



White paper **NIFTSY**

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Token Disclaimer: While a Token, by virtue of the p2p systems architecture, may be traded on DEX exchanges and/or other resources by any Project actor, a Token is not an investment, currency, security, commodity, nor is an exchange of Token an exchange of currency, securities and/or commodities and/or any other financial instrument (the process of exchanging such instrument), because the Token is an integral part of the Project, used in good faith by the actors of the Project to achieve an optimum level of transaction costs for those assets used by the actors of the Project through the Protocol and/or the Oracle and/or the Index. The token itself has no price unless it occurs in transactions between buyers and sellers, who are independent in their will and volition.

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General disclaimer: The project operates exclusively as a DAO and is subject only to generally accepted principles and norms of international law, morality and ethics, which means that all disputes and/or disagreements can only be solved by applying the principles of decentralisation and openness and only through voluntary proceedings.

And yes, this is only an alpha version of WP for now, as the full version will be available after 15.07.21. In particular, in this document we have not given a full description of tokenomics and important points like tokenisation of payment channels and ZK rollups. Therefore, all shortcomings to date are taken into account by the community in the bounty campaign and are being finalised by DAO NIFTSY as they become available.



Introduction

This document describes the NIFTSY project, which consists of four elements.

The main idea of the NIFTSY project is to create a system of interactions of decentralised systems (DAO, DeFi, DEX) through the tokenisation of non-fungible tokens (NFT) in first and higher level networks. Using decentralised models, NIFTSY creates objective metrics and an asset valuation system.

NIFTSY is based on common Web 3.0 trends:

- Self-nesting of heterogeneous top-level (applications, protocols, etc.) and low-level (blockchain solutions) objects/entities;
- User-driven openness and anonymity (the ability to monitor anonymous transactions in transaction scanners);
- Decentralization;
- Direct transfer of value without intermediaries;
- Equality of subject and object, etc.

This document will help even the untrained but inquisitive reader to become familiar with the architecture and interconnections of the three elements that make up the NIFTSY project. It reveals the main trends in the industry and provides a detailed description of each of the aspects.

In order to find additional information and evidence to support the points made here, a list of references is provided for each section/chapter. This also enhances the openness of the NIFTSY project.

The conclusions of the assessment of development trends are set out in the Lightpaper. The project website will suffice for general guidance.

Any comments or additions can be sent by email to info@niftsy.io and/or via our telegram channel at <https://t.me/niftsy>. We also have a bounty programme.



Key terms

- AI - Artificial Intelligence - is the property of intelligent systems to perform creative functions that are traditionally considered the prerogative of humans.
- NFT - a non-fungible token of any standard (ERC-721, ERC-998, ERC-1155 and others) created within any DRS.
- Second-order (tier) NFT - an NFT created as a result of a wrap transaction with any number of assets of any level of complexity.
- DeFi - decentralised finance.
- DEX - a decentralised exchange.
- DAO - decentralised autonomous organisation.
- IDO - initial DEX offering of tokens.
- IoT - Internet of things - a concept of data networking between physical objects ("things") equipped with built-in means and technologies for interacting with each other or with the external environment.
- P2P - a peer-to-peer or peer-to-peer network based on equality of participants. Each node (peer) in a peer-to-peer network is both a client and a server.
- Anti-fraud - a system designed to evaluate financial and non-financial events (card transactions, user actions, transactions with loyalty points, etc.) to determine whether they are suspicious from the fraudulent aspect and offer recommendations for further processing.
- Airdrop - A cryptocurrency or coin token distribution to multiple wallet addresses, usually for free or for fulfilling simple conditions
- Derivative - A derivative financial instrument.
- DDS - decentralised and/or distributed networks (blockchain, tangle, dlt and others).
- Index - the part of the Project that represents a decentralised index as a quantitative measure of the market.
- Crosschain - The ability of parties to exchange data between different blockchains.
- Marketplace - A trading platform.
- Oracle - the part of the Project that autonomously analyses assets created using NFT in some way.
- Protocol - the part of the Project responsible for formalising the creation, circulation and use of assets via NFT.
- Project - DAO NIFTSY; the totality of all the elements: Protocol, Index Oracle and Token.
- Token - the information technology asset of the Project.



Industry (market) analysis and NIFTSY's place in it

Since NIFTSY (hereinafter also referred to as the Project) is initially built at the intersection of several markets: DeFi, NFT, DAO, DEX and has the crosschain feature, we will try to cover all segments very briefly and share the conclusions why we believe NIFTSY is not just a competitive product, but also a promising global solution for further Web 3.0 evolution in the next 5-10 years.

This section is primarily intended for those who are familiar with the markets described and want a brief but comprehensive analysis to understand the trends within which the Project originated and evolved.

Figures and facts

Let us start by segmenting the industry. According to the approach we have developed, the complex p2p solutions market will evolve over the next 5-10 years primarily in DAO and DEX integration: this will be done both by moving offline entities to online entities (tokenisation) and back; and by directly interacting crypto-asset markets with fiat and other markets, spheres via -developed gateways.

The pilot implementation of the first trend was the creation of the ICO market, from which the DeFi market was born, which from 2017 to 2021 showed staggering growth in a variety of indicators: from the number of services created, to capitalisation and the total number of users (which, however, is still small, which proves further potential for development).

Between 2020 and 2021, the first large-scale DeFi integrations with NFT models began. Here are some simple but detailed examples:

Uniswap - integration with liquidity protocol in version 3.0;

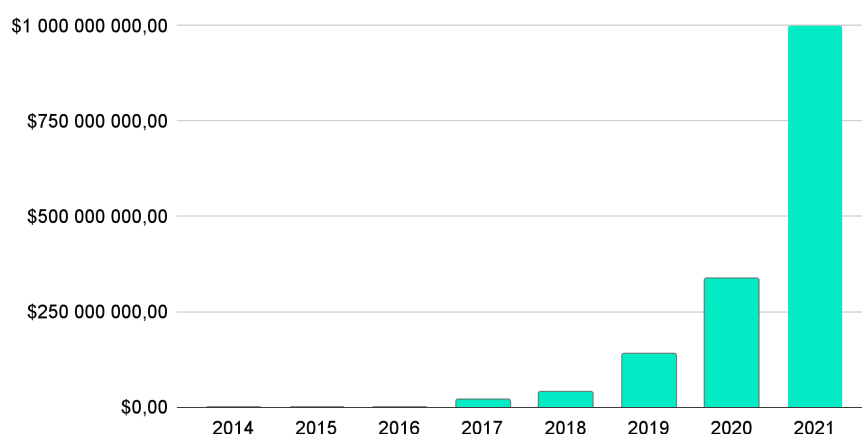
YFI - insurance policy in the form of a non-interchangeable token;

AAVE - creation of a collateral drive via NFT.

Why does this happen?

One obvious answer to this question is precisely in the growth of both DeFi and NFT markets:

NFT market capitalisation: averages from NIFTSY meta-analysis



That is, there are so many ERC-20 and other tokens (ERC-223, ERC-777, EOS-21, etc.) within the DeFi market that their aggregation via NFT is necessary. The point is



that one listing of ERC- and similar tokens can take up quite a lot of space: ERC-20, 223, 777, 721, 998, 1155, 1400, 1410, 1594, 1643, 1644, 884, 1404, 1450, and then there are TRC-20, ST-20, DS-standard, R-standard, S3, Atomic-DSS, BEP-2, BEP-7, EOS-21, TZIP, OEP-4, 5, 506, QRC-20, VIP-1801, VIP-181... and many others, each of which can be further categorized: interchangeable and non-interchangeable token. And then gradate by functionality: utility token and non-utility token (this includes not only security). And then another, and another, and another... So NIFTSY actually creates a tool to unify the aggregation of tokens based on one important criterion: security, which means the **demand** for the asset (asset group) in the market. The rule is simple: centralisation is a last resort, unification is necessary. And herein lies several useful functions, which NFT-implementations realise at the same time:

1. By **wrapping** liquidity tokens (LP-tokens) in NFT, one can eliminate various liquidity attacks, which have literally become the scourge of the DeFi market: just think of cases of so-called vampire mining. Given the architectural features of the PoS-family, such attacks will continue to evolve, both quantitatively and qualitatively, so now is the time to think about eliminating them at the core system level: without protocols it is unlikely. Especially without lower level protocols.
2. **An important aspect is the fact that NFT allows the creation of ETFs (exchange traded funds)** as well as simple units. This approach is useful for different groups of investors at the same time: for beginners, it helps to find among thousands of created projects those in which you can invest without losing all your investment when the asset falls: for example, by creating a collateral NFT, which includes BTC, ETH and tokens on different platforms. It is easy to segment services, assets, etc., and select the ones that the user needs. Thus, by assembling integrations of VR/AR/MR/XR and blockchain solutions (such as Decentraland with a native MANA token), one can get a contribution to a segment without complex primary search evaluation and/or analysis approaches. For professional investors, however, this approach allows for a toolkit of asset exchanges without multidimensional swap transactions, where not only asset transfers themselves need to be unified, but also asset issuance standards: That is, any fund can acquire a set of ERC-20, ERC-721, ERC-998 tokens, for example, and with them bundled WBTC and other native coins of different blockchains wrapped in the Ether network, or in any other network where tokenization through any entities is possible: tokens, patterns (patterns), etc. n., by means of primitive smart contracts. Without any unnecessary intermediary entities and/or legal entities.
3. Finally, **NFTs with a uniform roll-up and roll-down mode** ([wrap](#)/unwrap model - WUM) provide the ability not only to tokenize any unique entities around DAO/DEX, but also to do so according to certain rules. Thus, a decentralized, and thus - conditionally independent, tool of external certification of the same DAOs is formed due to the network security of the initial collateral value (see Cases below).

However, p2p-economy today contains an almost unlimited number of possibilities, so let's try to consider it from another angle: through integration of NIFTSY as a Protocol.



Possible implementations of NIFTSY

Looking at the market as a whole, the following interaction segments are worth highlighting for the protocol part of NIFTSY to be implemented first (MVP – March–April 2021, Alfa – May–July 2021):

1. **Marketplaces** (OpenSea, Rarible, NFT stars and others):
 - a. On one side, the implementation points of the Protocol; on the other side, the b2b buyers of wrapped and other complex NFT products. That is, for the Project and the Protocol, the marketplaces are the points of retail sale of NFT created with the Protocol.
 - b. Several cases are possible. Here is one of them: the holder of an NFT pledges a digital asset inside a newly created NFT of the second order, which serves as a guaranteed unburnable value of the NFT for any other holder of that asset (this creates a secured balance at a price: Floor Price).
 - c. The presence of a guaranteed base value defined as Floor Price increases buyer interest in the asset: anything can fall to 0, but if the asset contains minimal backing it is much better than an asset with no backing. In addition, in the second stage, there is the Oracle, which gives an independent valuation of assets of any complexity already in the first stage – **WUM**.
 - d. The author/owner/other person at the time of NFT circulation lays down the mechanics of increasing the base value of the NFT at certain events (transactions, drops, etc.) to increase the attractiveness of trading their NFT: and here the Protocol works together with the utilitarian functionality of the NIFTSY Token.
2. **Protocols** (NFTx, NFT20, NFT, DoDoNFT, etc.):
 - a. Firstly, the services used in the oracle part of the Project, i.e. the data providers for the Protocol, are just different protocols, blockchain solutions, oracles of particular types, etc.;
 - b. Second, embedded elements of next-level protocols within the Project: i.e. the Protocol is built at the L1 level, but it is possible to extend its functionality by the L2 level, e.g. through Polygon implementation.
3. **NFT creation platforms**, including – lower level (L0/L1):
 - a. First of all – NFT providers for collateral;
 - b. Asset Consumers, for whom the Protocol is a zero-check on pledged NFTs of any order of crypto-assets.
 - c. Thus, the Protocol serves as one way not just to create NFTs, but also to verify automatically at the expense of the presence/absence of the pledged portion at the same time.
4. **NFT Launchpad Marketplace**:
 - a. The Protocol can be used to drop tokens of any format, as long as they have an NFT wrapper.
 - b. IDO Algorithm via NFT:
 - i. A startup (DAO) issues a set of different types of NFTs;
 - ii. Stacks its project ERC/BEP-20/etc tokens into the NFT. (Example: 100/500/1000/5000 etc. tokens) format;
 - iii. Next – defines the cost for the NFT;



- iv. Finally - describes the NFT rollout conditions: let's say it could be by time - after 1 week / after and/or by a certain Ethereum/Bitcoin/BSC/etc block height. In addition, the conditions can be not only in the time range, but also in any quantitative or event range.
- v. Once NFT is deployed, the counterparty (IDO participant) receives the amount of its ERC-20 and/or other interchangeable tokens into a wallet (account).

5. NFT valuation markets, analytical services:

- a. The protocol (coupled with Oracle and Index) allows to bring the determination of the exact value of NFT based on complex analytical tools to the desired accuracy, as:
 - i. there is an initial value of the underlying intrinsic value;
 - ii. a coefficient / multiplier of the underlying value of any order can also be introduced;
 - iii. hence - it is not difficult to determine the value of a token, which in turn can be supported by a liquidity pool and/or other Floor Price parameters;
 - iv. finally, when Oracle is connected, we also get algorithms for estimating the market value of NFT outside of the subjects that require trust;

6. DeFi:

- a. Of course, there are already cases today of using NFT as a trading object, collateral, deposit, etc. But it is only recently that liquidity transfer through the NFT segment has become possible.
- b. In fact, this means that in the next 1-3 years we will get a new type of asset DeFi, where NFT already contains collateral, while the collateral itself can be as complex as desired, which means a high entry threshold, whereas the Protocol makes entry into the market generally available.

7. Online gaming (p2p - primarily):

- a. The 1155 and 998 token formats were originally created for the gaming industry.
- b. The collateral value of gaming assets is a subject of constant debate and the Protocol can address this issue in two ways:
 - i. Through Oracle (see below);
 - ii. Directly - by providing a lower threshold price.
- c. It is also possible to create a multi-collateral drive (Multi-collateral) within the initial NFT, where each asset would be allocated to the part of the drive that corresponds to a particular game (series of games).

8. Meta-universes:

- a. This category is not just something between augmented (augmented/mixed) reality, but it's all about online worlds within games, VR spaces, etc.
- b. Example: if you have land, water, and the right seeds, you can grow a tree from which you can then harvest digital assets, etc. But if that tree is only available within one world, the value of its seeds will be low, while the difficulty of accessibility from different worlds will on the contrary make that VR/AR/MR-object with increased value.
- c. Again, it is the Multi-collateral Protocol that is an important property here.



9. **The cybersport market:**

- a. One of the possible contenders for the trillion-dollar markets.
- b. Already in it the artifacts are valuable: e.g. the conditional "weapon" increases the power with the increase of the intrinsic basic value due to long storage times, number of buying and selling transactions, developed trades, etc.
- c. On the other hand the issue of fan-tokens is also possible, where again there is a mixture of virtual worlds and real reality.
- d. A separate item of possible application of the Protocol is wrapping through NFT, where **WUM** could be applied to prizes, cups and other bonuses; further development is possible, say, through adding economic properties by multiplying the value of the event.
- e. Of course, event tickets and gift vouchers that increase in value by the date of the event, and more, are also marketable via the protocol.

10. **Classic Sports Marketplace:**

- a. Playing cards for favourite players: the football industry is famous for this at the moment, but the time is not far off when all sports will be digitised to some degree and NFT will clearly play a role here.
 - b. Decentralised sports betting is another and big area of discussion.
11. The augmented (AR) and virtual (VR) reality market itself, as well as new species (XR/MR) and the acquisition of digital assets as a result of certain acts within the virtual space:
- a. Perhaps the most important and obvious example at the same time is the programmable reward stash. This is partly illustrated by First Player Standby: in fact, the Project is Oasis in this perspective.
 - b. Quests: the keys and clues that are hidden in the room and anything that can be wrapped up in digital entities are also easily implemented using the Protocol.
 - c. Puzzles: the correct answers release pieces of internal collateral to the benefit of the player and/or those they play for. The Protocol is thus the first part of the integration of the games industry into everyday life.

12. **Music marketplace:**

- a. Actually - NFT music: songs / tunes / beats with time of release and customizable terms of authorship. With planned collaboration with projects such as SharpShark, the Project can participate in the development of the copyright and related rights industry at any level.
- b. Automating the process of storing and accessing mp3/wav and other files, as well as sharing ownership of those files.
- c. Use of music NFT in meta-universes: while monetising each component.

13. **Real estate market:**

- a. Unlocking the original NFT (ownership) when a certain underlying collateral value is reached - an excellent substitute for mortgage lending and simultaneously the genesis for a new market for real estate acquisition outside the banking environment.
- b. Lease via smart keys, where each access is NFT, limited in time/number of uses, as well as extension of easement rights.

14. **Classic finance market:**

- a. Bonds as NFTs with pledged collateral.



- b. Insurance: NFT as insurance contract/digital policy and any other contract. Again: minimum collateral must be from the first insurance premium.
- c. Portfolio/index transactions: inclusion in NFT of a number of assets that move through wallets according to programmed conditions, but in a fully open and decentralised way (legal issues are a separate discussion point).
- d. Digital gift cards: with increasing time deposits as a basis for new loyalty programme mechanics.
- e. Dynamically changeable NFT, linked to a goal. Example: a black and white picture of a car, which becomes coloured as the necessary amount on the balance approaches accumulation: let's say by accumulation on a deposit, a single team/family/other group liquidity pool.
- f. Automatic access to digital vaults via NFT as a key, etc. At the same time, due to the transactional reputation generated, the vault itself can become collateral.

15. **NFT lottery market:**

- a. If the lottery budget is placed inside Multi-collateral, the following algorithm begins to work:
 - i. A crypto-asset such as DAI is deposited inside the NFT Collateral, within this NFT there are many other NFTs that participate in the draw of this pool, when an event occurs, funds from the Collateral are distributed to the holder's account. At the same time, the tickets themselves are created as NFTs, making the lotteries completely transparent. An important issue here is the mechanics of determining random numbers, but the issue is beyond the scope of WP.
- b. The budget of the lottery is outside the Pledge:
 - i. A promotional pool is created from ETH, BNB, ERC/BEP-20 (project tokens, stablecoins, LP tokens) and/or others;
 - ii. Only the NIFTSY smart contract has access to the pool, which upon the occurrence of an event (e.g. a specific date of the draw): selects a certain number of random NFTs and sends the content of the pool to the specified addresses.

16. **Other markets.**

There are other players and whole segments that can benefit from the Protocol, but the Protocol is a small part of the Project, so let's try to describe it in full, revealing also the main aspects of Oracle and the Index, looking at the Cases and the Project's development prospects in relation to them.



Protocol. Oracle. Index

Protocol

The first problem the Project has to solve is the objectivity of the collateral data. This part is handled by the Protocol - i.e. formalising within the onchain entities of **any blockchain by means of NFT mechanics**.

Let's remember **Collateralised debt obligations** (CDOs) - collateralised debt obligations: it was these and credit default swaps (CDSs) that ignited the flames of the 2007-2009 crisis. Why?

Most importantly because it was not clear what was behind these "securities", what was behind their ratings - even if they were the highest, i.e. AAA, what was the effect of the floating rates on which the loans were based, on which these CDOs were in turn based? What happened in the USA in 2008 may well happen in Russia 2021 and dozens of other countries with different levels of economies. But why exactly?

Because **no collateralisation mechanisms have yet been created** for complex financial instruments. Part of their principles, however, are inherent in the established, though still "raw", DeFi market. Let us try to clarify and thereby reveal the key purpose of NIFTSY and its token.

NFT as a new order ETF and a brief history of NIFTSY

First, what is an ETF? An exchange-traded fund (ETF) is an index fund whose units (shares) are traded on an exchange. That is, it's almost a unit, but "unlike an index mutual fund, ETF shares can be handled in the same way as ordinary shares in exchange-traded trading.

Why would a crypto market need this? The answers are several:

- First, it's far more convenient for newcomers to take **off-the-shelf portfolios** (discussed below) than to build their own from scratch, especially - unless we're talking about the top 10 currencies/tokens. Just look at the history of crypto-market from 2009 (1 asset) till 2021 (more than 7000 assets, not including derivatives), to understand that such a model will be demanded.
- Second, for professional investors, portfolio sharing, diversification, objective asset valuation are important and here diversity is also confusing. But most importantly, it does not always allow for **a quick and accurate valuation of those very assets**. Another problem is that it makes it difficult to exchange portfolios, to disclose them or, conversely, to remain anonymous. OTC transactions require a collateral guarantor, while an ETF created via NFT can be traded solely through Protocol.
- Thirdly, the evolution of p2p systems is direct evidence that the Pareto rule works: 80% of the activity is created by 20% of the players. At least initially. And here it is important **to avoid manipulation**: the Protocol provides exactly this possibility, and Oracle and the Index extend the functionality to a complete objective system of self-assessed assets.

The Protocol is the basis for next-order protocols: that is, while any blockchain solution is L0/L1 level, a protocol can lie in the L1/L2 plane and beyond. And here's what NIFTSY offers in this vein:

- First, **tokenisation of payment channels**: in this case, it doesn't matter whether we are looking at any specific implementations (Plasma,



Lighting Network) or their aggregations (Plasma + ZK-rollups, bridges of different levels), whether we take a single blockchain or multi-chain integration, but the important thing is that the exit from the main chain can and should be used, providing liquidity to both the channel itself (between the parties) and the assets wrapped through it (before closing the channel). In this case, the same mechanics of the cross-chain Protocol apply as when the Project links the offline economy with online projects.

- Secondly, the Protocol does not work by itself, but together with other elements **serves as a decentralised on-chain cross market price** discovery feature of any blockchain solution. That is, whether you make a secured fiat deposit and exchange it for an equal amount of tokens and/or coins of different order in the p2p-economy, or exchange equivalent assets wrapped in NFT in different blockchains, the mechanics of the Protocol will be the same, and thus verifiable for each participant of the transaction.
- Third, the Protocol is **a normaliser of relationships between different** participants in DEX, DAO (DeFi) markets: regardless of which SaO (subject-object) that participant is. For this reason, the Project can be integrated not only with classical p2p-markets, but also, for example, with IoT-solutions, where the main actors are programmable devices, hardware evaluation scripts or (semi) autonomous AI-systems that provide direct interaction between different IoT-elements.
- Fourth, the Protocol actually creates **the possibility of liquidity aggregation** through cross-chain transfer of NFT ownership: b2bx, 1inch and similar liquidity aggregators could be considered the closest analogue, but with the difference that they represent the first generation of this evolutionary branch of the DAO & DEX sphere.

However, the possibilities of the Protocol do not end there. Let's try to describe them very briefly, but in detail from a general development perspective.

On the one hand, the trend towards the integration of DeFi and NFT is clear today, because interchangeable tokens (ERC-20, TRC-20, BIP-20, etc.) can be exchanged at different levels: atomic swaps, if we are talking about blockchain solutions (DCR-LTC and others); via smart protocols like Bancor; directly via DEX & DAO solutions, the first and simplest implementation of which is DeFi. On the other hand, it is thanks to NFT wrappers that exchanges between different blockchain solutions (hereafter also referred to as DDS: decentralised and/or distributed systems) are possible without resorting to bridges or even more complex implementations. Examples of this aspect - Uniswap, YFI.Finance, AAVE - are above.

But at the same time another important aspect arises - the problems of the NFT market itself. Here are just a few of them:

- **Firstly**, the NFT market was initially understood too narrowly, not at the theoretical level where there were formats like ERC-721, ERC-998, ERC-1050 and many others that are constantly evolving, but precisely at the application level, as the NFT niches that became in demand between 2014 and 2021 were incredibly small: the gaming industry, digital art, avatarisation of off-line. But even these niches were able to contribute quite solid capitalisation to the market: both in terms of average check per NFT and maximum allowable parameters as well as project totals.



- **Second, NFTs are in many ways vulnerable to attack not at the level of protocols and DDS in general**, but at the level of the ultimate acquirer - the entity: starting with the fact that visible ID (identifier) substitution of an entity attached to an NFT is possible and even if it also exists online (NFT phishing), not to mention complex off-line integrations, to the fact that it is quite difficult for a simple layman, just entering the industry, to determine the price of a non-fungible token.
- **Thirdly**, NFT also has other childhood diseases inherent to any innovation project in its infancy:
 - Low network capacity;
 - Shortage of liquidity in the markets;
 - Others.

As NIFTSY's CTO, M. Szykh, correctly and accurately described, "I think the generic features of the protocol are:

1. Onchain. All events from the outside world are either cases of using the Protocol, or an OTHER layer protocol built on top of our onchain-core.
2. Everything about NFT".

That is, everything that is done outside the Protocol (at a level below, above and/or several levels above) is either a new level protocol (L0, L2, L3), or oracles that somehow interact with them, or some kind of third entity.

That said, there are two main types of oracles:

1. Those that link the blockchain to the outside world: chain.link is an example of this.
2. Those that analyse the blockchain and produce a corpus of data on it, and already that data is used by other blockchain solutions, decentralised ones included: chainalytics.com.

In this case, we are talking about the first and second point at once, i.e. the third type of Oracle - synthetic: on the one hand - it has to analyse all the data coming through the Protocol, and on the other hand - to link the Protocol with the outside world.

That is why a study of this market and its segments was conducted in November-December 2020 ([study #01](#) and [study #02](#)), and then - in the spring of 2021 - the overall architecture of NIFTSY was developed, and then the MVP, presented at the Hackathon of the largest crypto exchange, [Binance](#), among others.

It is for this reason that, in answer to the question, "what problems does the Protocol solve?" - was the team's joint response that the first and main problem being solved is securing NFT by putting various digital, and in the future any tokenised NOT digital, assets inside a Container/Collateral (Collateral), or collateral drive. This could be wrapped bitcoin (wBTC and others), ERC-20 and/or BIP-20 tokens, cryptocurrencies of various types, etc. The Protocol is initially built on the Ethereum blockchain (including via the L2 layer - e.g. Polygon) and BSC, but in the future (see Roadmap) it is planned to create implementations on Flow, WAX, Solana, Polkadot, Cosmos, Avalanche and other DRS, because we are deeply convinced cross-chain is the future of all decentralised and distributed systems. Exactly the same applies to second and subsequent layer solutions.

Let's summarise the conclusions about the Protocol:

1. It allows the unification of WUM;



2. Has a simple or multi-collateral (Multi-collateral);
3. Contains a static (nonrefillable) and a dynamic storage part;
4. For the average user - serves as a zero-level evaluation of NFT of any order (as well as any derivatives);
5. For b2b-players - provides a mechanism for dealing with liquidity wrapped in NFT of any order on the one hand; on the other hand - provides a clear mechanism for creating NFT (is a b2b-supplier of NFT);
6. For funds (pension, insurance, investment, hedge, etc.) acts as an objective asset valuation tool where any fund client receives NFT unwrapped on an event/date and always knows exactly the primary collateral level of that NFT.

But the Protocol could not and should not have solved all the problems of the NFT market and its links with DeFi and other industries. This is how Oracle came about.

Oracle

In the first stage (before more than 1,000,000 users are connected to the Protocol), Oracle is closed and the result of its checks can only be made available externally by [ZK-mechanics](#). But what exactly does Oracle do?

If the Protocol addresses the issue of unification based on the principle: "centralisation is a last resort, unification is useful", then Oracle focuses on the gradual creation of a decentralised system of evaluation and analysis of second-order NFT entities without resorting to a single, trusted, person/service.

To this end, NIFTSY applies a "simple to complex" transition system: in the first stage, scoring - the evaluation of assets on the basis of quantitative and temporal parameters - is developed. At the second stage, voting by various actors of Web 3.0 systems (smart contracts, people, AI, owners of various DDS super-nodes, etc.) is added, i.e. a classic anti-fraud is born. Finally, the last one is a stage of implementing transactional reputation of assets from the moment of their genesis to the end of their existence (burning, sending to "eternal" addresses, etc.) and here already AI-analysis-synthesis methodology works, which is impossible without big data (why is there a step-by-step transition from scoring to classic anti-fraud and only from it to AI-aspect) and work through ZK-mechanics initially.

Let's briefly describe the principles of scoring system and anti-fraud system, created on its basis, because on the first stage (before full release and getting of clients base of more than 1 000 000 people) all the results of system are transferred to Protocol and external sources exclusively through ZK-mechanics, as it is mentioned above. However, such data can be supplied by any other Oracle.

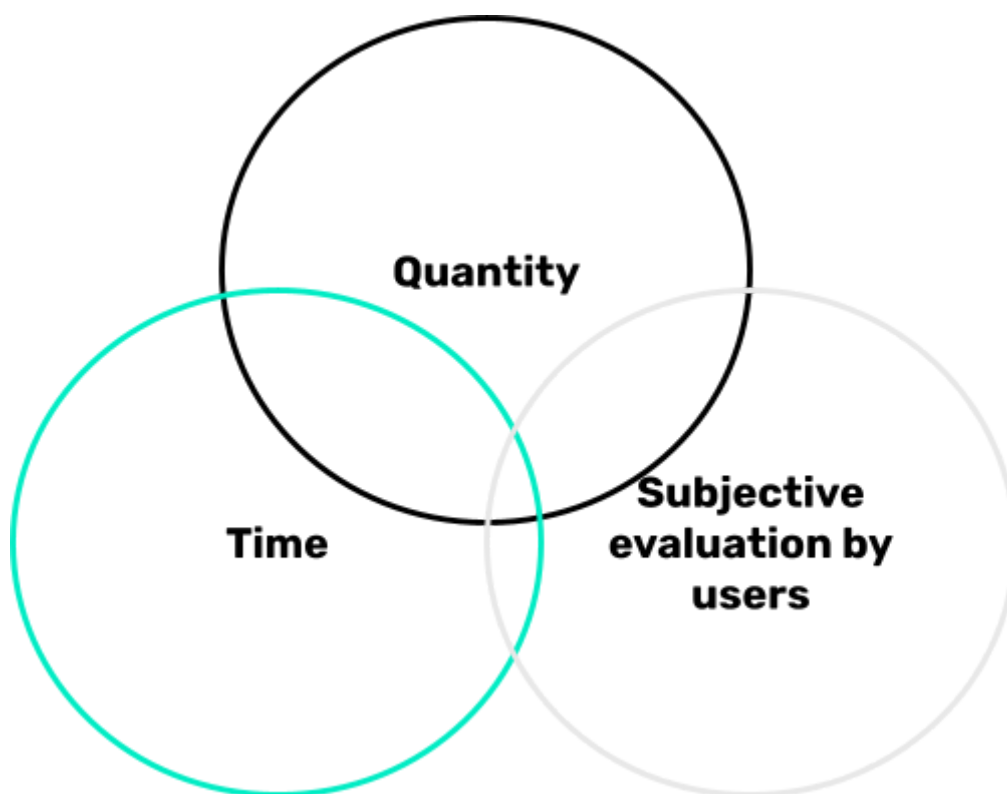
First, Oracle uses possible open sources:

1. DDS registers;
2. Open data from other oracles;
3. Statistical reports on markets;
4. Other data.

So what is the functionality of Oracle? First: the Oracle is based on a primitive model of transactional reputation, i.e.: quantitative criteria (number of assets within NFT, number of NFT shards; initial price of assets, etc.); then - temporal criteria (when NFT was created, when the invested asset was "created", what position it holds in general ratings, where it trades, what is liquidity, what is participation in DEX-, etc.. etc.); finally, and subjective criteria: analysis of Twitter & Reddit (hereafter



positive/negative criteria), etc.; analysis of social activity in official groups (if possible) or the most popular - TOP-10; analysis of search results (also plus/minus scores - next step).



So how will the Oracle help the Protocol to develop? There are as many as 10 areas of mutual primary interaction (so of course this list is open/not complete):

1. **Oracle makes it impossible** to use NFT for "dirty" activities outside local communities, i.e. locally - yes, the Protocol can be used by drug dealers and criminals of other kinds, just like any other tool, but once they go outside - their reputation is greatly reduced (and not by us, but automatically). So everything in this world can have negative consumption capabilities, from a kitchen knife (the most common tool of domestic crime) to TV, but in the end it all comes down to whether the tool was originally created for positive or negative activity.
2. Oracle allows for **an objective assessment of the market** and this is how the Index was born: the First Decentralized NFT Index, which evaluates not only the top projects but also their transactional reputations. In a single, quantified format. The Index, being quantitative, consists of the ratio of a number of different indicators, i.e. takes into account the quality of entities: NFT, initial assets, relationships of transaction participants, etc.
3. Oracle also makes it possible for users of the Protocol, whichever marketplace they enter through, to obtain objective information about the valuation of assets, without the direct involvement of the valuation entity (government agencies, banks, brokers, marketplaces themselves, etc.): **purely on the basis of primitive models**. It is this approach that allows scaling the level of Oracle virtually indefinitely: it is sufficient to comply with the requirements to unify the data provided.



4. In addition, Oracle has the potential **for secondary analytics**, e.g.: storing rarity NFTs through what happens most often? Or how to find DDS anomalies and turn them into NFTs? That is, Oracle becomes a big data provider in its own right.
5. Oracle allows exactly to search for anomalies of different order and thus serves formally as a protocol, but already in another sense - as a tool **for unification of markets**, industries, etc. Why is it needed? The simplest example is for there to be a single liquidity market where all participants of the process earn, not only those who use the most advanced practices of intercepting this very liquidity.
6. Oracle passes stages: scoring - classic anti-fraud - AI-anti-fraud and in the end - can become one of the tools not only for full analytics of NFT-market and related to it (point 4 above), but also a full DAO, where dependence on human-resource will be minimal and thus it will become a semi-autonomous tool for **integration of the Protocol**. Example: SaO connects to DAO - and starts to test the Protocol in one of the cases (here we develop an algorithm of implementation of such and continuous updating/addition: in standalone mode). Now there is a problem of centralised oracles and it obviously has to be solved sooner or later: the Project can offer today a conceptual answer to this burning question.
7. The oracle gives everyone the opportunity **to become an analyst**. And that is a separate and large stratum of development, should the Protocol suddenly reach the ceiling of evolution. Or, more precisely, when: whether you are a trader and a human or just a simple script responsible for the work of a simple IoT system sensor, you have access to the Protocol through Oracle: both inbound (data filling) and outbound (the actual analysis of data located in the Project's repository) operations.
8. One of the most important implications of creating Oracle is a **full-fledged ecosystem** for DeFi+DEX, DeFi+NFT, NFT+offline, etc. bundles. After all, every entity that is tokenised has to be evaluated somehow. When there is an evaluation format, it's easier than when you have to come up with new and new criteria time and time again.
9. Since Oracle is built on a transactional reputation model - it can be used by services for a wide variety of activities:
 - a. Conducting airdrop;
 - b. Authorization on DEX without KYC (by analyzing assets);
 - c. Ability to bequeath funds anonymously, etc.
10. For the digital (crypto) offshore, Oracle means analogue mechanisms:
 - a. Bank anti-fraud;
 - b. Anti-phishing services;
 - c. LLC performance analytics systems;
 - d. Creation of a unified database of NFT standards in different valuation profiles, etc.

Yet most importantly, the Oracle allows you to move on to another important stage - the Index. And here's why.



Index

An index is a numerical and/or alphabetic indicator of something. NIFTSY creates indicators from Index.Niftsy:

1. "Purity" of the NFT market;
2. The congestion of this market at the moment;
3. Demand;
4. Etc.

The index has three main roles:

1. Objective quantification of the market;
2. A tool for following the market;
3. A trading tool.

In doing so, the Index could be the first full-fledged decentralised solution, because:

1. The data will be derived from different sources autonomously;
2. The final version of Oracle - will be fully open (Protocol - open immediately);
3. Due to the implementation approach via primitive models - the general Index can be simplified/complicated almost infinitely (taking into account the costs of scaling);
4. The data provider can be any service: centralized, decentralized, distributed;
5. The index is not a derivative, but a stand-alone assessment tool.

As the manipulative practice regarding Bitcoin has shown in relation to the allegedly non-environmental nature of the Network (see link for details) - the decentralised world is subject to the same information attacks as the centralised world, but unlike the latter, it has more tools to combat fake news, unfounded accusations and other manipulations. Including by creating tools that work in an untrusted environment of any level (order).

Precisely for this reason, one of the results of the development of NIFTSY is the creation of a fully decentralised index, which independently of any third party gives results about the NFT market by means of one measurable parameter: or, in a product deployment, several measurable parameters. This provides not only a quantitative but also a qualitative assessment of the correlation between: assets, traders, derivatives and other entities.

This index is formed at the initial stage in the same way as Oracle, i.e. through ZK-mechanics, which will then be opened to the community as both a common base and assembled evaluation algorithms.

Let us now try to consider the Project Architecture in its entirety and move on to the basic linking element of all three components, the Token.



The architecture of the Project and the role of the Token

So, the Architecture of the Project is as follows:

Index: decentralised, quantitative market assessment

Oracle: scoring, classical and AI-anti-fraud on NFT assessments and their links

Protocol: formalising the handling of NFT entities

It is important to note the following principles of model formation:

1. The links between Protocol - Oracle - Index are formed initially from the bottom up, but then the Project works from all three elements.
2. Oracle and Index can be created outside the Project, Protocol cannot.
3. All three entities are based on primitive transactional reputation models, i.e. they consider a) quantitative; b) temporal; c) subjective criteria.
4. All elements operate on the basis of openness, decentralisation and consider all entities as possible actors in the Project: scripts, AIs, users, etc.
5. All three entities interact with each other through the Token functionality, which is a necessary element of the Project ecosystem.

The features of the Token are discussed in more detail below.

DAO. Token. IDO

The Project team has long tried to do without Token inside the Project, but, as will be shown below, this cannot be done and the main reasons are three:

1. The use of native coins is either expensive (ETH, BTC, etc.), or ties to other consensus-specific complexities, which is little acceptable for a standalone non-zero (L0) level cross-chain solution. Yes, of course the



Token will be issued within a specific DDS, but by the fact that it will operate in a closed ecosystem, avoiding the problems of native coin blockchain solutions is possible.

2. The Token functionality is tied to the overall evolutionary model of the Project (see Roadmap), so replacing it with an even simpler entity is not possible.
3. Finally, it is the Token that enables the cross-chain operation of the Project, as it is also the unit of measurement for any other assets.

Here is the position of the Project CEO, A. Shedogubov, on this point:

- Firstly,
 - Tokens are blocked in the Collateral, hence the simple rule: less volume - higher price. Can we do without Tokens in this case? Yes, of course. But it immediately adds the possibility of universal transfer of NFTs created on different DDS.
 - Transactional growth of the Collateral price: hence the need for a native Token, which goes into Collateral, increasing the internal price through value appreciation. That is, the dynamic part of the drive can do without a Token, but then a separate authorisation for such transactions is needed, which is not always possible in all DDS.
 - The Token is also needed for royalty payments: the rule is simple - higher demand, higher price. In this case, it is the price of the underlying asset that is at stake, and the Token is a quick digital record-keeping option. Again, you can always opt out of the Token, complicating the model of behaviour.
- Secondly, the following approaches are also possible:
 - A "wrap" operation is followed by the purchase of a Token from the market, which on the one hand - reduces the supply, on the other - offers a universal mechanism for accounting for the turnover of funds.
 - Similarly - it is possible to offer (at the request of the Project actors) "unwrap" operations;
 - In addition, the Token can also be credited for transactions, when Collateral is topped up and royalties paid, as this has a positive effect on network effects within the Protocol;
 - But there is also an alternative approach: wrap and unwrap transactions can be charged in any assets, and a discount is given if the Token is used, as this reduces transaction and other network costs. At the same time, part of the Project's working capital can be used to buy the Token back from the market, which reduces the supply and thereby increases the value of that asset (but never guarantees an increase and/or decrease in price), without resorting to the common practice of burning, since the Token in the Project plays a purely functional role, not a role of some "fuel" (like gas in the Aether-ecosystem).
 - Finally, another way of development is to create a decentralised repository with packed NFTs that have a timelock period: these assets are used after DAO NIFTSY votes, so the Token can act as a



measure of the actor's conditional "weight" in the development of the Project and/or a specific part of it.

To summarise, the Protocol can be used to automate such actions:

Payment of royalties: e.g. to songwriters, photo-artists and other creative units, including non-subjects (say AI creating films, music or digital paintings).

1. **The distribution of commissions between the various parties** in the relationship, such as: exchanges - token holders - sellers and buyers - borrowers and others; producers and creators, etc. And while royalties are a contingent bonus, in the case of commissions, it is primarily a question of possible discounts for each party by optimising trading schemes (see Cases).
2. **Formalisation of the various collateral histories**, both within purely online entities and their connection to offline solutions.
3. **Rapid transfer of assets between different DDS**, including - at the expense of Token-only functionality.
4. Solving the problem of [Impermanent Loss Explained](#).
5. Objective (quantitative) with valuation of assets in derivatives through Oracle's network commission.
6. Other.

As we can see, Token plays a key role in the project, but also - can be replaced through complex WUM and other models. Therefore, let us briefly consider it as an element of the Project, in order to then move on to a full description of DAO NIFTSY and the initial decentralised asset allocation of this autonomous, decentralised organisation.

The token as a linking element in the project

So, let's compile the Token features available in the Protocol, starting with the alpha version, as well as those available in the Project at its full release:

1. Participation in royalty payments to any actors: payment on any complex transactions in the subject-object model;
2. WUM mechanics: dynamic part of the drive, transaction processing;
3. Second- and subsequent-order NFT cross-chain exchange: features - discount and netting rate;
4. Unification of token standards through a single wrapper format;
5. Facilitation and objectification tool for derivatives: valuation through turnover / pledge analysis of tokens;
6. Token bonus model in the development of the Project ecosystem: airprops, bounty programs, etc.

The Token also has a major role - it connects Protocol, Oracle, Index into a single DAO NIFTSY: i.e. you can use each element individually as well as in integrations, but in the latter case, the Token is the only way to connect.

It is important to note that the Token itself has no initial price: it is determined by counterparties, including - through an IDO, where the initial price is formed by determining the price of the Token by the offering venue, the final buyer and the seller,



as the Token is an entity open to distribution and is only controlled by the DAO until it enters the public market.

IDO

The IDO dates are set out on the Project website, as well as in the Documentation. IDO is a process of initial, decentralised Token placement, which aims to distribute Tokens to the Project community through the following mechanics:

- Airdrop - providing Tokens to active p2p community members;
- Bounty Program - provision of Tokens to active members of the Project;
- Direct purchase and sale on independent DEX-platforms of different levels, where the Tokens are offered free of charge for the initial provision of all persons (actors) wishing to use their functionality;
- Provision of Tokens to Initial Contributors - provision of Tokens to individuals/groups who have accepted the Initial Token Placement Agreement, having independently determined the value and price of the Tokens for their activities.

Disclaimers:

- Token Disclaimer: While a Token, due to the architecture of p2p systems, may be traded on DEX exchanges and/or other resources by any Project actor, a Token is not an investment, currency, security, commodity, nor is an exchange of Token an exchange of currency, securities and/or commodities and/or any other financial instrument (the exchange process of such instrument), because the Token is an integral part of the Project, used in good faith by the actors of the Project to achieve an optimum level of transaction costs for those assets used by the actors of the Project through the Protocol and/or the Oracle and/or the Index. The token itself has no price unless it occurs in transactions between buyers and sellers, who are independent in their will and volition.
- Disclosure on smart contracts: The Project shall not be liable for any losses (real damages and/or lost profits) arising out of the operation of smart contracts of the Project itself and/or its constituent elements, and/or other related smart contracts, or the inability to use them, as it applies these technologies "as is", i.e. through third party services under various open source licences.
- Technology disclaimer in general: The Project accepts no responsibility for the inoperability of the Site and/or the Project and/or the Protocol and/or the Oracle and/or the Index as these technologies are all based on open source licenses, i.e. are provided 'as is'.
- Content Disclaimer: The Project shall not be responsible for any links and/or other materials posted on the Site, the Application and/or even more so on third party resources if such materials (links/content/other) are in any way dependent on a third party (hosting provider, domain name registrar, blog platform administrator, social network administrator, etc.).
- Jurisdiction disclaimer: Those citizens (residents) who may not acquire Token unless authorized by relevant regulator (SEC/MAS/NBK/etc.) must apply to relevant regulator with written request and obtain same written



approval for Token acquisition, after that - provide such approval to counterparty for Token transaction and only after prior approval from counterparty - acquire Token in free (public) market: violation of this condition will automatically recognize violating party of this condition

- General disclaimer: The project operates exclusively as a DAO and is only subject to the generally accepted principles and norms of international law, morality and ethics, which means that all disputes and/or disagreements can only be solved by applying the principles of decentralisation and openness and only through voluntary proceedings.

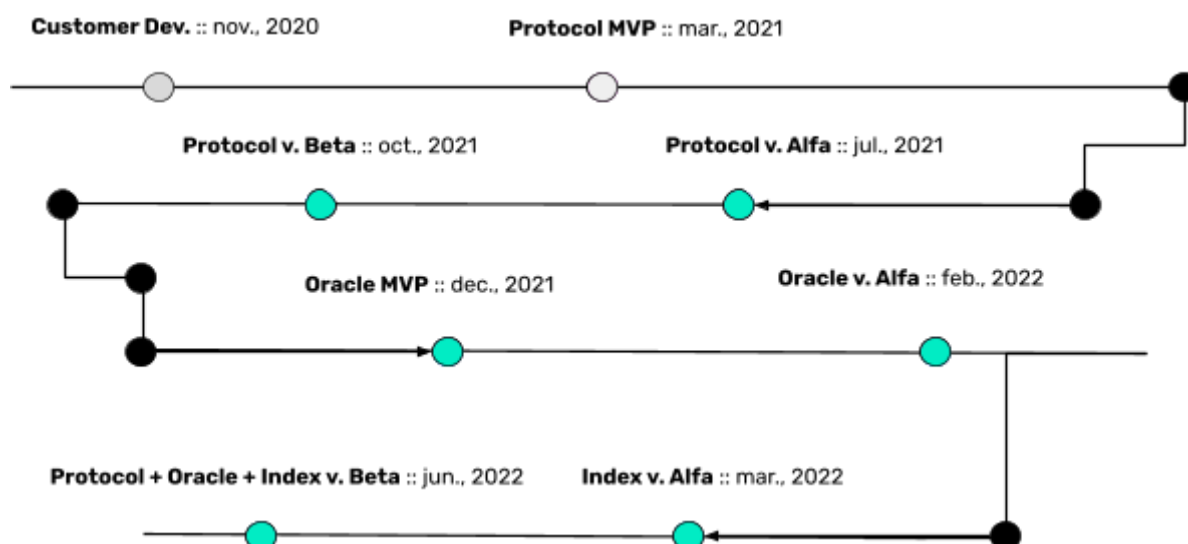
IDO is the third stage of project development: the first is Customer Development, the second is MVP and the third is the alpha version of the Protocol. But this, of course, is not the end of the Project's evolution. Let's take a closer look at it.

The entire output of NIFTSY will be distributed as follows:

- 4% (20,000,000 NIFTSY) allocated to a round for family and friends;
- 12% (60,000,000 NIFTSY) will go to the team and advisers;
- 18% (NIFTSY 90,000,000) will be used for the seed round;
- 24% (NIFTSY 120,000,000) will be used for the private equity round;
- 2% (NIFTSY 10,000,000) will be used for the IDO itself;
- 5% (25,000,000 NIFTSY) will go to partnerships;
- 4% (20,000,000 NIFTSY) marketing;
- 10% (50,000,000 NIFTSY) total liquidity pool for the Project;
- 20% (NIFTSY 100.000.000) ecosystem development;
- 1% (5,000,000 NIFTSY) unavoidable reserve.



Roadmap



Above is a general road map. Let us try to look at it in more detail:

So, from November 2020 to February 2021, DAO NIFTSY was formed and work on NFT market research began.

In March, a minimal product was made and the team participated in the Binance hackathon.

Currently, an Alpha version of the protocol is being worked on (until July 2021).

After that, it is planned to refine the functionality of the Protocol and expand the Token's functions, including - in connection with the IDO in August-September.

Next, the development of other elements of the Project starts: Oracle and Index, which together with the Protocol represent a closed ecosystem of work with NFT and their accounting/analysis system.

Finally, the release of the full beta version of the Project is expected in June 2022.

During development, we also take into account the gradual integration of the Protocol and other elements of the Project into the various LDCs, as follows:

The initial version of the Protocol is built on EVM-enabled blockchains (Ethereum, BSC and others).

This is followed by integration with L2-level solutions such as Polygon and others.

And then there is gradual integration with other DDS. At the time of writing (in alphabetical order): first turn - Algorand, Avalanche, Cardano, Cosmos, Flow, Polkadot, Solana, Zilliqa, Wax. Second line - IoTa, Hedera, Nem, Neo, Ontology, Qtum, Stellar, Tron, etc.

Finally, we are guided by the following principles in implementing the said Roadmap:

Initial implementation dates are written down, if the project attracts more crowdfunding for development, the specified dates can be shifted towards better positions.

It all depends on which projects integrate the Protocol and/or are willing to invest their own energy, time and other resources into its development.



Finally, it also depends on the implementation of the roadmaps of the projects themselves: for example, as of today we expect Ethereum to move to version 2.0, a full release of parachains from Polkadot, and smart contracts from Cardano.

Knowing all this - let's move on to the final part.



Conclusion

So, a Project is a set of three main parts - Protocol, Oracle, Index, of which the Token is the linking element.

The Project can be defined as an L1 level cross-chain solution for interaction with NFT of any order / level of complexity.

The project is designed and developed as a DAO.

The project provides Protocol, Oracle and Index capabilities based on the principles of openness and decentralisation, but with certain stages of disclosure of their elements.

The project aims to unify DAO & DEX solutions, regardless of the specifics of the implementation of the latter, and to develop a toolkit of simple mechanics of liquidity management of any order.

Finally, the Project acts as one level of standardisation for entities such as: tokenisation, moving online entities to offline, integrating DAOs with each other and others.



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