

Sigmadex NFT Methodologies

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Abstract

The purpose, utility and value proposition of the Sigmadex NFT reward system is developed. Its focus hinges on a 3 level approach that gives Sigmadex a level of fun, an element of replay value, while providing a unique sets of market information to traders. Value from a penalty pool is redistributed through a loot box or trading card system of reward NFTs, which provide tradable active or passive bonuses of varying rarity for users on the whole or part of the platform. In consuming or trading these bonuses, unique market data is exposed for users optimizing their trading portfolios.

1 Introduction

Sigmadex provides two unique features that differentiates itself from the rest of the ecosystem - a yield farm that timelocks liquidity to a penalty curve, and a reward system the compensates users for farming yield against this curve. The subject of this document concerns the mechanics of the reward system- specifically what is paid out in addition to governance tokens- a sort of 'loot box' of 'trading cards', if you will, that provides discounts, bonuses and other rewards in the form of NFTs. The intent and purpose of these NFT's are 3 fold.

First, it is to provide an experience to platform users that is fun, interactive and engaging whilst maintaining an educational element. Secondly, is that these NFT's have a definable monetary value that is revealed on a secondary market for these NFT's. Thirdly, through this valuation, they provide a unique set of market data on a specific asset that is otherwise rare or unobtainable. The strategy is that these 3 facets come together to form a repeatedly used decentralized exchange which provides the ecosystem with unique sets of market information and, looking to the future, the basis of an identity framework for undercollateralized loans.

As Sigmadex moves beyond the pool, swap, yield feature set into the loan/ borrowing/margin architecture, the NFT collections can be collated with an experience system that informs the platforms ability to provide competitive collateralization rates, and hopefully one day undercollateralized loans.

The structure the paper is as follows - the general mechanics of the NFTs are discussed, how they are quantified and valued, what metadata is and how its created, and ending towards the future ambitions of competitive collateralization through this medium.

2 Mechanics

2.1 Sourcing Value: The Penalty Pool and SDEX fees

In constructing the reward NFTs, the first question is where the value is obtained to forward it onto users. The answer to this question is that it is derived from two sources, a very small SDEX protocol fee, and the pool of tokens derived from collecting penalties. Penalties occur when a user withdraws their stake before the maturity date. It is against this pool of value that NFT's derive many of their benefits.

2.2 Minting

There will be several ways in which a user can acquire NFTs. The first NFT event is during the genesis phase and will enable SDEX holders to bond assets together for the purpose of harvesting the most sought after NFTs. The secondary way is in the form of a loot box given to them at the end of their vesting period in a yield farm. They can also be bought and sold on secondary markets if people so choose. Additionally certain NFTs, may substitute earned transaction fees for one time use NFTs.

2.3 Types

There are two types of NFTs minted actives, which are consumed upon use or a set amount of uses, and passives, which grant persistent bonuses to the account holder. Of these types, a rarity system modifies the absolute value of the redemption, between bronze, silver, gold and platinum.

2.4 Platform Scope

NFTs are designed to provide access to benefits across the platform. Ultimately, any value in the algorithm, any swap fee, and slippage rate, could have an NFT that changes its character for the benefit of the user. This ranges from reduced slippage for a swap, a change in how rewards from adding to a liquidity pool is accrued, and various yield farm dynamics. If Sigmadex chooses, it can restrict certain NFT's to certain pools or assets to incentivize a certain flow of funds. Looking towards the future, this will be extended to include modifying the collateralization of debt and the rewards for lending.

2.5 Valuation

A key part of making the NFT reward system work will be to accurately estimate the value of a NFT in relation to the cost it bears on the penalty pool. Most will be easy to value, such as a transaction fee discount, or an APY multiplier, others, not so much. It will be imperative that, given estimators for these values, that the penalty pool be fractionally reserved within a certain risk tolerance. It is for this reason I hypothesis that certain NFT's have expiry periods, or, if they are by proportion, maximum benefits.

2.6 Metadata

While the primary goal of the unique reward system is to create an element of entertainment and replay value as users find ways of combining NFT's for big gains, building their 'stats' by accumulating passive NFTs, or by flexing their rares. There is a tertiary utility of the NFTs that concerns creating unique crypto-market indicators.

In the same intuition that Black Scholes infers the implied volatility. Certain NFT types, such as impermanent loss protection, can infer the price of risk and the market value of a volatility hedge through the secondary market. It is through this tertiary method that Sigmadex plans to make a solid contribution to the DeFi ecosystem - to bring a unique set of market data that traders can utilize to optimize their strategies. Whether it's by observing where users consume their APY multipliers, their downside risk hedges, or their free swaps. These 'displacements' in the market convey where users are willing to be there is the most gain, most risk, or efficient arbitrage paths are. The value of these NFT themselves on the secondary market covers the value of these modifiers.

3 Conclusion

The Sigmadex Reward system was characterized. Its 3 fold strategy of providing a degree of entertainment, value add, and unique perspectives of market data is implemented through allocating a penalty and fee pool towards a loot box/trading card system of NFT rewards of varying rarity and a passive and active nature. These NFTs provide discounts on platform operations and incentivize different types of behaviours on it while providing unique windows into the valuation of a variety of different types of financial instruments, such as the value of hedging the volatility of an asset. Though this reward system, it is hoped that Sigmadex will provide a repeatedly used, fun and unique value proposition for the DeFi space.