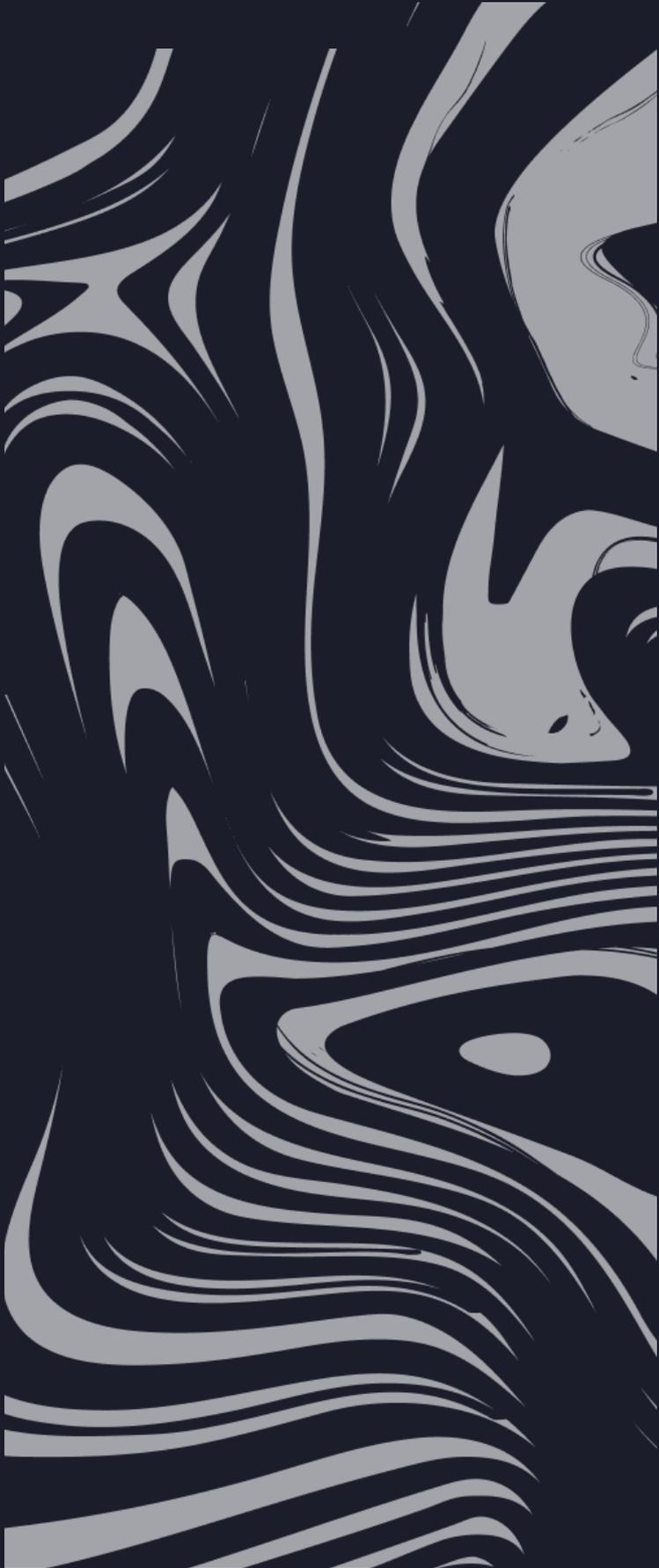




Tsunami



2023

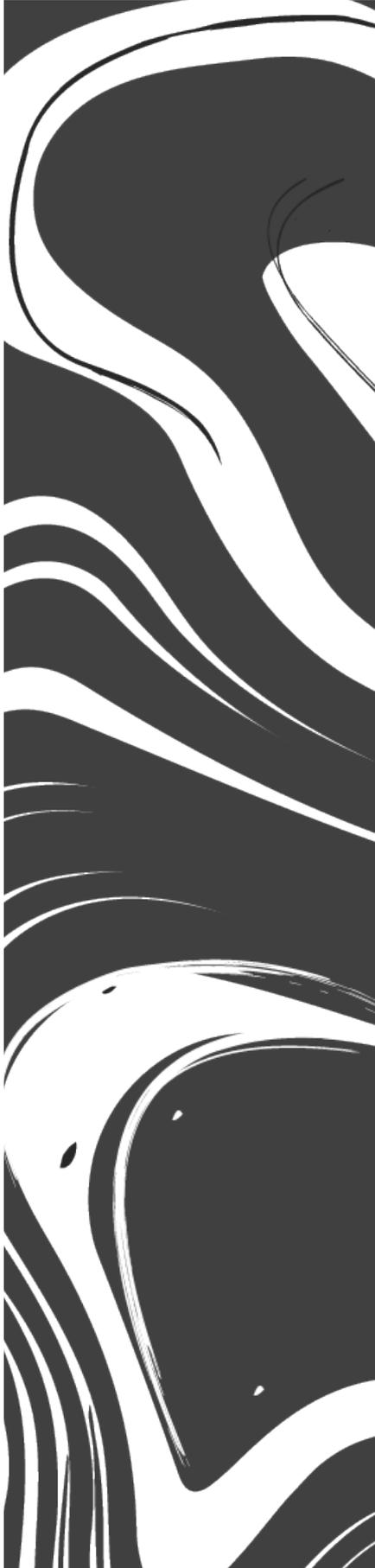
READ ME

WHITE PAPER V2:0

CHAPTER 1:

INTRODUCTION

BENEFITS OF DEX



By the end of 2022 the CEX-es had matured enough to form the first wave of crypto- pioneers while also setting the trend toward decentralized trading.

Indeed, the ease and well-designed experience of centralized exchange has greatly helped in lowering the barrier of entry to crypto trading. This became possible mainly through a well-designed architecture and UX that proved to have been fairly welcoming and easy to adopt. However, it gradually became a less risky option to trade on a DEX where the users always retain the control of their assets and do not have to deposit them onto the platform. On the other hand, dApps had seen a significant uplift in speed and features.

The opportunity to inspire and draw the CEX fanbase has, therefore, become an intrinsically natural stage of DeFi evolution for DEX. This challenge is now evident in how dynamic the trading volume at DEXs in November 2022 was as compared to CEX.

This recent growth in number and quality of DEX solutions created a progressively reach variety of choices for users churning from centralized exchanges.

WHAT IS TSUNAMI EXCHANGE?



Such was the setting for Tsunami v1.0 to emerge. In short, Tsunami is a DEX. More specifically, a non-KYC decentralized perpetual futures exchange designed to be deployed over any variety of non-EVM blockchain that offers trading options for a wide range of markets including cryptocurrencies, commodities, stocks, and Forex. It had successfully worked out as its previous version and inherited its main strong points, such as:

Robust Layer 1 platform

While more chains are yet to be adopted, Tsunami was first deployed on Waves blockchain. This is an L1 network, a genuinely base level forming the main structure for transaction that performs on par with such blockchains as Polygon, Ethereum or BSC. Waves has been building up its market presence since 2017 and tuned up the blockchain to exactly the needs of high throughput. As a non-EVM platform, Tsunami offers several distinct advantages that stem from our deliberate decision to choose a blockchain flavour that unlocks these benefits.

These advantages include greater flexibility and compatibility with a wider range of blockchain networks, improved scalability, reduced transaction fees, and increased security due to the unique consensus mechanisms and cryptographic protocols utilized by non-EVM blockchains. With these advantages, Tsunami provides a highly adaptable and resilient trading platform that can seamlessly integrate with different markets and blockchain ecosystems, ultimately providing greater value and opportunities for our users.



High-speed secure transactions by virtue of LPoS consensus

The consensus algorithm of LPoS adopted on Waves blockchain to suit the transactions high speed with the same level of security. Since the user do not need to transfer the leased tokens to a mining node, there is no risk for these tokens to be hacked. Besides, the large volume of staked tokens secures the node against the 51% attack.

Commodities as a market to trade on

The nature of synthetic perps allows an easier asset expansion than it can be on a spot market, meaning a greater potential for scaling up the existing asset range. Forex, stock, commodities — the benefits of a solution designed to be universal enable us to plug in any of these, or just any market as soon as there is a need to do so.

Fixed commission, regardless the network load

The LPoS (Leased Proof of Stake) consensus algorithm is a unique approach to achieving fast and efficient transaction processing on a blockchain network. One of the key benefits of the LPoS consensus algorithm is its ability to provide low and fixed commission fees for transactions. In addition, the LPoS consensus algorithm also allows for faster transaction processing speeds.

Perpetual synthetic futures trading

Tsunami v1.0 has initially been a place to go for perpetual swaps. Perpetual contract trading had been carefully designed to be supported by an increasingly high leverage, justified by the equilibrium of a well-balanced funding rate mechanism and extended to a variety of assets beyond crypto, such as grains, gas, gold or crude oil. Commodity prices are fed to the exchange dashboard from a pool of over 15 most reliable sources that send an updated price every 5 minute.



Best Waves engineers support and input

Waves the blockchain owes its tech prowess to the best or programmers and architects. Tsunami the exchange is built by the same programmers and architects who aimed to match Waves performance and security with the power of decentralization. Our close collaboration with Waves core team meant Waves technologies, such as decentralized bridges,

oracles, as well as the whole architecture, to be readily available for Tsunami. Both matured and well-tested Waves technologies, and cutting edge tech developed on top of them is there for us to draw from so that to provide users with high performance and proven stability, enduring even the most massive peak loads without detriment to user experience.

Healthy tokenomics based on a native token

Tsunami has issued its native token TSN based on non-inflationary model. The initial supply of 1 000 000 will never be increased until the end of times, so the token value would only keep growing. In addition, 10% of TSN amount were burnt, thus giving its value an extra boost.

Strong community

Gradually there had formed a stalwart support around Tsunami, represented by multilanguage traders speaking English, Arabic, Russian, and Spanish. Our community is made up of traders, developers, and enthusiasts who are passionate about the potential of decentralized trading. This support is what has allowed us to grow and develop the Tsunami DEX protocol into what it is today. We are incredibly grateful to our community for their contributions, feedback, and enthusiasm.

CONCLUSIONS/ TAKEAWAYS



Tsunami has achieved significant milestones in maintaining a steady trading flow, with impressive daily volume and TVL values. With its innovative approach to liquidity provision, advanced trading tools, and user-friendly interface, it offers traders a unique and competitive alternative to traditional exchanges. Our ongoing commitment is to continue refining and advancing Tsunami protocol, with the goal of becoming the leading non-EVM perpetual futures exchange in the market. Our focus on innovation and exceptional user experience, combined with our dedication to staying at the forefront of industry developments, positions us well to deliver continued value to our users.

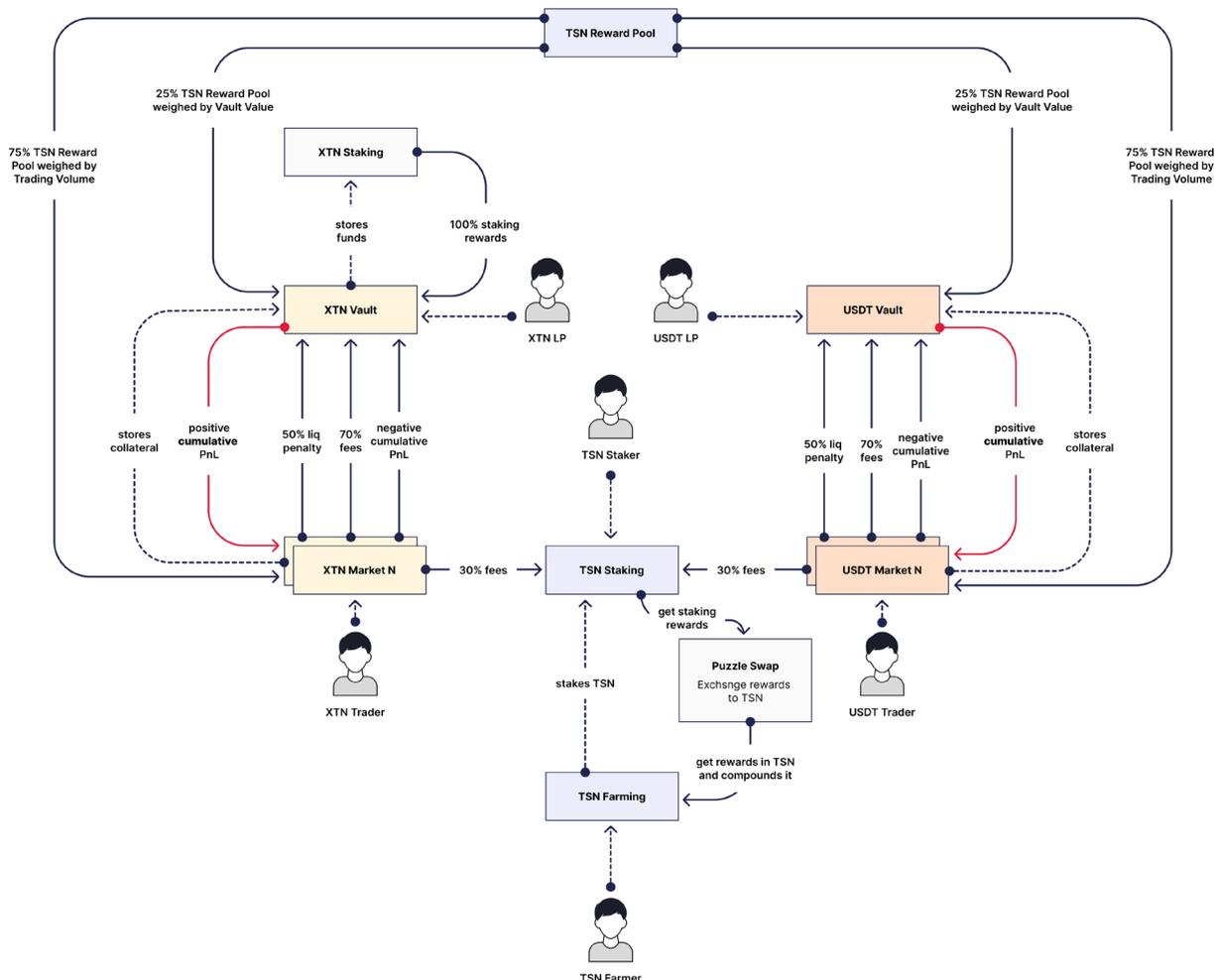
CHAPTER 2:

TSUNAMI EXCHANGE OVERVIEW

TSUNAMI EXCHANGE ARCHITECTURE

Tsunami is an open-source non-EVM DEX designed after the Ports and Adapters architecture. It operates on smart contracts that handle the most of the functions:

- depositing collateral from liquidity providers and locking them up until they are withdrawn
- executing the trades by opening and closing the positions and recording the trades on the blockchain
- collecting fees from the traders
- storing the fees so that to compensate the liquidity providers and maintain the operation of the DEX



The flow of funds within the Tsunami 2.0 protocol

TSUNAMI SMART CONTRACTS IN ACTION

The above range of features is enabled by a network of smart contracts. Let's take a closer look at how each of these smart contracts functions within the Tsunami ecosystem.

Liquidity Provision contract

This contract is responsible for providing liquidity to the DEX. This is done by locking up collateral from liquidity providers, which are then used as collateral for trades. The contract is also responsible for collecting fees from traders, storing them, and distributing them to the liquidity providers.

Prizes contract

This contract distributes prizes to winners of various competitions held on the Tsunami platform, including trading competitions, referral competitions, staking competitions etc.

Order executor contract

This contract executes orders submitted by users on the Tsunami platform. It matches buy and sell orders based on price and quantity constraints.

Fund manager contract

This contract manages the funds deposited in the vault and ensures that they are used efficiently. It also manages risk exposure by diversifying investments across different assets.

Staking contract

This contract allows users to stake TSN tokens and earn rewards.

Referral contract

This contract tracks referrals made by users and rewards them accordingly.

Governance contracts

These contracts allow token holders to vote on proposals related to the development and management of Tsunami such as changes in fee structure or addition/removal of trading pairs.

Now we are going to delve deeper into the specific attributes that make Tsunami a unique and innovative decentralized exchange. In the following sections, we will explore the key features of Tsunami, including its design based on the Ports and Adapters architecture.

NON-EVM PROTOCOL



Non-EVM protocols for building DEX offer a number of benefits, including:

- Increased liquidity: One of the most significant advantages of non-EVM protocols is their ability to increase liquidity as a result of their improved transactional speed and processing capabilities. This enhanced efficiency allows for increased trading volumes on DEXs, thereby increasing liquidity.
- Improved scalability: Non-EVM protocols are faster and more efficient than their EVM counterparts, which means that DEXs can handle more trades and larger trade volumes without sacrificing performance. This is especially critical given the surge in decentralized finance (DeFi) and the burgeoning demand for DEX services.
- Lower costs: Non-EVM protocols typically require less gas to make and process trades, which makes trading more affordable for users, particularly for those who may be priced out of traditional finance due to exorbitant fees.

PORTS AND ADAPTERS ARCHITECTURE



The choice to use the Ports and Adapters architecture is another strategy to fulfill the virtuous promise of decentralization. The core principle to separate the business logic from interfaces, aka adapters, interacting with the external world provides a flexible and modular way to develop and maintain the application core independently from other components — which, apart from making it easier to handle upgrades of the application core, maintenance and scaling of the overall system over time, also helps to adapt to new blockchains.

1.

By tapping into a larger aggregate liquidity pool, Tsunami helps traders access a greater number of trading pairs and experience better prices.

2.

There will be the most cutting edge tech on the blockchain scene as long as switching to the most robust, scalable feature-rich and high-performant protocols.

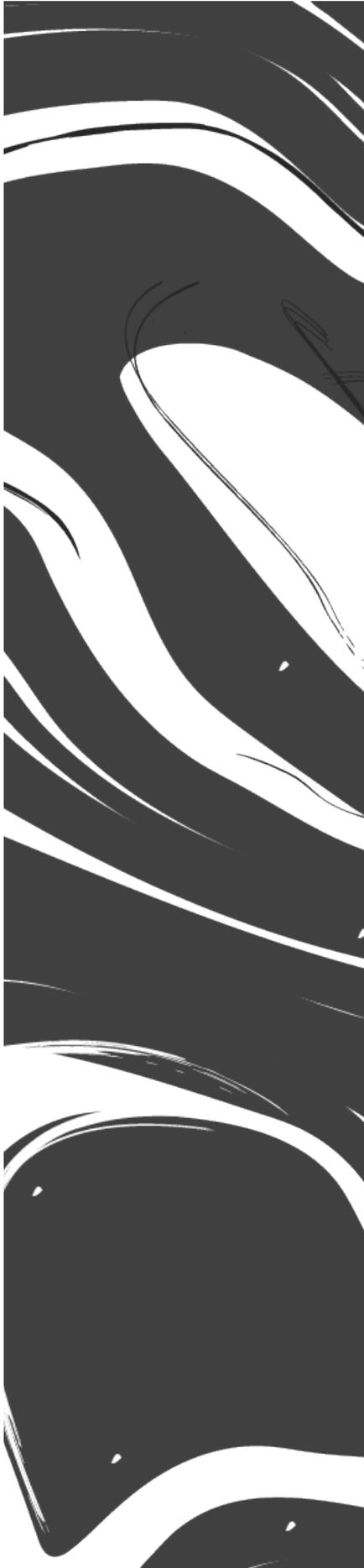
SUPPORTED ASSETS



An essentially powerful advantage of Tsunami as a perpetual futures exchange is how easy it is to extend its markets choice over to non-crypto milieu. As soon as there is a perceived interest for a specific trading pair, Tsunami v2.0 will connect to stock, commodities, Forex or NFT exchanges through an exchange oracle and allow the users to trade on any of these markets along with crypto. Precious metals, gold, oil, or S&P index trading on Tsunami v 2.0 is now a reality.

This ability to extend its market offerings to non-crypto markets gives Tsunami a competitive advantage over other crypto trading platforms that are limited to cryptocurrency only. Traders can now diversify their portfolios and trade a range of assets from different markets, all within the same platform. This makes it more convenient for traders to manage their investments and take advantage of opportunities in multiple markets without the need to switch between different trading platforms.

TRADING FEATURES



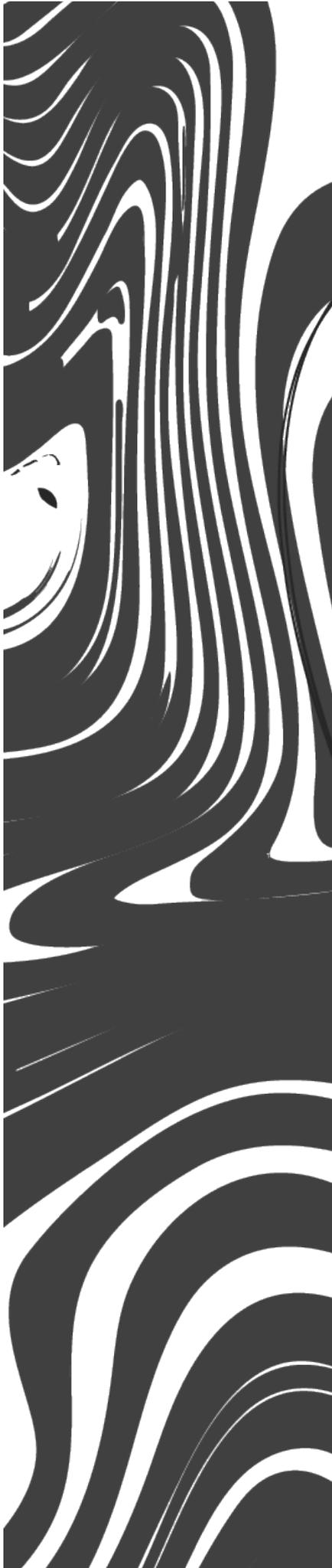
Funding rate

When someone trades on a market, the ratio of assets in the pool changes, which leads to the deviation of the market from the index price. To approximate the market price to the index price and also to encourage taking positions in a suitably balanced manner, Tsunami employs a well-established mechanism known as the Funding Rate. It is calculated based on the difference between the index and market prices and can be applied to one of the trading sides, long or short, depending on the market direction. For instance, an abundantly large volume of long positions typical for a bullish market means positive funding rate. In such case those opening short positions will receive payment from traders with long positions. And conversely, a bearish market encourages going short massively, to counterbalance which short position holders pay the funding rate to longs.

Commission fee

A revamped transaction model suggests a significantly lower fee out of the nominal volume to be charged for both opening/increasing and closing/decreasing a position. However, using a leverage multiplies the fee the times of the leverage. It is going to be a fair deal for low-risk traders since, say, a \$1000 position with an x1 leverage charge will be proportionally low. It, on the other hand, helps making sensible decisions when taking risks, as a \$100 position with an x10 leverage incurs ten times the fee value. The new fee model we introduced to our protocol is as attractive as the ones currently in use at the top solutions on the market, but it also offers generous financial incentives to liquidity providers by returning 70% of collected fees to them.

As for the rollover fee, a 0.0035-0.01% per hour makes it a much more attractive setup than even the major protocols can offer for perpetual futures trading now (e.g., 0.007% to 0.024% per hour at gTrade). Introducing this fee should help the traders with the timing, so that a position is not held open to perpetuity.



Stop Loss and Take Profit Orders

Tsunami v2.0 lets one have the best of both worlds. The extremely volatile nature of futures makes trading, particularly a leveraged one, an exhaustively intense activity. To spare traders troubles of constantly monitoring the price fluctuations we introduced Stop Loss and Take Profit Orders, a typically CEX facility, to Tsunami the DEX. The signature and the very creation of a transaction are still all at user's disposal, while the smart contract accurately verifies the conditions of the order so that the specified price threshold is met to launch the transaction. Our protocol thus fuses with the user intention in a synergistic strategy to execute at the maximum profit.

Arbitrage

Moving on, the lowest commission ever charged on any of Waves ecosystem platforms will reliably gain traders interested in arbitrage trading and other new trading strategies. Arbitrageurs will be able to make profit from an asset price across the market by plugging in to APIs we provide for such purpose.

Reaching out through Gamification and Referral Programme

We tried to come up with something genuinely exciting for the traders so that to check the box of “gamification” and actually make it more of a game. Eventually, we introduced a couple of features that could arguably help to introduce some fun into trading; new opportunities to make profit had also been in the design.

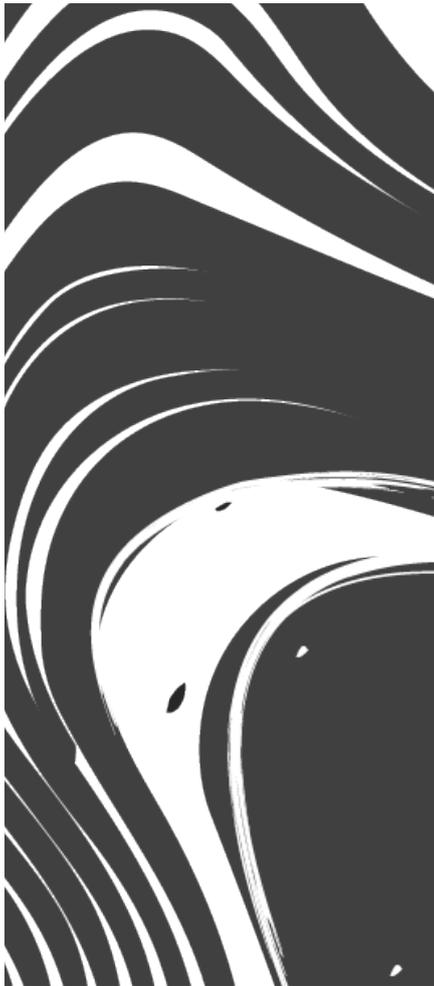
Users can now compete against fellow traders and see who can reign supreme as the most successful trader, all while unlocking special rewards and achievements along the way. This added layer of excitement provides users with an incentive to keep trading and achieve their financial goals. Perfect for serious traders who want to monitor their performance and identify areas of improvement, this feature allows users to compare their results with others and stay motivated to reach new heights and launch more transactions.

The referral programme helps traders that have been happy with Tsunami bring around new users and also be rewarded. Tsunami offers a referral programme that incentivizes existing users to invite new users to the platform. When a new user (user A) registers on Tsunami via a referral link from an existing user (user B), user B is rewarded with a percentage of the fee for every transaction that user A completes. This referral system encourages the growth of the Tsunami community and rewards users for spreading the word about the platform.

CHAPTER 3:

LIQUIDITY

OVERVIEW OF LIQUIDITY PROVISION



In the world DEXs, liquidity is the lifeblood that keeps the system moving. Without it, the exchange becomes a stagnant pool of digital assets, a wasteland of unfulfilled trades and lost opportunities. But once the liquidity becomes ample, each trade is a new point of connection, a new node in the ever-expanding web of liquidity that underpins the DEX.

Tsunami v2.0 has been enhanced to provide a strategy to cope with the major limits of nowadays DEX, liquidity shortage being the most dramatic one. No matter how perfectly a platform has been engineered, as long as it operates with no banking layer mediation, any single trade would only be smooth and fair to the extent in which the liquidity is sufficient.

In order to facilitate trading, Tsunami introduces Omnivault, a special vault that aggregates liquidity in the form of stablecoins supplied by liquidity providers in exchange for a share of the trading fees, liquidation penalties and other rewards.

MECHANISM FOR LIQUIDITY PROVISION

OMNI-VAULT AND DVAMM

Summary

An Omni-Vault is a type of a smart contract that allows for the safe and secure storage of liquidity within a decentralized exchange based on a dynamic automated market maker (dvAMM) model. Tsunami v2.0 extends the omni-vault capacities further on to aggregate liquidity from all the dvAMMs. In short, an omni-vault receives the liquidity from every source available on Tsunami and provides back to make up for a trader's positive PnL: every market liquidity demand is to be supplied from a single source.

Details

The omni-vault

The omni-vault consists of two sub-vaults:

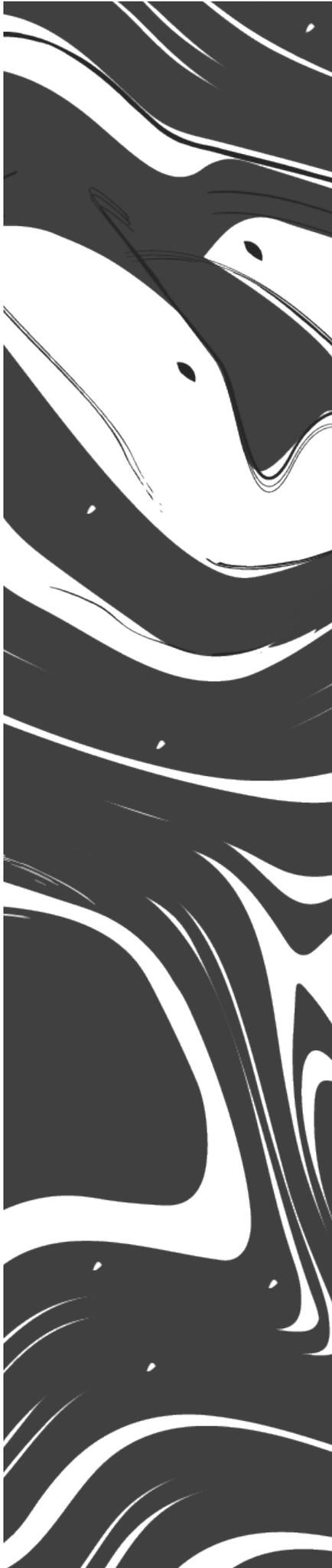
- active balance
- reserves balance.

The only mission of the active balance is to hand out gains from positive PnL. Once a trader closes a profitable position, the receivable profit comes from the active part of Tsunami omni-vault. And of course the deposited collateral is also returned to the trader. On the other hand, whenever a trader opens or increases a position, the dvAMM sends the trader's collateral to the vault. The reserves, true to the name, accumulate the liquidity from fees and liquidation price, negative PnL and the market price accretion. The latter is subtracted from the active balance.

Dynamic Virtual Market Maker

The liquidity provided by the vault is made available to traders through a dynamic virtual market maker (DVMM). The DVMM uses a mathematical algorithm to determine the price of an asset based on the current supply and demand. The algorithm is designed to adjust the price of an asset in real-time as the supply and demand changes. This ensures that the price of the asset remains in line with the broader market, and that traders can enter or exit positions without significant slippage.





Advantages

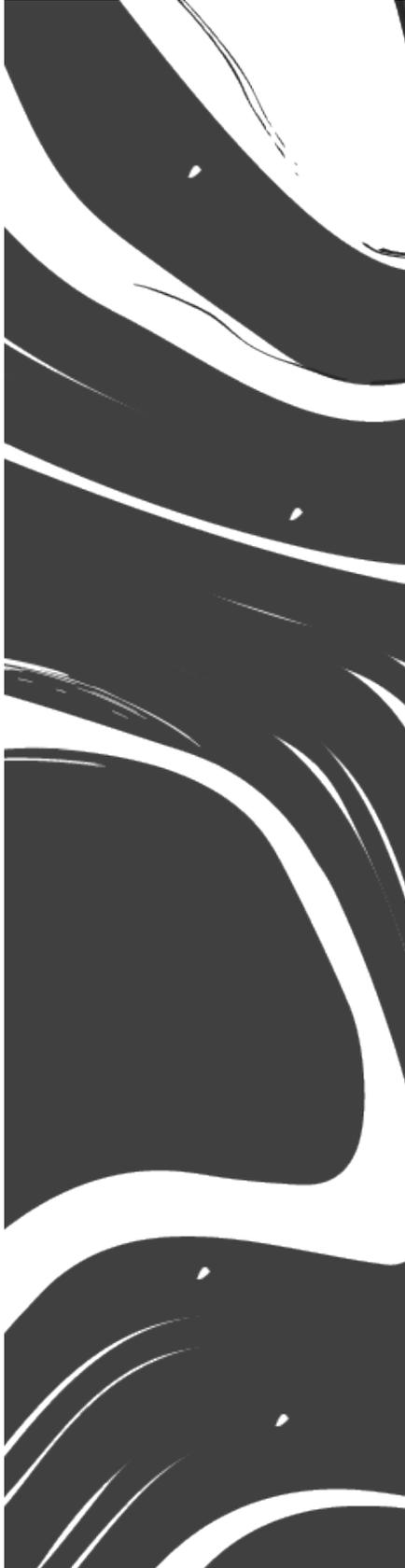
The liquidity flow should never run dry once the omni-vault is implemented. Because its capacities draw from the total of the markets active on the exchange, the liquidity volume available at a time will expand levels up the limits experienced with Tsunami v1.0.

Importantly, the greater the total liquidity volume is, the less impact a trade will produce on the market price, and the lower the slippage is going to be.

What's more, Omni-vault eliminates the need to create individual vaults for each market pair, resulting in deeper market depth and reduced slippage. Additionally, it enables more efficient utilization of liquidity by facilitating the management of a greater number of market pairs simultaneously.

On the overall, this approach allows each trading pair on Tsunami to function as a standalone market, providing unparalleled flexibility and liquidity for traders. The dvAMM smart contracts ensure that the platform can handle high volumes of trades and adjust to market changes automatically. The vault smart contract manages the assets and collateral on the platform, ensuring the security and integrity of the system.

BENEFITS OF PROVIDING LIQUIDITY



Summary

Tsunami v2.0 trading will be secured by liquidity providers. Locking tokens in liquidity pools will be profitable for both liquidity providers and traders: the former will be earning good revenue, while the latter are going to benefit from high liquidity making slippage to be of no concern when entering or exiting a trade.

Details

There are several benefits to being a liquidity provider on a DEX, including:

Earning from every source:

- from fees
- from trading reward pool
- liquidation penalties
- from negative P&L amounts

Low barriers to entry:

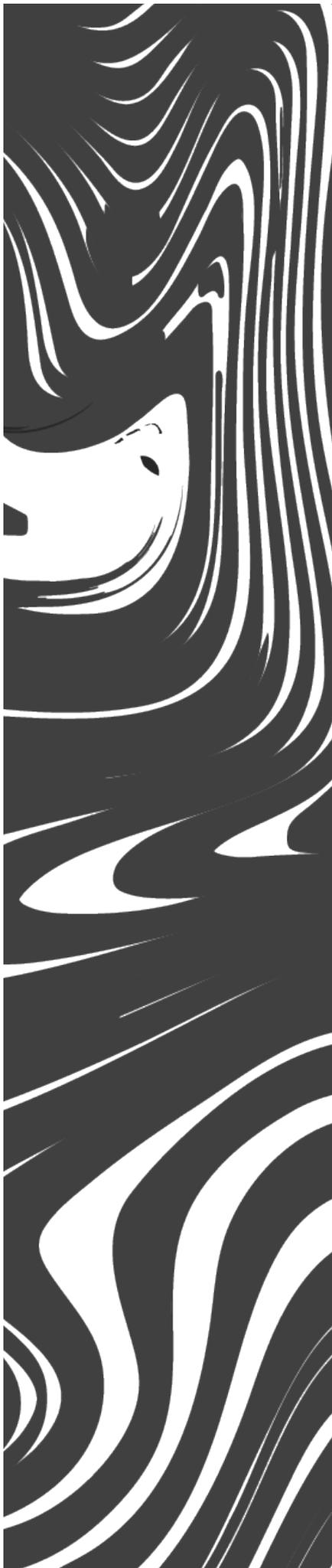
Unlike traditional market-making activities, providing liquidity on a DEX does not require a significant amount of capital or specialized knowledge. Anyone can become a liquidity provider by depositing funds into a liquidity pool.

Passive income:

Once funds are deposited into a liquidity pool, liquidity providers can earn passive income from trading fees without needing to actively manage their positions. This can be an attractive option for individuals or entities that want to earn income without the need for constant monitoring and trading. However, it is crucial for liquidity providers to consider their risk tolerance and monitor their positions regularly to avoid impermanent losses, even if the market as a whole is profitable.

Price impact reduction:

Providing liquidity, liquidity helps reduce price impact for traders. This means that traders are less likely to experience significant slippage or price volatility when executing trades, which can make the trading experience more efficient and attractive.



Advantages

Liquidity provision is a critical component of the latest version of Tsunami. The introduction of a vault and a dynamic virtual market maker improves liquidity supply, while liquidity provider rewards incentivize individuals to provide liquidity to the DEX. Together, these components create a robust and effective liquidity ecosystem for Tsunami.

Overall, liquidity provision can be a lucrative and accessible opportunity to earn income from idle funds. While liquidity provision can have its pitfalls, it definitely helps to improve the trading experience for all Tsunami users, making it a win-win situation for liquidity providers and traders alike.

CHAPTER 4:

TOKENOMICS

SUMMARY

Token Symbol
TSN

Total Supply
1,000,000 TSN

Type
Non-inflationary

TOKEN DISTRIBUTION:

Liquidity (ILO):

65%

650,000 TSN

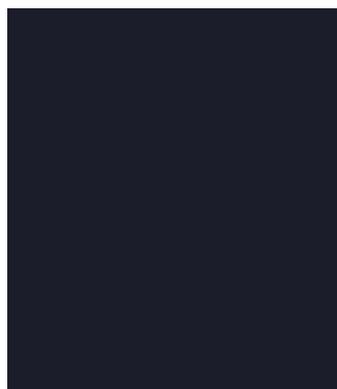


Team:

20%

200,000 TSN

to be gradually unlocked within 24 months, starting with 01/01/2023



Marketing Fund:

10%

100,000 TSN

to be gradually unlocked within 24 months, starting with 01/01/2023



Advisors:

5%

50,000 TSN



DETAILS



The initial supply of TSN tokens is fixed at 1,000,000 TSN, with no new tokens to be issued in the future.

20% of the tokens have been allocated to the team, which can be used to incentivize and reward team members for their contributions to the project. This will align the team's interests with the success of the project and motivate them to work towards its growth and development. A half of this amount had been unlocked immediately, providing liquidity to early investors and users. This measure adds up to creating a market for the token and enable it to be traded on exchanges. Another half were set to be unlocked over a period of 24 months, providing a steady and controlled supply of tokens to the market.

10% of the tokens have been allocated to the marketing fund so that to support the project promotion and growth. The goal is to create awareness and interest in the project, attract new users, and ultimately increase the value of the token.

5% of the tokens have been allocated to advisors, who will provide guidance and support to the team. This will help to ensure that the project is on the right track and that it is being developed in a way that considers long-term implications of every decision.

Finally, 65% of the tokens have been allocated to liquidity (ILO) on June 23, 2022 at Puzzle Swap to provide a strong foundation for the project. This helps encourage early investors to buy and sell the token on exchanges, and ensure that the project has a strong and active user base.

TSN USAGE



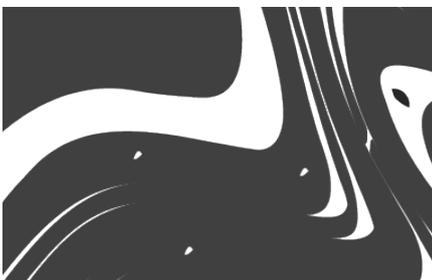
TSN is a token that serves a dual role as both a utility and governance token for the platform that it represents. As a utility token, TSN can be utilized within the platform for the purpose of remunerating for the services or products that the platform offers. As a governance token, TSN affords its holders a stake in the decision-making processes of the platform's operations and development. These include determining the percentage of fees that should be directed towards the token, thereby allowing TSN holders to have a voice in the overall revenue that is generated by the token.

Furthermore, TSN holders are entitled to vote on markets that Tsunami shall be opening to them.

Lastly, TSN holders can vote on whether the platform should bridge to different blockchains, thus allowing them to influence the platforms' network support decisions.

An important aspect of TSN function is its ability to garner 30% of the platform's generated fees.

ADVANTAGES



In summary, the proposed tokenomics model provides an equitable and balanced distribution of TSN, as well as ensuring liquidity and stability in the market. The non-inflationary nature of the model is a key feature, as it is designed to maintain the value of the token over time, making it a valuable and sought-after asset for both investors and users alike. In this way, the model not only supports the growth and success of the project, but also establishes a strong foundation for its long-term viability and sustainability in the market.

CHAPTER 5:

ROADMAP

FINALLY, WE WOULD LIKE TO OUTLINE THE MILESTONES WHICH WILL TAKE DECENTRALIZED TRADING TO NEW HEIGHTS.

01

Growing utility of TSN and DAO

At Tsunami, we're committed to providing our users with the most advanced and cutting-edge tech in the DEX space. This will increase the TSN token demand and utility. In turn, a greater utility of TSN should help in growing its governance power in a DAO we will be designing around Tsunami so that the community will decide on new markets and feature choice.

02

Overall Expansion Towards New Markets

We're constantly looking to expand our offerings and bring new options to our users. That's why we'll be adding new markets to the DEX, so you can trade on even more assets.

In the upcoming month, a range of traditional markets will be unveiled on our platform, including some hot-ticket commodities like oil, gas, and gold.

We are also going to announce stock trading, providing our users with unprecedented freedom to trade shares of their preferred companies without the shackles of traditional stock exchanges.

Moreover, our platform will soon include the Forex market, granting our users access to a myriad of currency pairs and lucrative trading opportunities.

To address the surging interest in NFTs, we are devising an NFT floor price trading feature, which allows the users to invest in these novel digital assets.

Lastly, we're considering introducing indexes to our platform, similar to the crypto market. This will give our users an effective way to track the overall performance of a market or sector, providing yet another avenue for diversification.

03

Providing API to other services as an intermediary

We'll be providing an API that other services can use to connect to Tsunami as an intermediary. This means that you'll be able to use Tsunami as a hub for all your trading needs, making it easier than ever to manage your assets.

04

Auditing Smart Contracts with AI

At Tsunami, we're committed to providing our users with a safe and secure trading experience. We understand the importance of ensuring the integrity of blockchain-based applications, and our goal is to provide our clients with the utmost confidence in the security of their smart contracts.

To ensure that our smart contracts are always up to par, we'll be utilizing AI to audit them. With our AI-powered system, we can easily detect any potential issues and address them promptly, so you can trade with confidence. Whenever a change is made to a smart contract, the new code will be fed into the AI model for analysis.

The model will then flag any potential vulnerabilities based on the patterns it has learned. To ensure accuracy and to minimize false positives a threshold will be determined by analyzing the performance of the AI model on a validation datasets of known vulnerable and non-vulnerable code examples.

05

Symbolic Executions

The technique is designed to automatically generate test cases, detect bugs, and prove the correctness of programs. By implementing symbolic execution we will speed up and refine bug detection and all sorts of verifications so that to improve the product regardless how complex it becomes and reduce development time. The model will then flag any potential vulnerabilities based on the patterns it has learned. To ensure accuracy and to minimize false positives a threshold will be determined by analyzing the performance of the AI model on a validation datasets of known vulnerable and non-vulnerable code examples.

06

Engaging hummingbot

Hummingbot, a highly customizable client software with a modular codebase will allow us to add trading strategies and make the integration with external exchanges ever more flexible. We expect this enhancement to help our users with a wide range of trading strategies, marking-making, arbitrage and thus provide a greater flow of liquidity to the pools.

07

Utilizing ccxt to Connect to Other Exchanges

To provide our users with access to more markets, we'll be utilizing ccxt to connect to other exchanges. This means that you'll be able to trade on more markets than ever before, all from the comfort of your Tsunami account. It's like having multiple tsunamis all in one place.