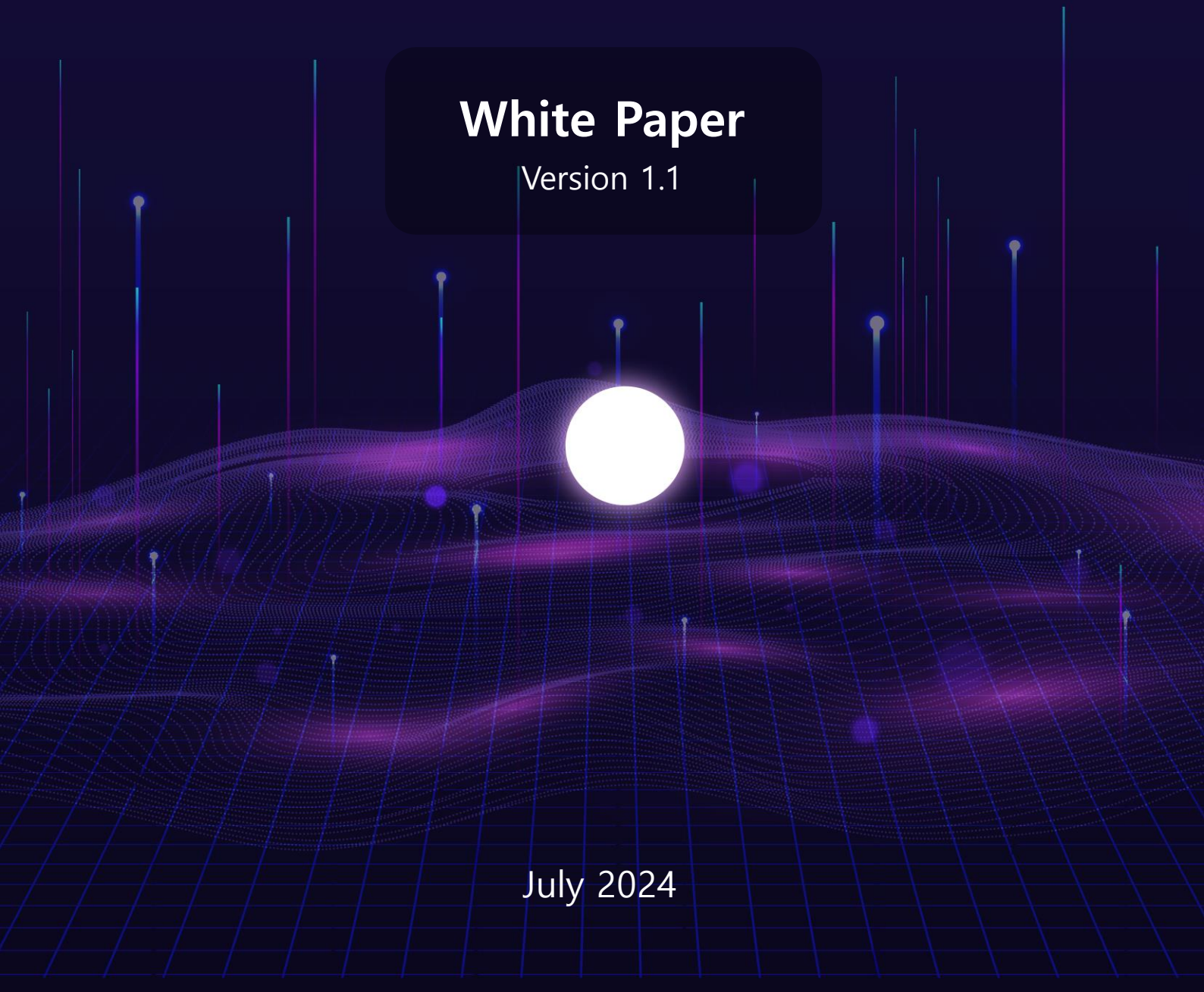
Yidocy+

Digital asset mining made easy for you!



White Paper

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Abstract

Yidocy+ is a hashrate finance (Hash-Fi) platform. It is the multiple-layer system engineered with the hardware and software frameworks and designed to provide decentralized finance services. The core stake-to-reward process is driven by hash power, with transactions automatically executed by secure smart contracts.

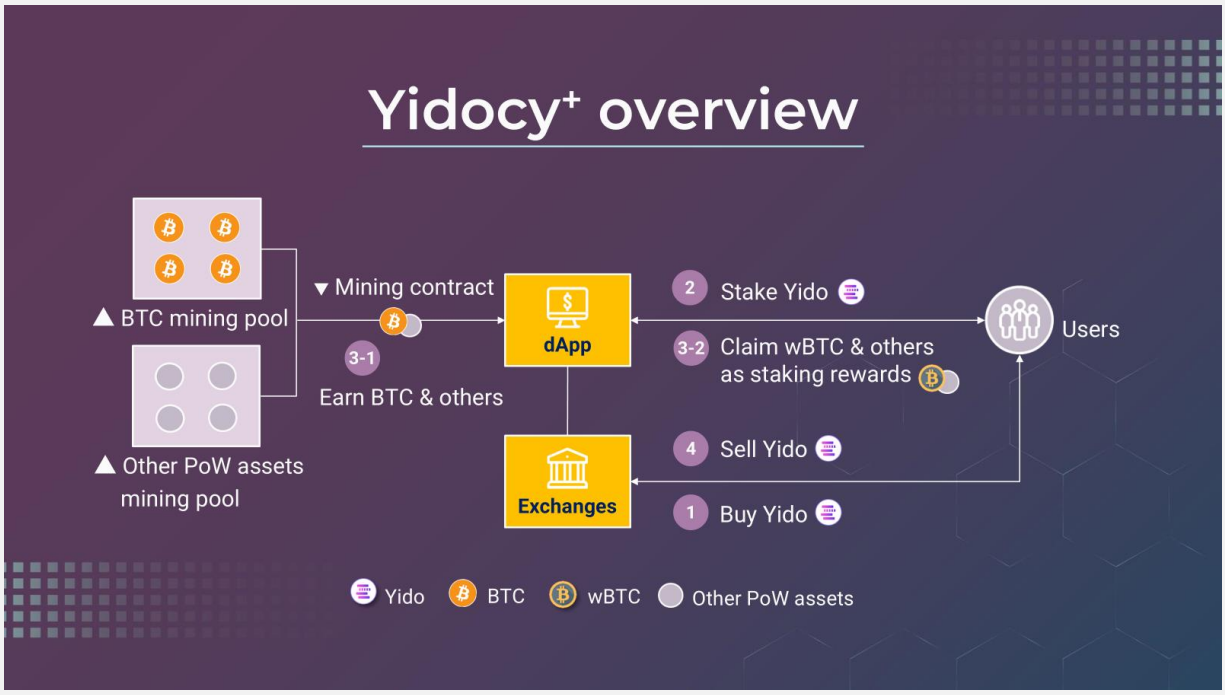
In essence, Yidocy+ platform focuses on Proof-of-Work (PoW) mining and distribution. Launched with Bitcoin pool as the mainstay, it will add other PoW assets and more in subsequent stages of expansion. The Bitcoin mining operation is powered by server-generated hashrates that are transformed into the native digital asset, called Yido. Collateralized by actual hash power, each Yido token represents the economic value that could be calculated based on the value of Bitcoin earned as yield.

Yido users will always have two choices. If the users are looking for yield-farming, the choice will be to stake Yido tokens in the Yidocy+ pool. By staking Yido, users participate in the Bitcoin mining operation just like they own the actual Bitcoin hashrates. Yield will be paid out in wrapped BTC (wBTC) when claimed and will be transferred to the users' wallet.[1]

On the other hand, if the users prefer to realize capital gains, they will stop staking and try to liquidate Yido tokens on the exchanges. By design, the Yido's value is effectively BTC-backed and the token is free from the liquidation risk.

Yidocy+ is the gateway to the Bitcoin mining and more for those who want to gain exposure to this industry. The platform effectively removes all the hassles involved in the direct mining venture and brings highest-grade liquidity to the traditional mining operations.

1. The mined BTC will be swapped for wBTC. As Yidocy+ is ERC-20 protocol, the wBTC swap is necessary for transfer to stakers' wallet. The price of wBTC is equivalent to that of BTC and so is its tradability.



[Diagram1: Yidocy+ overview]

Design and proposed solutions

A blockchain project survives not because its technologies are advanced but because it is able to provide its users with the services they require. One can never double down on a platform's usability too much.

We often quote 'disruption' as the tenet of blockchain. The power of being disruptive is rarely built because the blockchain technologies are innovative. Disruption is built because the majority users embrace the usages that are brought to life along with the technologies. The novelty of new technologies will wear off quickly if their usages fall short of mass adoption.

In this regard, the properties of Yidocy+ platform may be laid out in a few points.

Accessibility & Flexibility

In today's cryptocurrency, poor user experiences stand in the way of broader mass adoption. Complexity of technologies, long onboarding process, and even the white paper that is either too opaque or overly technical may be felt annoying or frustrating for average users.

Equally important as the decentralization, innovation, and other properties of blockchain are

the accessibility, usability, and flexibility to drive up the user experiences. In view of all this, Yidocy+ was designed to offer even the least technically savvy users the easiest path to and methodologies for Bitcoin mining and more.[2]

Over the past decade, Bitcoin mining has grown into a large-scale industry driven by increasing competition for mining efficiency. This growth has made the industry largely inaccessible to ordinary retail miners and investors. Even when they do gain access, investors often face very limited exit options during the mining operation.

The cloud mining popped up as a solution to overcome such drawbacks. This business became popular to a certain extent as it could lower the entry barrier. But lack of standardization, limited transferability of the product, and the inability to reach out to the broader audience made an efficient market hard to develop around its business model.

By comparison, Yidocy+ project completely removes entry barriers and exit obstacles to the Bitcoin mining for those who want to participate in the venture. The onboarding and exit processes are as easy as making just a few clicks on dApp. Rewards are paid out daily and instantly upon claim, with no locking period. Usages are clear-cut and the stake-to-reward process is remarkably intuitive to follow regardless of how complexly the protocols are written in codes in the back-end.

When it scales to diversify the mining pools in the next stages, Yidocy+ will bridge the gap between disparate networks and digital assets by enabling cross-chain interoperability. The solution will empower users by providing them with greater flexibility and control, thereby allowing them to leverage the benefits from the multi-asset mining portfolio.

Economic value

A hashrate token like Yido is backed by real-world hash power, with its value tied to the underlying PoW asset, i.e., Bitcoin. As a result, prices of Bitcoin and Yido will be positively correlated in the secondary market.

This is the trait that distinguishes Yido from the vast majority of altcoins and NFTs. In the crypto world today, there are realistically few altcoins the intrinsic value of which can be somehow calculated or ascertained. In comparison, Yido comes with the intuitive valuation model that

2. Yidocy+ will be positioned as a multiple-assets mining pool in next stages of expansion. PoW assets and others will be added in the pool. More on this is explained in the later chapter.

can logically estimate the asset's present value and analyze how such value is affected by uncertain variables.

Then, how can the economic value of Yido be calculated?

The theoretical fair market value (FVM) of one Yido is determined by the sum of the discounted cash flows (DCF) generated from Bitcoin mining, based on the underlying hash power, over the duration of the mining period.[3] A caveat here though is that since the duration of the mining period is not fixed, the FMV calculation carries a degree of uncertainty. Additionally, the DCF method assumes that the Bitcoin earned will be liquidated at the end of each period to generate the cash flow. In reality, it will be rare for Yido holders to sell their holdings regularly at the end of each period; instead, they are more likely to either liquidate them early or 'hodl' on a longer term.

Despite these nuances, the use of a widely accepted open-source valuation method will surely enhance the transparency of Yidocy+ economics. This approach allows anyone with basic finance skills to be able to check if the market price of Yido reasonably reflects its underlying value, thereby helping to bolster user confidence in the validity of the market figures.

Risk management

The risk aspects of a hashrate token project generally hinge on two main factors: technical risks related to hardware and software systems, and risks associated with the PoW platform. The latter is particularly concerned with the future viability of PoW assets, which face scalability challenges and are increasingly losing ground to other asset types, such as Proof-of-Stake (PoS). The latter issue will be discussed in the relevant chapter later.

For Yidocy+ as the 'system', the primary risk is tied to the operation of its physical infrastructure. A critical element in Yidocy+'s success is ensuring an uninterrupted and stable supply of hash power. If this is not maintained perfectly, there is a risk that reward distribution may be suspended or even halted.

Several scenarios could jeopardize this stability, including:

(1) Government bans on crypto mining or covert deals affecting electricity supply in mining locations

3. The merit of DCF method is that it provides an insight into the indicative intrinsic value of the asset. Actually, the price of Yido on the secondary market will be affected by various factors.

(2) Significant damage to mining facilities due to natural disasters such as floods, earthquakes, or heavy rainfalls
(3) Poor network connectivity and inadequate protection against cyber-attacks
(4) Difficulty in holding partners or third-party contractors accountable to their commitments

To mitigate the risks identified, the Yidocy+ team has chosen politically stable and crypto-friendly jurisdictions, such as Texas, USA, for hosting mining facilities. Additionally, protective measures against cyber-attacks have been implemented, including enhanced network security and robust mechanisms within the smart contracts, such as the decentralization of privileged roles and procedures for reinstating compromised functions.

Regarding the reliance on third parties, Yidocy+ team acknowledges that such reliance is often unavoidable due to the many interfaces within the ecosystem. On the surface, to reduce third-party dependence might seem contrary to 'decentralization', simply because to do so would usually lead to centralizing more functionalities. In reality, it is more about managing control than centralization.

In blockchain projects, there is typically a trade-off between decentralization and control. For Yidocy+, ensuring a reliable supply of hash power takes precedence over decentralization and even the efficiency or profitability of the operation. The team's firm policy is to prioritize control over distributed supply chain to maintain and ensure a steady flow of hash power.

To achieve this goal, Yidocy+ team is committed to making significant investments, upfront and in the course of the operation of the system, necessary to set up, maintain, control, upgrade, and scale the mining facilities.

Hash-Fi protocol

Yidocy+ is a Hash-Fi protocol, which may be regarded as a subset of decentralized finance (DeFi). It involves converting the hash power of a Bitcoin mining pool into digital assets. This system allows users to mine, own, and trade Bitcoin efficiently, without dealing with the complexities of traditional Bitcoin mining operations.

How it works

(1) The hashrates generated by a Bitcoin mining pool are measured, and Hash-Fi tokens are issued based on this measured quantity. For instance, a Hash-Fi token might be issued for

each Terahash of the pool, or the total hash power could be divided by a set number of Hash-Fi tokens to determine how much hash power is represented by each token. In both scenarios, the Hash-Fi token represents tokenized hash power.

(2) Due to its economic value and tradability as a digital asset, the Hash-Fi token can create an efficient market with exchange-grade liquidity for tokenized hash power. When used in a stake-to-reward platform, holders can stake Hash-Fi tokens to earn BTC yields, with rewards typically distributed through self-executing smart contracts.

Advantages

(1) The Hash-Fi protocol enables access to Bitcoin mining by individual users at any level, including blockchain beginners, inexperienced platform users, and novice investors. No need to get involved in the purchase, maintenance and operation of mining equipment and facilities, which an individual may well feel quite burdensome or even painful to carry out.

(2) Traditional Bitcoin miners holding onto their mining equipment usually suffer lack of liquidity. It is because there exist only very limited options for them to hedge against price fluctuations or market volatility. In comparison, holders of Hash-Fi token benefit from the liquidity and tradability inherent in the business model.

(3) The value of the Hash-Fi token is supported by the system's transparency and security. This includes self-executing reward distributions, the use of distributed ledgers for transparent data disclosure, and other protocol features that enhance value delivery.

Yidocy+ as an open-ended platform

During 2020-2022, a few hashrate projects emerged to prove that their solution could overcome shortcomings of the cloud mining. They could sell the public, quickly built large communities, and then made a successful debut in the major central exchanges.

The projects followed the one-to-one pairing model, where each hashrate token was linked to a single asset like Bitcoin or Ether before Merge. Still considered the industry standard to date, this model has a weakness, i.e., lack of hedging mechanism. The risk lies in that the viability of the Bitcoin and the hashrate token will not always move in the same direction, let alone change on the same curve.

Just note that the last block reward on the Bitcoin network is still more than 100 years away.

Granted that probably the position of Bitcoin will be increasingly solidified as time passes, it is hard to imagine that the Bitcoin-leveraged assets will also trail the same path. It is even harder to imagine that those assets will still remain relevant until the last block of the Bitcoin network is finally added.

Why is that? It is because two assets fare based on different economics and logics. The value of a hashrate token is tied to Bitcoin but still influenced by other various factors. Increasing mining difficulties, increasing mining costs, technology developments, and changing market dynamics are all conceivable variables. That is, as the mining landscape evolves, the viability of these assets naturally becomes less secure.

To mitigate this risk, Yidocy+ plans to diversify its portfolio beyond Bitcoin. We will eventually make the platform more open-ended and less BTC-oriented, although the Bitcoin will remain as a mainstay. Initially, other PoW assets will be included and, expanding on this concept, PoS and other hybrid assets having the partial PoW properties will be also incorporated in the following stages. Apart from risk hedging, the diversification will also bring advantages of better efficiencies, such as less gas consumptions. More importantly, platform users will benefit to a greater extent as this approach will provide them with broader choices of digital assets and better yield opportunities.

On the technical side, Yidocy+ will also address cross-chain interoperability issues when it scales to multi-asset mining platform. When implemented, it will offer platform users increased flexibility and better control over their portfolios.

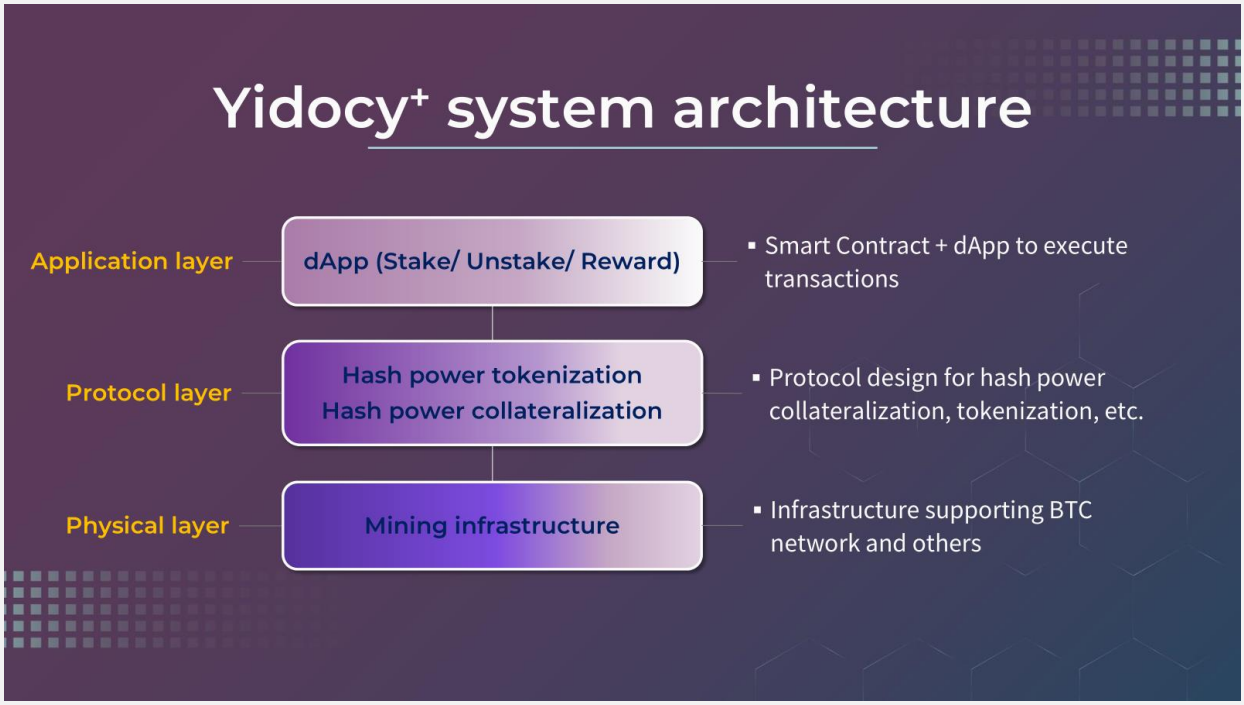
System architecture

Yidocy+ as a system is built upon 3 layers.

Physical layer

The physical layer encompasses the mining servers and other hardware components essential for generating hash power in PoW systems. This infrastructure is crucial, as Bitcoin and other PoW assets rely on the substantial computing power provided by such hardware system.

Similarly, certain non-PoW digital assets also need a physical layer. For example, Filecoin, a decentralized storage network, relies on storage providers who validate transactions and store data on their hardware to earn rewards. Aleo, which uses zero-knowledge technologies and



[Diagram 2: Yidocy+ system architecture]

the Proof of Succinct Work algorithm, depends on specialized hardware to generate proofs and solve puzzles for earning rewards.[4] As Yidocy+ expands, it will also need a robust physical layer to support these assets.

Protocol layer

In the Yidocy+ platform, the protocol layer is fundamental.

The protocol defines the rules, secured by smart contracts, for transactions and ensuring the smooth operation of all components. It facilitates the stake-to-reward process, where Yido holders earn Bitcoin mining rewards by staking tokens on-chain.

This layer supports the collateralization and tokenization of hash power and establishes the conditions and procedures for users to receive their staking rewards.

Application layer

The application layer of the Yidocy+ platform involves three main activities: Staking, Unstaking and Claiming rewards.

4. Aleo mainnet is yet to be launched at the time this paper is written.

Users can stake their Yido holdings to participate in mining and unstake them to exit. They can claim rewards distributed from their staked tokens, with the rewards transferred to their wallets. These processes are automated and governed by smart contracts.

The application layer includes three smart contracts as described below:

1. YidocyToken (YIDO) contract

The YidocyToken (Yido) conforms to ERC-20 and its maximum supply is 100 million. The contract utilizes multi-signature keys for enhanced decentralization and security, preventing single point of failure. This contract implements hashrate-driven finance, where users earn Bitcoin rewards based on their staked hashrates. The Hash-Fi incentivizes participation through stable hashrate-based rewards.

2. RewardPool contract

The RewardPool contract manages the distribution of staking rewards. With this contract, users are distributed with rewards which they can claim and transfer to their wallet at any time. Each transaction is recorded in the distributed ledger, which ensures transparency, fairness, and accountability of the distribution.

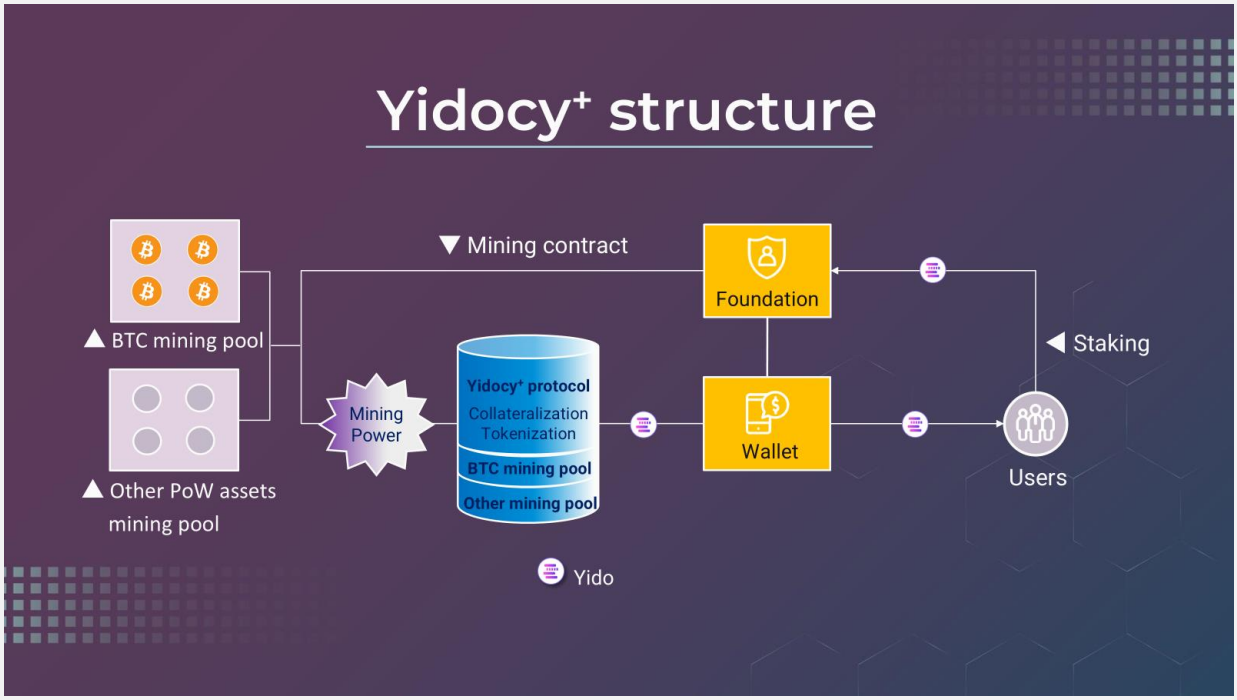
3. RewardTreasury contract

The RewardTreasury contract handles staking and unstaking activities. It allows users to stake, unstake, and monitor their staked balance, functioning similarly to a basic banking system for depositing and withdrawing funds.

Structure and reward distribution

The diagram below illustrates the Yidocy+ platform structure, highlighting three key aspects:

First, the primary function of Yidocy+ as a blockchain platform is to connect people to Bitcoin network. Its goal is to give a gateway to Bitcoin mining to the users who want to participate in the industry. Distribution of rewards is self-executed by smart contracts and to claim the rewards can be triggered daily. To transfer rewards from the platform to users' own wallet is instant and all other instructions on dApp are user-friendly and straightforward.



[Diagram 3: Structure of Yidocy+ platform]

Second, Yidocy+ team centralizes the supply of Bitcoin mining power.

The hashrates at the physical layer may be either acquired or contributed. Unlike certain past projects in which hashrates were contributed by external miners in exchange for project tokens, Yidocy+ centralizes the Bitcoin mining power. The team acquires the hash power by building and operating its own mining facilities, or using reliable and reputable hosting agencies. In both cases, the mining facilities are the assets of the Yiocy+ team.

As a case in point, a popular hashrate project in the past had decentralized the supply of hash power, thereby being able to completely focus on the software development itself. Despite a successful operation for less than 2 years, the project has flopped because the supply of the 'contributed' hash power was interrupted or significantly reduced to the point that the pool was forced to suspend or stop paying Bitcoin rewards to stakers.

The huge risk for the contribution arrangement is that, when the contributors (external miners) slack or breach the contract, the project team has little remedies on hand. It is because the team doesn't have the right to properly engage or control contributors' mining operations. The team's acquisition approach mitigates these risks associated with decentralized hashrate contributions, which can lead to operational disruptions.

Third, Yidocy+ is designed for scalability.

Initially focusing on Bitcoin, the platform plans to gradually ramp up its hash power to boost APY for investors. It is important to note that the total supply of Yido tokens is fixed and not tied to the size of hash power pool. This ensures that as the total hashrate increases, the value of each Yido and investors' APY should always rise, assuming other conditions remain constant.

Minting new tokens at a fixed rate relative to total hash power would theoretically keep token value stable. But in practice, price mechanism works differently. To increase token circulation itself will normally lead to undue sell pressure and affect the market price. A situation of this kind will not happen to Yidocy+.

The roadmap of Yidocy+ is rooted in progressive growth. Yidocy+ does not aspire to be a juggernaut in the platform industry, nor the size of the pool is its key business metrics. If anything, Yidocy+ values quality service and high-yield over sheer size, focusing on steady, sustainable growth rather than rapid expansion.

Relative to this, another dimension of growth is that Yidocy+ will scale to operate non-Bitcoin pools. The list may include Aleo and Filecoin in addition to other PoW assets.[5] The horizontal scalability will not only instantly contribute to the balanced portfolio but also strengthen the fundamentals of the platform economics in the long run.

The crypto industry is fast changing. Bitcoin has been faced with challenges that still stick around, such as the balancing between decentralization, security, and scalability and slow mass adoption of layer-2. In the meantime, PoS assets are fast paced to gain ground and other propositions keep rolling out, pushing the blockchain industry into a new round of performance-driven competition.

Amid these changes, the future success of Yidocy+ hinges on its ability to select new digital assets and develop protocols to seamlessly integrate them in the platform, thereby enriching its properties as high-yield sources. In the process, Yidocy+ will remain open-ended, scalable, and committed to helping mass users getting connected and benefit from the changing dynamics of the blockchain space.

5. It is undecided which digital asset pools will be added in the platform at the time this paper is written. An in-depth analysis will be needed to evaluate the potential of these additional assets as a key component of the Yidocy+ platform.

Roadmap

Since its inception in 2021 to date, Yidocy+ as a project has achieved major milestones. There are even more milestones ahead and critical events to be achieved in 2024. They are summarized as follows:

Dec. 2021 Test run of mining operation commenced (Antminer S19jPro)

Apr. 2022 Initial version of Yidocy+ smart contracts and dApp completed

May 2024 Software upgrade and test-net operation of program commenced on Sepolia Ethereum

Jul. 2024 CertiK audit of the smart contracts completed and audit report issued

Jul. 2024 Software upgrade completed

Aug. 2024 Hosting contract to be signed off for mining operations

Aug. 2024 Deployment of Yidocy+ on Ethereum; issuance of Yido token

Sep. 2024 Development of the second mining pool to be commenced

Nov. 2024 Launching of the second mining pool

Disclaimer

Purpose

This white paper is being delivered to provide general information in relation to Yidocy+ project to the recipient and the information herein is current as of the date on the cover. This white paper does not constitute or form any opinion or advice to sell, or any solicitation of any offer by the issuer of Yido to purchase any Yido. No person is bound to enter into any contract or binding legal commitment in relation to the sale and purchase of Yido tokens and no payment is to be accepted on the basis of this white paper.

Representation

The white paper does not purport to contain all of the information that may be required to evaluate all factors that might be considered relevant to a recipient considering the purchase of Yido. Also, it is inclusive of certain projections and forward looking statements with respect to the anticipated future performance of Yido. The white paper is work-in-progress subject to review and revision and due to frequent changes in related policies, laws and regulations, technology, economics and other factors, the information provided in this white paper may not be accurate, unreliable or non-final, and may change over time. No representations or warranties are made as to the accuracy or reasonableness of such assumptions or the projections or forward looking statements based thereon or that any forecasts will be achieved. We reserve the right to update the white paper from time to time. No regulatory authority has reviewed, examined or approved any of the information set out in this white paper. No such action has been or will be taken in any jurisdiction.

To Potential Purchaser

A recipient considering the purchase of Yido should contact professional advisor who specializes in advising on the acquisition of cryptocurrency before proceeding with the purchase. Any decision by a recipient to buy Yido (apart from professional advice provided by a reputable third party) shall not solely rely on the information and terms contained in this white paper.

The recipient hereby acknowledges and agrees that Yido should not to be construed, interpreted, classified or treated as: (a) any kind of currency other than cryptocurrency; (b) debentures, stocks or shares issued by any entity; (c) rights, options or derivatives in respect of such debentures, stocks or shares; (d) rights under a contract for differences or under any other contract with the purpose or pretended purpose to secure a profit or avoid a loss; or (e) units or derivatives in a collective investment scheme or business trust, or any other type of securities.

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Anti-Money Laundering Law

Buyers should agree not to participate in any form of money laundering, illegal currency transactions, and any other limited activities through Yido. Each participant should be aware that Yido may not be directly or indirectly sold, exchanged, or disposed of for money laundering purposes.