the first cross-chain layer-2 dApp into the Obsidium ecosystem that will provide fundamentally core functionality by the new under development technology of one click setup using no-code interface. ( e.g. Identity, Yielding, Farming, Minting. )
4. **NFTs:** Building the first cross-chain layer-2 NFT Marketplace that will open the metaverse, omniverse and any virtual world for contect creators and digital art lovers to can interact and transact with all NFTs available in any other Marketplace of any other blockchains. ( e.g. Avatars, Skins, Virtual Lands, Characters, Virtual Properties, Virtual Adds. )
5. **Exchange:** Developing the first Exchange to interact and transact from any blockchain at a tenth of a cent transaction costs. Exchange Token for Token, NFT for NFT, Token for NFT or any virtual assets available.
6. **Launchpad & Liquidity:** Developing the first cross-chain layer-2 Launchpad, Liquidity Provider & Liquidity Locker provided by the new under development technology of one click setup using no-code interface.



## Binance Smart Chain (BSC)

*What is “Binance Smart Chain (BSC)” ?*



Binance Smart Chain (BSC) is a blockchain network forked from Ethereum, which is designed to be compatible with previously developed protocol on Ethereum network called Ethereum Virtual Machine (EVM). The ability to create Smart Contract of Ethereum Virtual Machine makes it convenient for the third party developers to create their own DeFi protocol. Similar to creating them on Ethereum network, Binance Smart Chain (BSC) will cooperate with Binance Chain but the difference, compared to Ethereum, is Binance Smart Chain (BSC) operates with Smart Contract feature and is also compatible with Ethereum Virtual Machine.

Binance Smart Chain (BSC) uses a consensus algorithm, known as Proof of Staked Authority (PoSA), with 21 validators staking BNB tokens, the native token for Binance ecosystem in order to secure the network. However, Binance Smart Chain (BSC) provides the fastest confirmation time and the lowest fee structure.



## Why do we choose Binance Smart Chain (BSC)?

Binance Smart Chain (BSC) allows developers to build a DeFi protocol within the Binance network, the world largest cryptocurrency exchange. It is regarded as one of the most popular networks among investors and developers in the DeFi industry and is growing rapidly. Therefore, it is interesting to utilize it as an infrastructure for DeFi development. Furthermore, it cooperates with the BEP-20 Smart Contract standard for issuing a new token on Binance Smart Chain (BSC) network, which is similar to Ethereum's ERC-20 Smart Contract standard.

As part of Ethereum, Binance Smart Chain (BSC) network is able to run Smart Contract in the same way as Ethereum, which allows a fast bootstrap for the network.

## Advantages of Binance Smart Chain (BSC)

### Low Transaction Fee

Fee transaction, also known as gas fee, is the fee that users are required to pay when transacting on blockchain. This fee will be awarded to the miners or validators for verifying that the blockchain is logged and processes the transaction correctly. The vast majority of DeFi applications involve transactions, and there is a fee associated in every process. Therefore, the blockchain fee is an important factor to consider choosing a blockchain network to make a transaction with a blockchain network. Nonetheless, Binance Smart Chain (BSC) blockchain fee is significantly cheaper than Ethereum.

### Fast Transaction

Transactions on blockchain require a certain amount of validation before the transaction is completed. The reason for confirmation is to avoid the risk of double payment. The longer the confirmation time requires, the more transaction time it takes. Therefore, avoiding unnecessary delay in transactions is another major factor that has to be taken into consideration when choosing a blockchain network. Binance Smart Chain (BSC) is created to increase transaction speed, higher efficiency and low latency but it is designed to support Smart Contract and increase scalability on high-traffic blockchain. So it can adjust the use of Smart Contract to be more intuitive to create Decentralized Application (DApp) that can handle a large number of transactions. Binance Smart Chain (BSC) is compatible with Smart Contract for Decentralized Application (DApp) and able to connect to Binance Chain to provide faster confirmation time and higher transaction processing speed.



## **Economic growth of Binance Smart Chain (BSC)**

Binance Smart Chain(BSC) is one of the fastest growing blockchain ecosystems in the world due to lower transaction time and cheaper fee when compared to other blockchain ecosystems. Furthermore, developers can easily migrate from Ethereum to Binance Smart Chain (BSC). As a result, the number of daily transactions increased from 300,000 transactions per day in January 2021 to a maximum of 12,000,000 transactions per day in August 2021. Additionally, the average daily transactions in April 2021 to August 2021 amounted to 7,000,000 transactions per day.

## **Total Value Locked (TVL) on Binance Smart Chain (BSC)**

Total Value Locked (TVL) on Binance Smart Chain (BSC) is significantly increasing from under \$10 billion in early 2021 to \$28.9 billion as of August 2021, increasing nearly 300%.





# Obsidium Token

## OBS (Obsidium) General Info

- Token Name: Obsidium Token
- Symbol and Unit: OBS
- Decimals: 18
- Initial Circulating Supply: 5,075,000
- Total Supply: 14,500,000
- Initial Market Cap: \$90.000

## Token Distribution & Percentages

- Team: 1,450,000 / 10%
- Marketing: 1,116,000 / 8%
- Liquidity: 5,075,000 / 35%
- IDO: 1,450,000 / 10%
- Airdrop / Giveaway: 290,000 / 2%
- Ecosystem: 2,320,000 / 16%
- Reserve: 725,000 / 5%
- Staking / Rewards: 2,030,000 / 14%

## Tokenomics Overview

The main mechanism of Obsidium contract include a 6% fee only on all tokens sells. It is applicable for only 6 months (0% thereafter). The second mechanism of Obsidium contract include an Anti-dump Max Sell no more than 1.05% of supply over 24 hours – only applicable for 6 months (0% thereafter).

## Sell fee distribution

- Liquidity pool: 4,5%
- Marketing: 1%
- Buyback: 0.5%

The fee distribution of Marketing and Buyback will be send as BNB into two different wallets.



# Serverless Architecture

We propose a new serverless layer-2 solution into blockchains architecture that focuses on user benefits such as fast transaction confirmation times, low fees (around \$0.001), and theoretically infinite data scalability for the demands of Gaming, Metaverse, and Web 3.0 applications (easily in the TB/PB range) by leveraging serverless cloud services.

Obsidium's cross-chain smart contract can be executed on any machine in theory. However, we see an enormous opportunity in serverless offerings by major cloud providers, which allows tapping into proven, stable, and theoretically infinitely scalable compute and storage services while providing the most demanded benefits to end-users (fast confirmation times, low fees, and integrity/verifiability of transactions).

Serverless technologies by common cloud platforms such as AWS, Azure, GCP, Alibaba Cloud were early in 2019/2020. Today, however, we can label these as fully mature and production-grade choices. Furthermore, many content delivery networks such as Cloudflare and Fastly also provide edge-compute capabilities, which have improved to the point of supporting the demands of high-throughput financial transfers.

The level of maturity, the ease of access/setup, and linear cost models are reasons for Xeta to focus exclusively on the serverless stack through offerings by the cloud platforms mentioned above.

For compute functionality, this encompasses building on AWS Lambda, Azure Functions, Google Cloud Functions, Alibaba Function Compute, Cloudflare Workers, and Fastly Compute@Edge. Storage leverages Amazon Quantum Ledger DB, Amazon DynamoDB, Azure CosmosDB, Google Firestore, Alibaba Tablestore, and Cloudflare Workers KV.





# Pools & Programs

## Programs replacing EVM

OBS (Obsidium) prioritizes client benefits (most notably confirmation speed and low fees) rather than providing a virtualized compute platform that executes bytecode. OBS (Obsidium) covers major use-case programs such as locking, staking, trading, voting, etc., which find importance in applications for Metaverse, Gaming, and NFTs.

Focusing on a few programs rather than providing full EVM capabilities results in faster development and easier testing. OBS (Obsidium) we will provide a limited number of pre-written programs to creators who are building on top of OBS (Obsidium). Creators often are not familiar with languages like Solidity and would rather spend time implementing features than writing and testing the underlying smart contracts.

Lastly, each of Obsidium's pre-written programs goes through extensive testing and becomes more trustworthy with every transaction processed.

TLDR: OBS (Obsidium) provides native programs instead of EVM functionality to improve development speed, guarantee ease of access to creators/users, and ultimately, focus on what matters most to Obsidium's mission: the adoption of Metaverse/NFT applications.

## Programs

OBS (Obsidium) focuses on Metaverse applications that frequently require features such as auctions, voting, swapping, and similar. OBS (Obsidium) provides ten in-built programs available as the underlying mechanism when creating a new asset pool. Asset pools are smart contracts that send and receive transactions while executing a set of pre-written instructions tied to an underlying asset.

- Auctions
  - Auctions allow anyone to offer fungible or non-fungible tokens for sale. Bids are handled by the program, and auctions are considered successful when the auction pool has no target, the target is met, or the limit is met (equivalent to an instant purchase at maximum price).
- Fee Delegation
  - Fee delegation pools hold OBS (Obsidium) tokens which can be used for transaction fee reimbursements for users transacting with that specific asset (think fee-less voting, fee-less trading, fee-less participation in airdrops). The intention behind fee delegation is to avoid passing off costs to end-users (which is not always desired).



- Fund Raising
  - Fundraising pools allow creators to raise OBS (Obsidium) until a specific target or limit is met. Successful funds distribute portions of the raised amount to the creator and the remainder to the assets' swap pool as liquidity. If a pool rate is set, the fund automatically swaps OBS (Obsidium) to asset tokens at that specified rate directly, without the condition of having to meet a fundraising goal.
- Loot
  - Loot pools allow NFT creators and games to distribute (drop) new NFTs, items, skins from a collection in a randomized and engaging way. Users can enter for free or for a fee as specified by the pool creator. Entrants receive tickets that have a certain probability of winning a random item from the loot pool.
- Locking
  - Locking pools allow asset owners to lock funds for various use-cases, such as delayed payouts and vesting.
- Lottery
  - Promo pools provide an airdrop/lottery mechanism, which can engage users or distribute tokens in a simple and fair way. Users can participate for free or for a fee (specified upon pool creation) and receive tickets with a certain probability to win from the prize pool.
- Royalty
  - Royalty pools are set up by an asset creator who wishes to reward all or parts of his assets based on a specified daily rate. Currently, this finds application in providing NFTs with yield for holding (royalties).
- Staking
  - Staking pools allow token creators to reward holders of fungible tokens, depending on lock-up length and amount. For example, a pool creator might specify a certain APY and bonus rate for his pool, deposit reward tokens, and allow users to lock up tokens into the pool who will receive rewards once their lock-up period expires.
- Swapping
  - Swapping pools are pools holding OBS (Obsidium) and the pool asset, which can be exchanged one for another. Swap pools are the same functionality that makes popular DEXs like Uniswap or PancakeSwap possible.
- Voting
  - Voting pools allow users to submit votes given a list of assets/addresses or numbers (prediction markets). Voting can be used for governance (voting for new proposals), for predictions with payouts to the winning voters, or to engage users (a mechanism to vote on any tokenized objects and get paid if the vote was correct after pool expiry).



## Liquidity

The first liquidity of OBS (Obsidium) token occurs when the team decides to Provide Liquidity by adding a pair of cryptocurrencies in a Liquidity Pool to set the price of the asset and create liquidity for other users to exchange their assets with the assets in the pool.

## Liquidity Provider

A user can become a Liquidity Provider by adding a pair of cryptocurrencies in a Liquidity Pool in exchange of OBS Liquidity Provider (OBS – LP) token in proportion to the contributed liquidity. Also a user can become a Liquidity Provider by engaging in a staking contract to earn OBS (Obsidium) to gain reward and increase the Market Cap of OBS (Obsidium) in the market. The liquidity provider can harvest OBS (Obsidium) reward in accordance with the conditions of contract that the liquidity provider agrees before staking.

## Pricing Mechanism

The value of OBS (Obsidium) token is determined by the pricing mechanism of DEXs platforms that implement an Automated Market Maker (AMM) system. The price of the token is mathematically calculated by the amount that DEXs users exchange the token and available liquidity in the Liquidity Pool on Decentralized Exchanges (DEXs). The Liquidity Pool always rebalances the value of the cryptocurrency pairs in the pool at a 50:50 ratio, no matter how much exchange volumes occur. Therefore, the value of the token on Decentralized Exchanges (DEXs) is always reflected with its asset – backed in the Liquidity Pool.



## Ecosystem

### **OBS (Obsidium) ecosystem starts with 0 (Zero) Initial Supply**

Majority of ecosystem usually issue too excessive tokens in their early phases, commonly contributing to oversupply and shortage of demand, which is a disequilibrium between demand and supply of the token. As excessive tokens are circulating the market with low demand of

buyers, excess supply of the tokens occurs. In case that the demand of the token is low, low trading volume will naturally occur afterwards, and the token price will dive below the equilibrium price.

**Over Supply or Excess Supply** is caused by an imbalance between demand and supply. When the demand is lower than the quantity of supply, there will be excessive supply in the market and result in decreasing the price of the product.

**Over Demand or Excess Demand** is also caused by an imbalance between demand and supply. When the demand is higher than the quantity of supply available in the market, it will result in increasing the price of the product. In economics terms, Law of Demand [3] and Law of Supply [4] occur when a buyer and a seller meet at a satisfied price and quantity. At that point, an equilibrium is established. The equilibrium will not change as long as all factors related to demand and supply remain the same. The price when demand is equivalent to supply is called 'Market Equilibrium Price' and the quantity of supply at that point is called 'Market Equilibrium Quantity'. 'Market Equilibrium' is the state in which market supply and demand balance each other, and as a result, prices become stable

For the sake of Ecosystem Equilibrium, OBS (Obsidium) ecosystem is created with the concept of 'Initial Zero Supply' to get rid of the state of oversupply by starting the project without any pre-issued or pre-mined token. With this concept, the real value of a digital asset should start with 0 (Zero) supply and then later increase the supply of the token by the demand of token builders only.

### **Total Supply**

The total supply of OBS (Obsidium) ecosystem is uncapped as all tokens are created by real demand of token builders' staking contracts. This mechanism is the main factor that stabilizes and sustains OBS (Obsidium) ecosystem in the long run.



## Liquidity

The first liquidity of any token created into the OBS (Obsidium) ecosystem occurs when a user becomes a Liquidity Provider by adding a pair of OBS (Obsidium) in a Liquidity Pool to set the price of the asset and create liquidity for other users to exchange their assets with the assets in the pool. A token builder can engage in a staking contract to earn the new token from the OBS (Obsidium) ecosystem to gain reward and increase the circulating supply of the new token from the OBS (Obsidium) ecosystem in the market. The token builder can harvest (New Token) reward in accordance with the conditions of contract that the token builder agrees before staking.

## Inflation Prevention (Price Inflation)

In order to avoid over supply of OBS (Obsidium) ecosystem and keep the market equilibrium, a burning mechanism is applied to decrease the supply of the token and keep the circulating supply reflecting its real value to prevent inflation for the highest benefit of (New Token) holders.

## OBS (Obsidium) Production

All users can be OBS (Obsidium) token builders. Due to the Initial Zero Supply, OBS (Obsidium) will be used to generate new tokens by a fair launch distribution mechanism, and the amount will be determined by holders' demands. The production adopts "Liquidity Mining" as a process: a user or a token builder stakes assets in compliance with Smart Contract conditions designated on Blockchain. Afterwards, the platform will provide (New Token) as a reward in return. Therefore, the entire amount of (New Token) is specifically indicated by the token builders' demand.

## Staking OBS (Obsidium)

In order to stake OBS (Obsidium) token, the users must stake assets on Obsidium DeFi in compliance with Smart Contract conditions designated on Blockchain, and the platform will provide (New Token) as a reward in return.

## Unstaking OBS (Obsidium)

If token builders unstake when the contract terminates, token builders are not required to pay a penalty fee. If the token builders want to unstake before the contract termination date, a penalty fee will be applied in compliance with the terms and conditions of the contract which

the users acknowledged and consented to before staking. The fee will be delivered to OBS (Obsidium) deployer's wallet address, and the total reward, which is the rest of (New



Token) from staking that the token builder has yet to harvest, will be sent to the token builder's wallet address that is used for staking.

## Harvesting (New Token)

Users can harvest their reward at any time in accordance with the terms and conditions provided before staking.

## Burning (New Token)

If a user unstakes before the contract termination date, the prepared reward earned at a rate of its block time will be burnt automatically via Smart Contract in order to control the inflation rate of the (New Token).

## Fees

- Staking Fee – a user agrees and acknowledges that a staking fee will be applied when the user stakes his/her assets in the contract.
- Penalty Fee – a user agrees and acknowledges that a penalty fee will be applied in case of early unstaking before the contract terminates.
- Harvest Fee – a user agrees and acknowledges that a harvest fee will be applied when the user harvests (New Token) reward.
- Additional Token Reward (ATR) – a user agrees and acknowledges that an engagement in a staking contract, Additional Token Reward (ATR) in OBS (Obsidium) ecosystem will be generated in proportion of the contract condition and the reward will be automatically transferred to developer's wallet.

## Fee Usage

The developer team can use fees as required, including promoting projects such as improving the community of OBS (Obsidium) users, marketing and promoting Liquidity Pool, etc.

## Pool of OBS (Obsidium)

Pool of coins or tokens in which can be staked in order to earn OBS (Obsidium).

## Swapping on DEXs (Decentralized Exchange)

Users are able to exchange (swap) other coins for OBS (Obsidium) or vice versa on Decentralized Exchanges (DEXs) on Blockchain network.





## DEX

### What is “Decentralized Exchange (DEXs)” ?

“Decentralized Exchanges” or “DEXs” are decentralized trading centers that provide trading services without intermediaries, which also provide peer -to-peer cryptocurrency transaction service. Additionally, tokens can be traded or exchanged any time as long as there is demand

and supply. Also, the tokens do not need to be on Centralized Exchanges (CEXs).

PancakeSwap is a platform of Decentralized Exchanges (DEXs) that runs Liquidity Pool by Automated Market Maker (AMM) and are regarded as the most used platform on the Binance

Smart Chain (BSC) network where users can swap various cryptocurrencies.



# OBS (Obsidium) Roadmap

## Q4 – 2021

- **Base of Obsidium Ecosystem** – A lightweight ecosystem to support asset tokenization and transactions with sub-second latencies.
- **Ecosystem Explorer & Metrics** – An analytics dashboard for interacting with the Obsidium Ecosystem.
- Building bridges between various blockchains to can interact and transact \$OBS. Successfull IDO, reaching the Hard Cap & Succesfull Launching first Smart Contract. Coin Market Cap & CoinGecko listing.
- BSCScan Profile Update.
- Marketing campaign, bringing content creators and infuelncers onboard.
- Top 100 Exchanges listing.
- Reach a minimum of 100.000 Holders and a Market Cap of \$1.000.000. Also get in top 3000 as Market Rank.

## Q1 – 2022

- **Minting & Tokenization Interface** – Simplification of minting tokens into the Obsidium Ecosystem (Zero Intial Supply) & creating tokens – enabled by a no-code interface.
- **Staking & Minting dApp for Holders** – Launching the first Cross-Chain native dApp into Obsidium Ecosystem – A staking function into the dApp that rewards holders by locking tokens for a predictable APY, Also a Minting function into dApp that generate a total supply for tokens created into the Obsidium Ecosystem, this tokens would be generated by staking \$OBS and users are rewarded with token created.
- **4D Scanning Virtualization** – A mobile app that enables virtualization of anything with possibilities such as NFT/avatar creation or registry/virtualization of surroundings.
- **Creation of DEXs / Marketplaces** – One-click creation of customizable DEXs (for tokens) and marketplaces (for NFT assets).
- Extending bridges between more blockchains.
- Top 50 Exchanges listing.
- Expanding business development to establish partnerships and bringing Obsidium into the Public attention. Partnerships announce.



- Reach a minimum of 150.000 Holders and a Market Cap of \$5.000.000. Also get in top 1000 as Market Rank.

## Q2 – 2022

- **Real-Time Assets Segmentation** – Training vision AI models (on top of the current state-of-the-art models), capable of detecting and segmenting 200-300 different objects (integrated with the Obsidium 4D Scanning scanning app).
- **NFT Uniqueness & Identity Protection** – Using methods such as Local Sensitive Hashing for deduplication/IP protection and governance mechanisms for conflict resolution.
- **Launchpad & Liquidity** – Building the first cross-chain layer-2 Launchpad, Liquidity Provider & Liquidity Locker.
- Top 30 Exchanges listing.
- Reach a minimum of 250.000 Holders and a Market Cap of \$100.000.000. Also get in top 500 as Market Rank

## Q3 – 2022

- **Digital Real Estate** – Bringing together Obsidium Ecosystem (assets registry), 4D graphics, and our underlying APIs (storage) to virtualize and trade virtual land.
- **dApp/Metaverse Ecosystem** – Expanding business development to establish more partnerships and to implement Obsidium Ecosystem technology. Partnerships announce.
- Top 20 Exchanges listing.
- Reach a minimum of 500.000 Holders and a Market Cap of \$500.000.000. Also get in top 200 as Market Rank.

## Q4 – 2022

- **Bridges & Interoperability** – Building bridges to transfer assets and tokens between various blockchains & virtual realities and allowing the import of assets from blockchains to Obsidium from Obsidium to other blockchains.
- **Decentralized Data APIs** – Providing simple and well-documented APIs to developers for decentralized data storage and access.
- Expanding business development to establish partnerships and bringing Obsidium into the Public attention. Partnerships announce.
- Top 10 Exchanges listing.
- Reach a minimum of 1.000.000 Holders and a Market Cap of \$1.000.000.000. Also get in top 100 as Market Rank.



## Reference

[1] The specific conditions of contracts to automatically execute such as Pool Fee, Penalty Fee, Harvest Fee, the number of tokens received.

[2] 147 Decentralized Exchanges (DEXs) is compatible with Binance Smart Chain (BSC). Data on July 9th, 2021 from

<https://twitter.com/BscProjectOrg/status/1413463083620573186/photo/2>

[3] The Law of Demand means that the amount of purchase increases when the price decreases and the purchase volume is less when the price is higher by determining factors other than price and quantity to be fixed.

[4] The Law of Supply means selling more quantities when they are sold at higher prices and selling in less quantities when the price decreases by determining factors other than price and quantity to be fixed.



# Appendix

## Glossary

**Initial DEX Offering (IDO)** — An **initial DEX offering** or IDO refers to the launching of a cryptocurrency on a decentralized exchange (DEX). In an IDO, a blockchain project makes a coin's first public debut on a DEX in order to raise funding from retail investors.

**Automated Market Maker (AMM)** — a protocol used in the Decentralized Exchanges (DEXs) to determine the token's price through a mathematical process instead of the traditional order book in Centralized Exchanges (CEXs).

**Binance USD (BUSD)** — a currency that is pegged with USD in a ratio of 1:1, issued by Binance (cooperated with Paxos), approved and regulated by New York State Department of Financial Services (NYDFS).

**Blockchain** — a secure, reliable, decentralized distributed ledger that is fully auditable and difficult to counterfeit. It is utilized in the financial system requiring high credibility. It leads to a new form of a financial system called "Decentralized Finance" or "DeFi".

**Centralized Exchanges (CEXs)** — platforms using intermediaries to facilitate the transactions, namely buying, selling, trading either for fiat currencies and digital currencies.

**Centralized Finance (CeFi)** — a financial system where a financial institution regulates transactions.

**Decentralized Application (DApp)** — a financial application without an intermediary, running on a peer-to-peer (P2P) network on blockchain.

**Decentralized Exchanges (DEXs)** — platforms for buying, selling, trading between digital currencies, running on a peer-to-peer (P2P) network, where users are allowed to trade their assets without any intermediaries.

**Farm/Stake or Farming** — a means to farm in the cryptocurrency world where the users are Liquidity Provider by adding tokens into a Liquidity Pool. They can choose DeFi platforms which give rewards as agreed or contracted, similar to farming or sowing and the users can

get reward and can harvest the tokens of the platform, which return as the ratio of token staked (Staking) in order to become a reward for providing liquidity.

**Harvest** — a method to gain or attain the outcome from Farm/Staking/Farming without unstaking.

**Impermanent Loss** — the loss of the capital temporarily. It can happen when the liquidity is provided to the Liquidity Pool and the contracted asset price fluctuates in a downturn compared to the contracted price. The more changes it happens, the more chances for impermanent loss or temporary loss can ensue. In this case, loss or losing means the value at the withdrawal time is less than the value at the deposit time.



**Liquidity Mining** — a process to decode the liquidity in order to obtain rewards in the form of tokens on DeFi platforms as identified in an agreement or covenant.

**Liquidity Pool** — a liquidity fund in which the users can place currency pairs to maintain their equal value (in a ratio of 50:50) in order to provide liquidity on Decentralized Exchanges (DEXs).

**Liquidity Provider** — a user who provides liquidity into the market by depositing trading pairs into the pool and obtaining transaction fees from the exchanged pairs.

**Market Capitalization (Market Cap)** — the highest total value of the asset, calculated by multiplying the current price and the total amount of asset. This means to place importance on the value of the asset rather than the security.

**Proof of Stake (PoS)** — an acceptable algorithm to build consensus on blockchain instead of Proof of Work by staking tokens in the system in an exchange of the rights to validate and verify transactions.

**Proof of Staked-Authority (PoSA)** — a procedure of consensus on blockchain by validators, with the combination of Proof of Stake (PoS) and Proof of Authority (PoA). Therefore, the speed per block is higher and the fee is lower.

**Smart Contract** — programmable coding embedded in blockchain that operates according to a set of instructions defined by itself, which is transparent and verifiable. Stake or Staking — a process in which investors pledge their assets and make a contract in order to obtain “Reward” in return.

**Swap** — an action to exchange a token to another token. This leads to price fluctuations of assets, which depend on the exchange volume compared to the liquidity pool.

**Total Value Locked (TVL)** — the total number of pledged assets which can indicate the capability to build enough supply for demand.

**Unstake** — a practice to terminate a contract of staking on the system.