



Redefine the Mining Industry Ecology
Based on Blockchain Mining

Pandora

White Paper
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Project Abstract

Some of the technologies that help make things more digital include software-defined devices, big data, cloud computing, blockchain, cybersecurity, latency-sensitive networks, virtual reality, and augmented reality, as well as other things like virtual reality and augmented reality.

The communication network is what binds all technologies together. It is a significant driving force in the digital economy's innovation:

- 5G, artificial intelligence (AI)
- Blockchain
- Cloud service (Cloud)
- Big Data
- Together, we're paving the way for a new era of global IT.

New storage systems and incentive models have become one of the key points for market success with the convergence of massive data and the advent of the Internet of Value era. One of blockchain's future development directions is distributed storage.

- Effectively solves the drawbacks of highly centralized data storage in centralized storage
- Effectively address the drawbacks of insecure data storage

The industry's development trend is being led by Pandora's liquidity mining solution, which is based on distributed data storage.

Pandora (abbreviated as PDR) is also a non-disruptive decentralized distributed storage, data sharding, and data encryption platform. Users can store data in a secure and decentralized manner using encryption and a series of decentralized applications, and they can manage the data using private keys. The block transaction function is used as follows:

- Transaction Ledger
- public/private key encryption
- Cryptographic hash functions for security

It will also be less expensive, faster, and safer than traditional cloud storage services.

PDR can use blockchain technology to subvert the existing model and drive changes in the following four aspects:

Data security: Because the data generated by the terminal is stored by a third party, data ownership and usage rights are separated.

Identity authentication: If there are millions of IoT terminals online and centralized authentication is required, the traditional centralized authentication mechanism will be impossible to implement.

Privacy protection: How to maximize the value of data while protecting personal privacy? That is the encryption algorithm zero-knowledge proof.

Shared computing: Shared computing utilizes shared CDN and P2P technologies to make good use of users' scattered and idle bandwidth and storage to form cloud computing nodes with storage, computing, transmission, and security functions, and achieve high-frequency and high-interaction processing. of massive data capabilities.

I. Project Background

Satoshi Nakamoto's Bitcoin payment system, which relied on blockchain technology to achieve decentralized electronic currency payment, was successful in 2009. Using cryptography, Bitcoin, as the first digital currency payment system, has successfully replicated the function of gold. The cryptographic algorithm ensures Bitcoin's scarcity, divisibility, and portability, making Bitcoin digital gold from an economic standpoint. As a result, 8 years after its inception, Bitcoin's value has risen to nearly 20,000 US dollars from a low of a few cents, demonstrating the wealth effect. Related industries in the upstream and downstream of blockchain digital currency have begun to flourish as a result of the entire process. The mining industry, which represents the blockchain's underlying infrastructure, is the first to bear the brunt.

A. Infrastructure of the crypto

Mining, also known as infrastructure in the blockchain world, is a native industry of the blockchain that integrates the underlying liquidity mining and hardware support. Mining and digital currency are actually mutually beneficial. Liquidity mining is used to ensure the security of PoW digital currency. The security of PoW digital currency will not be guaranteed without the support of centralized liquidity mining in mining pools, so mining is the most important link in the entire ecology.

B. Mining has spawned a new industrial chain

Mining, as the crypto-asset community's infrastructure, does not exist in isolation. Through the evolution process of the entire mining business, mining has evolved from the original CPU and GPU mining to the current ASIC mining, from the original personal mining to the current mining pool mining, from the original no service to the present complete supporting service. We can observe how the mining industry has spawned a new industrial chain to support the overall mining industry's development.

- Mining machine
- Mine
- Mining pool
- Other production equipment
- logistics
- Accessories
- Finance
- Other supporting services

All of this came about as a result of the mining industry's growth and the rise in currency prices, which allowed the entire mining industry to flourish.

C. Huge space for mining development

As the value of the currency rises, the wealth effect will become more apparent, attracting more active participation from global users. At the same time, it has fueled the rapid development of the mining industry's entire upstream and downstream sectors. There is no such thing as an exception that does not reflect the certainty and breadth of the future development of the entire mining industry. No exception exists that does not reflect the certainty and breadth of the entire mining industry's future development in terms of everything from the construction of mine custody to mining machine R&D updates, from technical optimization of the mining pool to logistics service upgrades, from diversified financial services to accessory innovation, and from professional introduction of talents to active capital layout.

D. Mining Bull and bear markets can both be effectively combated by mining

The entire digital currency market will experience bull and bear markets, with peaks and troughs. When the industry experiences bulls and bears, some industry participants will

choose between risk appetite and risk avoidance. Compared to high-risk and high-liquidity digital currencies, mining has less liquidity, but the benefits are more long-term and stable.

II. Industry Pain Points

A. High input cost

At the moment, the most common form of mining is still based on physical mining machines, which forces many users who want to mine to spend a certain amount of money on mining machines, after which they must either build their own or find suitable hosting venues. The risks associated with digital currency, as well as the volatility of currency prices, are substantial. Users still need to pay a lot of capital and time costs in advance in the face of so many unknown factors, raising the industry's overall entry threshold and discouraging many users.

B. High professional requirements

Mining also requires a high level of professionalism from miners, which can be broken down into two aspects:

- Specialization of managed mines
- Specialization of Mining Machine Maintenance

Because of the professional mining farm, everything has certain standards, whether it's the distance between machines or the ventilation and humidity of the site, which can not only extend the life of the mining machine but also allow it to run more consistently. In order to keep the mining machine running 24 hours a day, the maintenance specialization needs people who know how to deal with any problems that might arise with the mining machine, like mining machine poisoning or hardware failure.

C. Irregularities in the industry

Legislation is lagging behind due to the current policy on mining and digital currency supervision, which is still in its early stages, and the overall development of the industry is also at a rapid pace. As a result, the industry's chaos, routines, and unspoken rules have caused headaches for both new and experienced miners, and complaints have nowhere to go.

D. Incomplete service

In its early stages, mining is an industry that heavily invested in fixed assets. Due to insufficient matching of financial services, the liquidity of the fixed assets invested by miners is poor. Miners will be stretched thin if they require a certain amount of cash flow. With the exception of mortgages and digital currency sales, there is no way to realize fixed assets in time to meet capital needs. Other mining-related services, such as the construction and transfer of mining machine farms, the warranty and maintenance of mining machine accessories, the reporting and release of mining data, and so on, are also in a relatively rudimentary state.

III. Overview of PDR

Pandora is issued on the BSC, and has received ASIC authorization certification. This indicates that Pandora has reached a state of compliance. Pandora has built a three-dimensional financial system that serves businesses and individuals, relying on strong back-office resources, the project management team's extensive financial risk management experience, and strong Internet technical team support. The goal is to use blockchain mining to reshape the mining industry's ecology.

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Through its global market layout and extensive market resource support, Pandora has established strategic partnerships with more than a dozen national markets around the world. At the same time, it offers professional services to customers seven days a week, twenty-four hours a day, seven days a week. Pandora is primarily intended for businesses and organizations that provide financial services. At the moment, it has strategic partnerships with well-known trading platforms like Coinbase, Huobi, and Binance. The ultimate goal is to create a collection of Pandoras. It's a blockchain mining financial service platform that provides services for mining, financial transactions, information, etc.

A. Solutions

1. Lower the industry threshold and improve asset liquidity

PDR offers users liquidity mining, which lowers the mining industry's entry barrier by allowing more users interested in mining to participate without having to invest in expensive fixed asset costs and still reap the benefits of mining. At the same time, it raises the value of users' assets, allowing them to develop more quickly.

2. Large-scale and professional operation

Large-scale and professional operations are the trend and direction of the future mining industry, as opposed to the current mining ecology, which is small and scattered, divided and governed. At the same time, PDR will continue to work with other environmental partners to achieve a scale effect, lowering the platform's procurement, construction, and operating costs. Businesses, on the other hand, will be able to get the power and compliance certifications they need because of the size.

3. Cross-currency mining services to improve mining freedom

Due to the differences in consensus algorithms between different currencies, the required mining machines are also different, limiting the freedom of miners. PDR can help miners provide mining services for different currencies under different conditions, so they can be more flexible with their mining.

4. Empower financial attributes and provide users with financial services

Any industry's growth is inextricably linked to financial support. To help ecological members survive and develop better, PDR will continue to expand its own financial services and products, as well as provide a full range of financial services and support for miners, mining farms, mining pools, and mining machine manufacturers. According to local policies and regulations for business development, PDR and its partners will obtain the necessary business licenses.

B. Value service

1. Liquidity Mining Service

The PDR ecosystem will greatly facilitate the exchange, interaction, flow, and storage of existing blockchain and digital asset value attributes. New assets will be created as a result of contracts and configurations. PDR will also create applications that use a decentralized, market-based management protocol, as well as provide unique incentives to local and global digital economy participants.

Therefore, PDR has the following advantages:

- Users By holding PDR in their wallets, users can participate in indiscriminate mining and income distribution, and there is no contract period limit
- Perpetual mining; Users can keep mining for as long as they want if they have PDR. There is no contract period limit, no secondary fees, lower mining costs, and a longer mining period with perpetual mining.
- Increased revenue, more revenue. Thanks to the revenue enhancement mechanism, the mining pool now has more revenue for PDR holders.
- The income is superimposed, and the release is PDR users can enjoy the mining pool's linear release income, which does not have to be released on the first day.
- One investment, double income. PDR users can not only participate in mining to earn mining income, but they can also participate in mining compound interest investments at any time, benefiting from PDR's value-added income and realizing double income.

PDR is well positioned to become an economy that facilitates information profit and increases the efficiency of information assets. As time goes on, these information assets will be used in everything from everyday work and life to "data food" for AI and IoT devices, which will allow them to have more of an impact on the world around them.

2. Financial Services

The majority of PDR's core team members have years of experience in the Internet finance industry, so the company has its own financial genes from the start. PDR will continue to expand new financial businesses and financial derivatives, such as hedging, financing, flash swap, large-amount OTC business, and so on, based on current financial services such as currency loans and wealth management. Holders of tokens offer more comprehensive financial services. According to local policies and regulations for business development, PDR and its partners will obtain the necessary business licenses.

3. Information service

Although the mining industry has progressed over the years, information about the industry as a whole remains relatively closed and asymmetric. The mining industry lacks an authoritative and systematic information release and sharing platform for everything from local electricity prices to mining machine trading, from industry blacklists to industry resource information. PDR will gradually integrate the industry's leading institutions into the entire ecosystem in the future, allowing miners to avoid detours, enter pits, and obtain truly reliable resources and information from the platform. PDR network information, mining machine sales, mining machine evaluation, and other information services are all part of the information service scope, as are other services.

Through the construction of the blockchain's bottom chain, PDR creates value centralization. On the one hand, tokens reduce platform user traffic, and on the other hand, the unification of tokens provides convenience to consumers. For developers of industrial applications, traffic is money, so having a lot of it is the key to attracting other industries to use the mining system.

C. PDR Issuance Mechanisms

PDR offers mining services that include liquidity mining, mortgage lending financial services, and mining ecological data. At the same time, the corresponding platform token, PDR, is issued on the BSC.

PDR has a total mintage of 21 million: 10 million for market value circulation and 11 million for community incentives.

IV. Ecological Application

A. PDR business model

Users will be able to participate in PDR mining in a more flexible and efficient manner. Simultaneously, the application of PDR distributed storage technology effectively solves the problem of centralized data storage (including data storage, data sharing, security privacy, decentralized exchange, etc., to create the basis for the "interconnection of all chains" of the main bodies on the chain).

PDR is also a non-disruptive, decentralized, distributed storage, data sharding, and data encryption platform. Users can store data in a secure and decentralized manner using encryption and a series of decentralized applications, and they can manage the data using private keys. For security, it employs block transaction features like transaction ledgers, public/private key encryption, and cryptographic hash functions. It will also be less expensive, faster, and safer than traditional cloud storage services.

PDR is committed to using distributed storage as a breakthrough to greatly optimize the existing blockchain technology and thus derive a large number of new commercial applications in the future based on the cross-chain distributed storage protocol based on blockchain 3.0 technology.

B. PDR Integrated Platform

The number of institutions joining the PDR platform will continue to grow as the platform develops, and eventually a diverse ecosystem will emerge. PDR holders will have certain rights and privileges in the many ecosystems that will access the main chain in the future, such as exchange fee reductions and mining pool fee reductions. Through the main chain, PDR will collaborate with more ecosystem institutions, giving them more rights and use value.

The following is the procedure for implementing PDR-based application scenarios.

- Build trust: build a completely decentralized trust foundation based on the blockchain digital encryption algorithm;
- Design ecology: establish a consensus mechanism based on distributed computer nodes and design an ecological model;
- Formulating rules: formulate rules and reward and punishment measures based on smart contracts, and the system executes the rules automatically;

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- Start the ecosystem: PDR circulates, access to various physical applications, and starts the ecosystem.

V. Technical Architecture

A. Liquidity mining system

- PDR has come up with a new way to mine for liquidity. This way, users can mine in a more flexible and efficient way.
- Users can benefit from the distribution of mining income by holding PDR tokens in their wallets. There is no time limit. Flexible and convenient fund management. At the same time, the income enhancement mechanism allows them to benefit through the income enhancement mechanism.
- As a liquidity mining token, PDR can be freely traded and circulated in the secondary market at any time, allowing users to sell and transfer the power in their hands at any time. This not only greatly improves the liquidity and flexibility of miners' funds, but also allows miners to better manage their funds and risk!

B. Trusted Stake Proof of Stake Consensus (TDPOS)

PDR adopts credible equity proof consensus. TDPOS is a consensus protocol that is secure, dependable, highly robust, and flexible. TDPOS ensures distributed distribution through hierarchical trust consensus and hierarchical auditing strategies, as opposed to traditional consensus mechanisms. The data source is trustworthy, and participating nodes' fair rights and data privacy are guaranteed. At the same time, the transaction performance of more than 1 million TPS qualifies it for a high-concurrency sharing ecology.

We define the hierarchical trusted consensus (PT) of TDPOS as a function of identity proof (PIA), compliance proof (PCO), and credit proof (PCR): $PT = F\{f(PIA), f(PCO), f(PCR)\}$

The three layers of trusted proofs containing documents or transaction behaviors are described as follows:

Proof of stake (PIA): The higher the number of nodes locked coins, the higher the score

Proof of Compliance (PCO): It verifies the transaction behavior and the corresponding organizational policies and legal requirements

Proof of Credit (PCR): It is a dynamic credit verification that determines the transaction behavior on the role chain

When combined with the decentralization characteristics of the blockchain system, we encourage the release of transactions with high credit consensus through the layered credit management of TDPOS with a layered trusted consensus and the TOKEN mechanism, which can greatly reduce the cost of information screening for roles within the ecosystem, while improving transaction efficiency and ensuring transaction security.

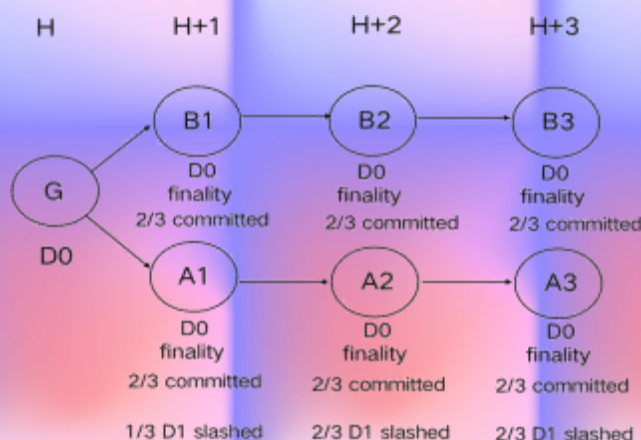
C. Design Principles

PDR is committed to distributed storage and blockchain underlying services for data storage and mining, ensuring that the underlying development maintains its ideal underlying technology stack while facilitating the development of upper-level blockchain applications. PDR's underlying platform is built on the principles of versatility, modularity, pluggability, and security, making the bottom layer of the blockchain as light as possible to build. Each consensus module and function module in the underlying organization can be customized and pluggable, making it easy to adapt to different scenarios.

Compatibility principle: The pluggable principle should be considered when the compatibility principle cannot be satisfied and the same type of function must be provided by different modules. Switching between different consensus engines, for example, should be possible, and users should be able to combine specific functional modules according to their own needs to achieve specific functions or performance requirements.

Pluggable principle: The pluggable principle should be considered when the compatibility principle cannot be satisfied and the same kind of functions must be provided by different modules. Switching between different consensus engines, for example, should be possible, and users should be able to combine specific functional modules according to their own needs to achieve specific functions or performance requirements.

Security principle: The blockchain's bottom layer and applications should be designed with security first in mind to protect users' interests and ensure the system's resilience even in the face of malicious attacks. This is particularly important in the blockchain's bottom layer and applications that do not have a centralized management system.



D. The Underlying Architecture Scheme

The PDR system's underlying architecture is its cornerstone, supporting distributed consensus of information on the chain. The underlying general architecture of PDR is depicted in the diagram below:

PDR consensus engine - The PDR consensus engine is the backbone of the underlying chain's operation. Block and state are the basic data storage elements of the blockchain operating mechanism and represent the consensus content reached between distributed nodes through a consensus protocol; the P2P network protocol is the basic protocol for self-organization and communication between nodes. These two modules work together to lay the groundwork for the blockchain system's operation.

PDR on-chain system - The PDR on-chain system is the underlying chain's functional core. This section contains a set of pluggable underlying logic that is tightly linked to the consensus mechanism. Basic cryptography algorithms for distributed entity identification and authentication, on-chain assets, transactions, cross-chain protocols, and other topics are covered in this section. The interaction method used by the interaction and connection of assets between chains, as well as the transmission and circulation of information, is known as the cross-chain protocol. In addition, smart contract runtime environments (like EVM, JVM, x86 VM, and Docker, among others) are good places for smart contracts to be executed in a normal and orderly way.

PDR off-chain interaction - The underlying chain's external window, which includes smart contracts and interactive interfaces, is known as PDR off-chain interaction. Users can interact with smart contracts through interfaces to achieve the required distributed business logic or review contract requests, user identities, and the status of other contracts. For example, blockchain can be used for governance.

VI. Development plan

A. The first stage 1.0 start-up stage

It can become the first platform to continuously and steadily obtain an income every day with the help of ASIC and the community, using the advantages of mining to get a return on investment in the shortest time possible. With the addition of new equipment, it encourages PDR recycling, stable output, and return purchases, forming a virtuous circle that is both sustainable and profitable.

B. The second stage 2.0 stable stage

Through education popularization and market operation, more communities and off-site investment can enter through education, attracting businesses and foundations. Simultaneously, three self-owned mines with a capacity of 5,000 pieces of equipment are being built to create a stable income ecosystem and a thriving economy. Bitcoin mining input and output are done in a semi-centralized way, which makes it easier for the platform to grow over time.

C. The third stage 3.0 expansion stage

By accumulating income in the first and second stages, we will collaborate with communities and foundations to expand the industry and establish 20 independent mines of the enterprise, each of which can accommodate 5,000 pieces of equipment. Mining machine companies and miners conduct equipment custody operations and maintenance, as well as create independent mining pool nodes of the BSC public chains which can help businesses improve their profitability more quickly, steadily, and over time. The creation of multiple sustainable and stable income portals, the integration and investment in upper and lower-end industry chain companies, and a series of expansion plans.

D. The fourth stage 4.0 outbreak stage

The company has entered the listing plan, and the joint foundation and friends and business enterprises have carried out joint or independent listing plans, allowing the enterprise token to generate value, allowing investors to obtain a rich income in addition to mining income, and providing community and foundation. Assist in encapsulating the value of community entrepreneurship and its measurable outcomes.

E. Vision planning

Platform tokens will be issued by BSC. Simultaneously, it purchases 10 million shares of Coinbase on the New York Stock Exchange. PDR tokens will be locked for three months after purchase in order to achieve mutual assistance and win-win outcomes, as well as to keep PDR token circulation on the platform tight and ensure that no more will be issued. To gain the enthusiastic participation of traders all over the world, he always keeps the originally purchased 10 million shares of Coinbase from flowing into the market and only allows trading on the platform!

VII. Team Introduction



CEO, Vincent

With a master's degree in business finance from UCLA (University of California, Los Angeles). He used to work for Amazon, the global e-commerce behemoth, where he was in charge of network and e-commerce operations. He joined Morgan Stanley, an international investment bank, where he was in charge of corporate asset management and information consulting, as well as mergers and acquisitions and overseas listing services for many large companies around the world. He has a unique perspective on digital currency and blockchain technology, and he is dedicated to putting blockchain technology to practical use.



Chief Architect, A-Ray

Majored in computer science and minored in fine arts and visual arts at the Massachusetts Institute of Technology. With over ten years of experience in game creation and development, I am proficient in Objective-C and JAVA programming technology. He has worked for Hong Kong Yunki Games and South Korea's NEOWIZ game company as a senior executive. He has led the team to finish the prototype design and creation of well-known video game characters.



Scott Bingley, Chief Technology Officer

The University of Chicago in the United States awarded him a bachelor's degree in information software engineering, and Boston University in the United States awarded him a master's degree in software engineering. He has 15 years of software development experience and has worked as a chief technical engineer for Cisco and Motorola, where he led the architecture design and system platform research and development for several major projects. Scott is an expert in math, logic, and data analysis, as well as the world's most advanced software development technologies. When he worked at Oxford University and the IBM Blockchain Research Laboratory, he was a senior researcher. He has done a lot of research on encryption, distributed storage, and other technologies.

VIII. Disclaimer

This white paper is provided for informational purposes only and should not be used to make decisions for users based on the information provided. PDR makes no express or implied representations or warranties, and disclaims all liability arising from the contents of this white paper. No representations about the PDR ecosystem's future performance and returns are accepted by the PDR platform team.

On a case-by-case basis, the development plan proposed in this white paper may be tweaked. This white paper's publication, distribution, or dissemination does not imply that laws, regulations, or related regulations will be implemented in your area.

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The PDR platform team does not guarantee or assume any direct or indirect asset loss as a result of using the platform, and the user has no right to hold any members of the PDR platform team liable.