NFT Mystery Box Swap Platform

White Paper v1.0

Mystery Box Swap Platform

MBC | April, 2021

Overview

The non-fungible token (NFT), by virtue of its inseparability, can be bound to some commodities in the real world. For example, NFT is popularly used in the trading of digital works of art like collections, game items, digital art, event tickets, ownership records of domain names, etc..

Encrypting the artist's signature on the blockchain can effectively verify the authenticity and the ownership of the works of art. Therefore, related concept stocks are popular in the U.S. stock market, whose stock prices have risen 10 times in the latest six trading days (by March 24, 2021) in Hong Kong Takung Art.

Currently, the centralized exchanges and the decentralized transactions of fungible tokens (ERC20), such as Coinbase, Huobi, Uniswap and Sushiswap, have been available while NFTs are still in its infancy and waiting for being understood by the public. However, with the improvement of digital assets, the public will increasingly recognize the true value of NFTs. So we can now start to build a decentralized NFT swap platform to lay a foundation for the formation of a decentralized NFT trading market in the future.
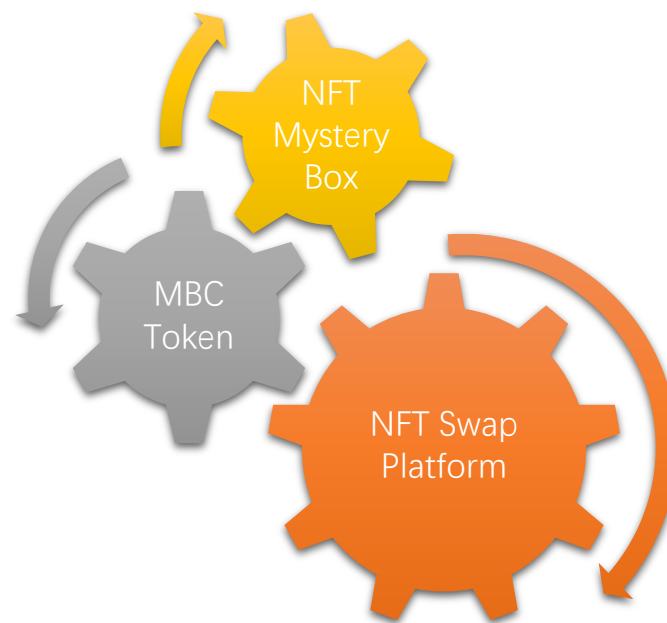
The indivisible particularity of NFTs requires a specific design for decentralized NFT transactions. In order to quickly realize the trading of NFTs, we choose to build a NFT swap platform backed by mystery boxes and then realize the free trading of all NFTs.

Featured by zero private investment, zero team reservation, and zero pre-mining, the NFT mystery box swap platform is a project with a purpose of realizing the free trading of NFT mystery box assets through the decentralized community autonomy of NFT assets.

Focusing on NFT transactions, our vision is to establish a complete centralized and decentralized digital swap platform integrating NFT sales, transactions and community autonomy.

NFT Mystery Box Swap Platform

In order to realize the free trading of NFT mystery boxes, underlying basic components are required to be provided for the platform, especially the three most important parts: MBC tokens, NFT mystery boxes, and the NFT mystery box swap platform.

NFT Mystery Box Coin (MBC)

NFT MBCs are tokens used by the NFT mystery box swap platform to pay the handling fees.

MBCs are generated according to a certain pattern when a user purchases and swaps mystery boxes. The generated MBCs will be owned by the users (See MBC
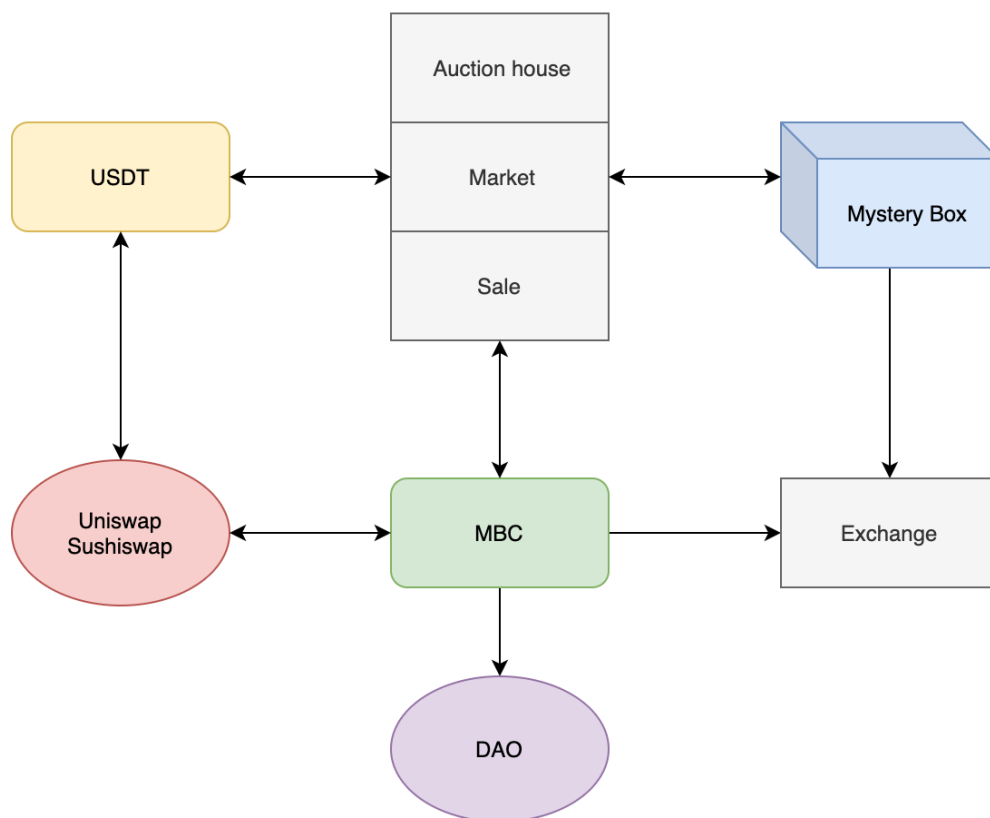
generation in the economic model for details of the generation rules).

When users swap or auction mystery boxes in the swap platform, corresponding handling fees (MBC) should be paid, which will be finally distributed by the community in a unified way as the platform income.

MBCs will also serve as the voting power of the distributed autonomous organization (DAO). All MBC holders can participate in the community governance and vote on project proposals.

We will introduce MBCs to the centralized or decentralized exchange, hoping to reflect the own value of MBCs through market operation and community consensus.

The initial price of a MBC is about 0.2-0.5 USDT, the medium-term price is expected to be 0.5-2.0 USDT, and the long-term target is 2.0-5.0 USDT.

Logical Relationship Diagram

NFT Mystery Boxes

The smart contract for NFT mystery boxes adopts the ERC1155 standard. The image of each set of mystery boxes is designed under the cooperation of the professional animation designer (with the authorization in the blockchain industry), and corresponding profits will be distributed to the copyright owner.

The initial selling price of NFT mystery boxes adopts a unified fixed model, that is, all mystery boxes are sold at the same price of 99USDT. With the development of operations like auctions and sales, the true value of each NFT mystery box will change accordingly.

Limited in quantity (e.g. 10,000), each set of NFT mystery boxes constitute a series while one image may involve multiple different series.

Each set of mystery boxes include 12 independent images, which are called 12 types, of which 11 are universal and 1 is hidden (the appearance probability is 1%).

Mystery boxes are provided with 6 different rare levels, including a special level of cash reward equivalent to 10 times the purchase price of a mystery box (990USDT). A user will automatically skip to his account after opening the box.

The appearance probability of each rare level is as follows:

1. Universal: 50%
2. Rare: 30%
3. Epical: 12%
4. Legendary: 5%
5. Mythic: 2%
6. Cash: 1%

Each NFT mystery box is purchased in an unopened state and the user can choose to open the box or not. If the user does not open the box, he cannot know the contents of the mystery box (only when the box is opened will various attributes of the box be calculated in real time).

There is a combination relationship between the image type of a mystery box

and its rare level (image + level). See details in the following table:

Mystery box series	Appearance probabilities of rare levels					
Image	Universal	Rare	Epical	Legendary	Mythic	Cash
A	50%	30%	12%	5%	2%	1%
B	50%	30%	12%	5%	2%	1%
...	...	...	...	...	...	...
Hidden	50%	30%	12%	5%	2%	1%

NFT Mystery Box Swap Platform

The swap platform is designed to achieve the purchase, exchange, and auction of the mystery boxes. The development team will increase an independent online function for the mystery boxes (providing open interfaces to grant the developers more permissions). Users can directly obtain mystery boxes through the NFT mystery box swap platform and perform corresponding operations.

Friend Invitation Mechanism

Users can purchase mystery boxes only through the friend invitation mechanism, which allows the establishment of a relationship by invitation codes. Only the users who have purchased mystery boxes can become an inviter. The invitation codes are a decentralized account address of the inviter.

The friend invitation mechanism has only one level, and the invitee automatically becomes subordinate to the inviter. When the invitee purchases a new NFT mystery box, the inviter will automatically get 5% of the purchase price of the NFT mystery box paid for by the invitee, and such rewards will be automatically transferred directly to the inviter's account address.

For example:

1. Alice purchases a NFT mystery box and obtains the invitation permission. Alice's address will be used as the inviter's address.

2. Bob uses Alice's promotion link to visit the official website and buys a NFT mystery box (99 USDT).

3. Alice's account gets 5% of 99 USDT (4.95 USDT) obtained by Bob.

Note: There is no restriction on invitations at the sales stage of the first 10,000 NFT mystery boxes. Any user can directly purchase the NFT mystery boxes and thus automatically become a seed account of the friend invitation mechanism.

Mystery Box Marketing Mechanism

In the early stage, the official team will be responsible for the listing of NFT mystery boxes. With the progress of the development team, the official team will gradually open up the listing function to the public so that any individual or team can list their own NFT mystery boxes on the platform through interfaces for swap.

The listing of a NFT mystery box requires the user to mortgage tokens equivalent to the USDT of the mystery boxes to be listed (for example, listing of 100 mystery boxes requires the mortgage of 9900 MBCs), call the interface according to the interface specifications provided by the development team, and provide the required image design picture.

The NFT community and the development team will review each submitted listing and clarify the time plan for the listing. The mystery box listing mechanism will be clarified and implemented in the development phase 2.0.

Mystery Box Purchase

The swap platform will successively launch various mystery box series. These NFT mystery boxes will be displayed on the purchase page together with their purchase price, remaining quantity and quantities of various levels of opened boxes.

Users pay USDT to purchase mystery boxes (multiple mystery boxes can be purchased at a time), and obtain the mystery boxes in the unopened state as well as the MBCs (used to participate in exchanges and community governance).

Mystery Box Opening

A user can select the unopened mystery boxes for opening (batch opening is possible and the user can open up to 12 boxes at a time). After a mystery boxes is opened, the image in the mystery box and the corresponding rare level will be displayed.

The initial price of the NFT mystery box is equal to its purchase price.

Mystery Box Auction

NFT mystery boxes (including opened and unopened boxes) purchased by users can participate in the auction. A user can select and list mystery boxes to be auctioned after making relevant settings:

1、 Set the starting price of the auction (the user can customize the starting price, which is 100 USDT by default);

2、 Pay MBCs equivalent to 1% of the starting price as the auction fee (100*1%=1MBC by default);

3、 Set the deadline (which is 3 days by default).

For each bid, the minimum mark-up is 1USDT while the maximum is unlimited. When making a bid, the bidder needs to pay USDT as well as the same amount of MBC for pledge.

After each bid, the auction deadline will automatically be extended by 15 minutes (900 seconds), and the previous bidder's USDT and MBC will be returned to his payment account.

When the auction deadline expires, the last bidder will win, who after performing the harvesting operation will obtain the ownership of the NFT mystery box on auction. 1% of MBCs pledged by the winner will be charged as a handling fee, and the other MBCs will be refunded.

The auctioneer gets 99% of the USDT amount, and the platform charges 1% as a handling fee.

The price of the NFT mystery box is updated to the final auction price after the auction.

For example:

1. Alice prices her own legendary mystery box at 10,000 USDT for auction, and pays10MBC as a listing fee.

2. Bob is interested in Alice's mystery box and offers 10001 USDT (and pledgs10001 MBC at the same time).

3. Carol is also interested in Alice's mystery box and offers 10010 USDT (and pledges 10010 MBC at the same time).

    a) Bob's 1001 USDT and 1001 MBCs are refunded to Bob.

4. When the auction deadline reaches, Carol wins the auction.

5. Carol performs the extraction operation:

    a) The price of the mystery box is updated to 10010 USDT;

    b) The ownership of the mystery box is transferred to Carol;

    c) Alice obtains 99% of the bid price (9909.9 USDT);

    d) Carol obtains 99% of MBCs returned (9909.9 MBC)

    e) Others are charged by the platform as handling fees

Mystery Box Swap

The user initiating a NFT mystery box swap (Party A) can swap duplicate and redundant NFT mystery boxes with others (batch operation is possible and the user can swap up to 12 boxes at a time). When Party A initiates a swap, he needs to pledge the same amount of MBCs with the mystery box price. The mystery boxes to be swapped will be displayed in the swap area, waiting for being swapped.

When Party A withdraws from the swap, 1% of the MBCs will be deducted as a handling fee, and the remaining MBCs and the mystery box ownership will be returned to Party A.

In a swap of mystery boxes, the user (Party B) needs to select an equal number of mystery boxes to swap with Party A. and the MBC of 1% of the price of mystery

box should be paid at the same time.

After the swap is completed, the ownerships of the mystery boxes are swapped. The mystery boxes obtained by Party A are still in the state of waiting for swap and can continue to be swapped until Party A withdraws from the swap.

Party A gets 99% of MBC amount paid by Party B as reward (swap for mining). The platform charges 1% of the pledged MBC as a service charge.

For example:

1. Alice plans to swap her 10 mystery boxes:
   a) Pledge 10 * 99 = 990 MBCs;
   b) If the swap is withdrawn, 1% (9.9 MBCs) will be deducted as a handling fee, and the mystery boxes will be returned to Alice;
2. Bob chooses to swap his 10 mystery boxes with Alice;
   a) 10 mystery boxes exchange with Alice
   b) MBC for 1% quantity of mystery box price = 9.9 MBC
3. After the swap is completed:
   a) The ownership of Bob's 10 mystery boxes and that of Alice's 10 mystery boxes are swapped;
   b) The mystery boxes obtained by Alice continue to be listed on the swap platform for swap;
   c) Alice get 9.9*99% = 9.801 MBCs respectively;
   d) The remaining MBC will be retained by the platform as a handling fee.

Mystery Box Fragments

The user's MBCs can be exchanged for mystery box fragments, and a certain amount of fragments can be synthesized into a mystery box.

Ecological Construction of NFT Mystery Boxes

The ecological construction of the NFT mystery boxes involves the NFT mystery box autonomous community which is carried out through DAO. Distributed

voting is adopted to realize the upgrade of the mechanism and strategy. In addition, the developer community will recruit talents through open interfaces and the like to work with core developers to improve the ecological construction of NFTs.

Mystery Box Autonomous Community

The mystery box community is composed of the MBC holders, who can participate in the community autonomy of DAO.

The mystery box community will regularly or irregularly initiate improvement proposals, get results through voting, and adjust the current NFT mystery box strategies and mechanisms based on the voting results. To participate in DAO voting, users need to pledge MBCs for the voting right until the voting results are generated.

The mystery box community regularly organizes activities to recruit people with the same aspirations to enter the community management and even directly participate in the development and guidance of the NFT mystery box community.

Mystery box Developer Community

The mystery box developer community welcomes developers to join the development team, so as to get first-hand information as well as quickly develop and launch various projects.

The mystery box platform will gradually open up the coding function and provide more interfaces to the outside so that more people can participate in the development.

According to the rules of the mystery box platform, developers can add their own mystery box projects on the platform and all newly added mystery boxes can be swapped and auctioned like signed mystery boxes.

Core Technologies

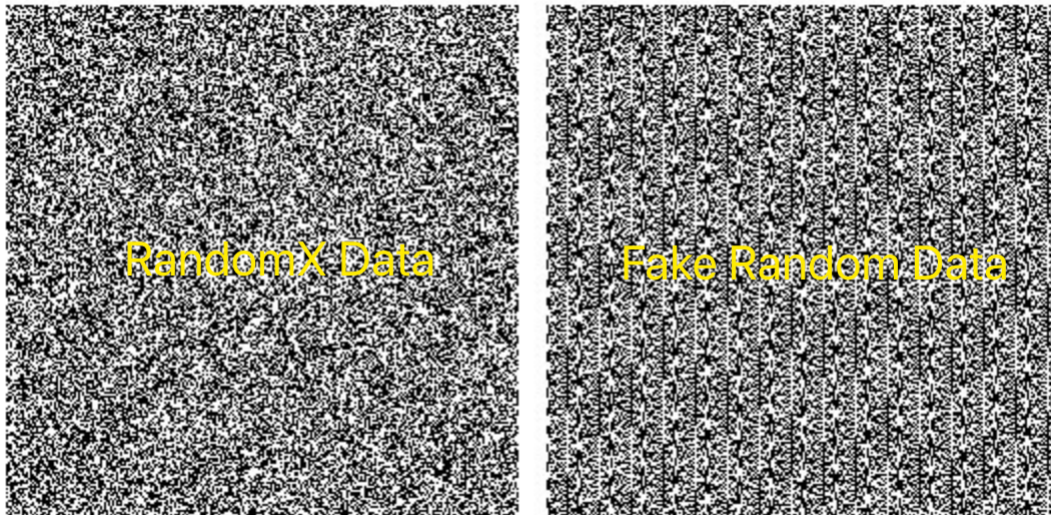## Smart contract for NFT decentralized transactions

The NFT mystery box swap platform adopts smart contracts to make all transactions open and transparent.

Through the automatic operation of multi-node smart contracts, the node consensus of the entire network is obtained, and the final result is generated. There is no personnel involved in the whole process, which completely eliminates the possibility of cheating in the mystery box transactions, providing everyone with the fairest and most just and open swap platform.

The True Random Number of the Blockchain

The mystery box image is generated by use of random seeds generated by the blockchain smart contract RandomX. As a completely random blockchain random number, RandomX comes from the computer hardware noise of all users and the random numbers generated by atmospheric data noise and quantum generators. In random number generation, multiple different nodes provide data in a distributed manner, and finally reach a consensus on a random seed.

We completely abandon the known characteristics of Mersenne Twister currently used by the centralization as a random number generator, and realize the acquisition of real random seeds in the blockchain, so as to be just and fair to everyone.

RandomX Data   Fake Random Data

Economic Model

MBC generation

With "zero crowdfunding, zero allocation and zero pre-mining", all MBCs are generated by the user's purchase of mystery boxes.

The total amount of MBCs is 2.1 billion, accurate to 6 decimal places.

MBC's seigniorage is 5%. Each minting will additionally generate 5% MBCs to be owned by the development team.

The generation of MBCs involves three stages:

1. Initial NFT mystery box stage (MBCs generated only by purchase of mystery boxes, subject to a lock-up period)

The first 100 mystery boxes: Generate 10 times of MBCs: 99USDT generates 990MBC and the quantity of output at this stage is 99,000.

The 101st to 1000th mystery boxes: Generate 5 times of MBCs: 99USDT generates MBCs and the quantity of output at this stage is 445,500.

The 1001st to 10000th mystery boxes: Generate 2 times of MBCs: 99USDT generates 198MBCs and the quantity of output at this stage is 1,782,000.

The sales output of the initial NFT mystery box stage is 2,326,500 MBCs.

Total sales volume	Output multiples	MBC generation	Total value of USDT	Total value of MBC	USDT/MBC
100	10	99,000	9,900	99,000	10%
1000	5	445,500	99,000	544,500	18.18%
10000	2	1,782,000	990,000	2,326,500	42.55%

Of all MBCs generated by the initial NFT mystery boxes, will be credited immediately.

2. NFT mystery box sales stage (MBCs generated by purchase and swap)

Each mystery box generates the same amount of MBCs (99USDT generates 99MBCs)

Each NFT mystery box swap generates MBCs equal to 5% of the price of the NFT mystery box;

It lasts until all MBCs are generated.

3. NFT mystery box autonomy stage

Rules are determined to manage the NFT mystery box economy through the autonomous management of DAO.

MBC Consumption

The listing and auction of NFT mystery boxes on line will consume users' MBCs. The rules and proportions can be determined by voting through DAO.

The NFT community will regularly repurchase excessive duplicate mystery boxes on the market. Those repurchased NFT mystery boxes will be directly destroyed. The repurchase mechanism determines the final strategy through community voting.

NFT mystery box fragment collection mode: Users can exchange MBCs for mystery box fragments, which can be synthesized into NFT mystery boxes.

USDT Allocation Method

All USDTs are allocated proportionally, and the allocation method is as follows:

1. 15% is allocated to the copyright owner of the mystery box image;

2. 25% is used for market construction, community support, and operation consumption;

3. 5% is used for the friend invitation mechanism of the MBC platform

4. 35% is owned by the community, distributed and operated by the community, and used for value-added operations such as mystery box repurchase and marketing in exchanges.

5. 20% belongs to the development team, and is used for continuous development and upgrade.

Roadmap and Planning

The First Stage

In May 2021, 1 to 3 mystery box NFTs will come one line and the NFT mystery box swap platform will put into operation;

By the end of June 2021, the goal of sales of 10,000 mystery boxes (990,000 USDT) in the initial NFT mystery box stage will be achieved;

In July and August of 2021, the NFT swap platform will be initially completed to prepare for future access to NFT asset exchange;

The Second stage

In September 2021, 10+ mystery boxes will come on line to enter the NFT mystery box sales stage;

In October 2021, sales of 2,000,000 USDT is expected;

In October 2021, the mystery box listing function will be opened so that

anyone can list NFT mystery boxes on the platform based on relevant rules;

In November 2021, the DAO autonomous management will come on line;

From October to December 2021, the NFT swap platform will be designed and developed;

By the end of 2021, the NFT mystery box swap platform expects to achieve the sales of 3,000,000 USDT.

The Third stage

In January 2022, the NFT swap platform will come on line and put into operation;

In June 2022, the NFT swap platform expects to achieve the sales of 900,000 USDT;

By the end of 2022, the NFT mystery box swap platform expects to achieve the sales of 4,000,000 USDT;

In June 2022, the NFT swap platform expects to achieve the sales of 1,200,000 USDT.