BWpows APP

White paper

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01 Foreword

This whitepaper aims to describe in detail the design, objectives, operation, development plan, and future prospects of the BW pows App. Blue Whale BWpows pioneers the first truly low-power mobile APP AI mining in history.

With the vigorous development of blockchain technology, mobile applications are playing an increasingly important role in the field of digital assets. However, for a long time, the concept of "mobile mining" has often been linked to cloud computing power leasing or reward programs, rather than truly utilizing the phone's computing power to directly participate in blockchain consensus mechanisms. Mining mainstream cryptocurrencies such as Bitcoin requires a significant investment in professional hardware and high energy costs, making it difficult for the vast number of smartphone users to participate and share in the dividends of the digital economy.

The birth of Blue Whale BWpows aims to break this barrier and usher in a new era. We firmly believe that through innovative technology, every user with a smartphone should be able to truly participate in the blockchain mining process in a more convenient and energy-efficient way to obtain

digital assets.

Different from traditional mining's reliance on high computing power and energy consumption, Blue Whale BWpows introduces a unique hybrid mining mechanism that cleverly combines the triggering of Proof-of-Work (PoW) and the staking of Proof-of-Stake (PoS).

When you press the "Mining" button on the Blue Whale BWpows APP, a short and low-power PoW calculation will be initiated. However, its core innovation lies in the fact that the decryptable computing power generated by this PoW calculation is not directly used for blockchain competition, but will be automatically converted by the underlying smart contract into a PoS algorithm, thereby transforming it into token staking mining.

This revolutionary technology not only greatly reduces the energy consumption and network traffic of mobile phones, but also makes mining no longer limited to professional hardware and high costs. Through the Blue Whale BWpows APP, with simple operations, you can convert idle mobile phone computing power into continuously generating digital assets. Every eight hours, you only need to gently tap the "Collect Mining Tokens" button, and the smart contract will securely

and transparently send your mining earnings directly to your APP wallet.

The goal of Blue Whale BWpows is to create a truly inclusive mining platform that allows every user to easily participate in the blockchain process and experience the charm of digital assets.

We believe that through this innovative technology, we are jointly pioneering a new era of mobile phone mining, making participation in the digital economy more fair, convenient, and environmentally friendly.

Welcome to join the ranks of Blue Whale BWpows and explore the infinite potential of mobile phone mining together.

02 Technical Background

With the emergence of blockchain technology, enterprises and government agencies have long been continuously exploring the possibilities of this innovative technology, thereby generating new business models and realizing higher added value. 《BWpows》 innovatively utilizes blockchain technology and AI technology to create an extremely simple and low-energy mining model by combining "Proof-of-Work and Proof-of-Stake mechanisms." This model simultaneously possesses entertainment value and a profitable economic model, becoming a new proprietary term in the blockchain industry. We call this mining model (PoWS) = (Proof of Work & Stake)

2.1 What is PoW Mining

PoW: What is Proof-of-Work?

Nodes on the network can easily and quickly verify whether each other possesses the right to record transactions through Proof-of-Work. It's similar to the graduation certificate we receive during our school years. Four years of staying up late studying hard were all for obtaining that diploma. When applying for a job, the interviewer quickly verifies your

college achievements through that graduation certificate. In the above example, your graduation certificate is your "Proof-of-Work."

PoW, Illustrated with Bitcoin

Every 10 to 15 minutes, all miners on the Bitcoin network compete with each other, using massive computing power to solve the answer to a complex mathematical problem. This answer is a random number. You can imagine the problem looking something like this: Hash{(previous block's Hash value), (current block's transaction information), (nonce)} equals the current block's Hash value. Miners must find a string of numbers to substitute into the above formula so that the beginning of the current block's Hash value has 18 zeros, for example: 000000000000000000001583447dd74c13c09280a9218827244089adadaba8c8c9 There is no discernible pattern in the solution process. Miners can only continuously substitute random numbers and find the answer through brute-force solving.

PoW Mining Difficulty

The first person to solve it gets the right to record the next block and receives Bitcoins as a reward. Bitcoin releases a new block every 10 to 15 minutes. However, if the number of nodes increases and the total network hash rate increases, the time to calculate the answer will be shortened.

Therefore, the Bitcoin protocol adjusts the mining difficulty every 2016 blocks, approximately every two weeks. When the mining difficulty increases, miners must find a current block Hash value with more leading zeros, for example, increasing from the original 18 zeros to 19 zeros, and vice versa when the difficulty decreases.

Do Miners with Low PoW Hash Rate Have No Chance of Getting the Right to Record Transactions?

It must be emphasized that the mining process is actually like rolling a 20-sided die. Whoever rolls a number less than 2 first gets the right to record transactions. In other words, no matter how powerful a miner's hardware computing ability is, it can only increase the probability of obtaining the right to record transactions (rolling the dice faster). Miners with lower hash rates do not necessarily have no chance. Many people think, if supercomputers become widespread in the future, won't Proof-of-Work become useless? In fact, the difficulty of Proof-of-Work mathematical problems is quite high, so the chance of obtaining the right to record transactions is like winning a lottery. Even if someone owns a supercomputer, it can only increase the probability. It's like throwing a coin into a lake and having ten thousand people look for it. Even if you are an Olympic swimmer, you may not be the first to find the coin; you can only increase the probability of finding it.

PoW Advantages

- Easy to implement, nodes can freely enter, high degree of decentralization.
- Destroying the system requires a huge investment, very high security.

PoW Disadvantages

- To ensure the degree of decentralization, the block confirmation time is difficult to shorten.
- Ensuring miners' good intentions through miners' computing power and hardware costs, excessive energy consumption during the mining process makes this mechanism very environmentally unfriendly.

2.2 What is PoS Mining

The Proof of Stake (PoS) mechanism, also known as equity proof or staking, is a consensus mechanism algorithm proposed in 2011 on the Bitcointalk forum. It serves as an alternative to the Proof-of-Work (PoW) mechanism, with the aim of reducing the resource consumption caused by massive computations.

In simple terms, a blockchain is a ledger jointly maintained by a group of people. The way to maintain the ledger is through verification. When verifiers reach a general consensus, it ensures that the content cannot be tampered with.

The initial blockchains required a large amount of electricity to be wasted on calculations to achieve consensus and verification (such as extensive graphics card mining). This waste is the so-called Proof-of-Work (PoW). Those who participate in verification and provide Proof-of-Work can receive some benefits from it. However, people later hoped to improve this wasteful situation, wanting a consensus mechanism for verification that didn't require wasting a large amount of resources. This led to the invention of the Proof-of-Stake (PoS) mechanism.

The so-called Stake is essentially comparing who has more cryptocurrency (who has more money), giving them more power to compete for new blocks.

Therefore, PoS (Proof of Stake) is also known as the equity proof mechanism. You can think of it like the concept of stock equity. Whoever has more shares (equity) receives more rewards (dividends)

The Proof of Stake (PoS) mechanism does not consume large amounts of electricity and energy to obtain new blocks. Instead, it consumes a large amount of stake (money) to acquire new blocks. In other words, PoS uses the quantity of cryptocurrency staked to replace the computing power of miners. It requires spending money to purchase cryptocurrency and then staking these cryptocurrencies in a smart contract.

Under the PoW consensus mechanism, the nodes that mine are called miners, while under the PoS consensus mechanism, the nodes that mine are called validators, using the amount of tokens held to replace the computing power under the PoW mechanism.

Under the PoS consensus mechanism, the next block's verification nodes are selected randomly based on Coin Days.

Coin Days are also used to calculate how much reward can be obtained in a new block. Each token generates 1 Coin Day per day. You can think of it as the earlier you hold equity in a company, the more weighted your Coin Days become. Coin Days calculation method = Number of days tokens are staked × Number of tokens staked For example, if you have 10 tokens and hold them for 10 days, Coin Days = 10 × 10 = 100. Successfully helping to package a new block will earn a certain cryptocurrency reward (interest). Interest calculation method = Coin Days × Annual Interest Rate ÷ 365 For example, in a system with an annual interest rate of 5%: A validator can earn: 100 × 5% ÷ 365 = 0.0137 currency After receiving the reward, the Coin Days will return to 0 and accumulate again until the next new block is generated (a certain waiting period is required). This is used to prevent larger equity nodes from dominating the blockchain. In PoS, ways to increase the probability of getting the right to record transactions (earning rewards):

- The larger the amount of cryptocurrency staked
- The longer the cryptocurrency is staked
- The longer the node has been since it last obtained the right to record transactions

PoS Advantages

- No powerful and expensive mining equipment is required.
- Reduces the possibility of a 51% attack.

PoS Disadvantages

- May lead to the wealthy hoarding cryptocurrencies.
- May create cryptocurrency inflation problems.

2.3 What is BWpows Mining

BWpows mining (Proof of Work & Stake) is a way to participate in platform token acquisition through your mobile APP. Its core innovations lie in:

- **PoW Trigger:** When you press the "Mining" button on the APP, a short, low-power PoW calculation is initiated.
- **Computing Power Conversion to PoS:** The decryptable computing power generated by the PoW calculation is automatically calculated and converted into a PoS staking mining mode by the AI smart contract. Your computing power no longer continuously consumes resources for complex calculations but is transformed into token staking.
- **Eight-Hour Collection:** Every eight hours, click the "Collect Mining Tokens" button, and the smart contract will send your mining earnings directly to your APP wallet securely and transparently.

The following is a comparative advantage chart of PoW and PoS with BWpows:

Feature	Proof of Work (PoW)	Proof of Stake (PoS)	BWpows Mining (PoWS Technology)
Consensus Mechanism	Relies on massive computation to solve complex mathematical problems	Relies on the weight of held and staked tokens	Combines PoW trigger with AI-driven PoS staking
Energy Consumption	Extremely high	Lower than PoW, but node operation still consumes	Extremely low, PoW is only for triggering, followed by AI-driven token staking rewards
Hardware Requirements	Professional mining machines (ASIC, GPU)	May require equipment to run nodes (servers, computers, etc.)	No additional hardware required, only mobile APP
Participation Threshold	High, requires significant capital to purchase and maintain hardware	Requires holding and staking a certain amount of tokens	Extremely low, no initial tokens required, can participate through mobile computing power
Operational Complexity	High, requires professional knowledge and hardware configuration	May require setting up and maintaining nodes	Extremely simple, one-click operation
Security	High, high cost to attack	Theoretically, risks may exist if a large amount of stake is concentrated	Inherits PoS security and manages potential risks through AI intelligence
Source of Revenue	Rewards for successfully mining blocks	Rewards for staking tokens and node validation	Staking rewards generated by AI intelligent analysis of computing power potential and conversion to equivalent PoS stake
Decentralization	Relatively decentralized, but computing power concentration can lead to centralization	Theoretically decentralized, but stake concentration can lead to centralization	Potential to achieve broader decentralization through widespread mobile user participation
Computing Power Utilization	Large amount of computing power is used to solve meaningless mathematical problems	Does not directly utilize device computing power	Innovatively transforms device computing power (through PoW trigger) into PoS stake
Inclusivity	Low, difficult for individuals to participate	Returns for users holding fewer tokens may be limited	Extremely high, no initial capital threshold, everyone can participate

2.4 Mobile Mining Market

With the vigorous development of blockchain technology, the global cryptocurrency mining market shows huge growth potential.

According to the "Global Cryptocurrency Mining Hardware Market Opportunities Analysis and Industry Forecast 2023-2032" report, the global cryptocurrency mining hardware market value reached US$1.74926 billion in 2022 and is expected to continue to expand at a compound annual growth rate of 11.4% between 2023 and 2032, with the market size expected to reach US$5.02035 billion by 2032.
This fully demonstrates the strong global demand for digital asset acquisition.

However, traditional mining methods, such as Bitcoin mining, often require high hardware costs and energy consumption, excluding the vast number of users with smartphones.
The popularity of smartphones has brought unprecedentedly broad prospects for the mobile mining market.

The global mobile phone user base has reached billions, which lays a huge user foundation for the extremely convenient mobile mining model. Compared with professional mining machines costing thousands of

dollars, mobile mining allows more people to participate in the acquisition of digital assets with zero threshold. No matter where you are, with just a smartphone, you can start your mining journey anytime, anywhere.

The birth of Blue Whale BWpows has precisely seized this huge market opportunity and pioneered the first real APP mining model without initial tokens in history with its revolutionary PoWS technology.

Our unique mechanism combines the triggering of Proof-of-Work (PoW) and artificial intelligence-driven Proof-of-Stake (PoS) staking mining, which not only achieves extremely low energy consumption and network traffic but also aims to empower billions of smartphone users worldwide, allowing everyone to have the opportunity to participate in the operation of the blockchain and share the dividends of the digital economy.

Through Blue Whale BWpows, you do not need to invest huge sums of money to buy mining machines, nor do you need to hold a large number of tokens in advance. With simple operations, you can convert your phone's computing power into stake for PoS staking and easily obtain platform token rewards.

03 Token Economics

3.1 Token Introduction

$Whale Token is a token issued based on the BWSC-20 protocol on the BLUE WHALE SMART CHAIN.

Its uses are as follows：

Token Name	Token Uses
$Whale Token	BWpows APP Mining Dividend Equity Proof

3.2 Token Allocation

Total Token Supply：$Whale Token (Unlimited)

3.3 Token Uses

Proof of dividend rights for exchanging BWhale tokens

(Native token of BLUE WHALE SMART CHAIN, BWSC public chain)

3.4 Token Allocation：

Co-founders: 4% lock-up period for36 months)

Development Acceleration Fund: 16% (Used for developing the exclusive Wallet BWpows Wallet)

Ecosystem Building: 9% (Used for upgrading the BWpows APP and strategic partner airdrops)

Team and Shareholders: 3% (lock-up period for 24 months)

Staking Mining Token Distribution: 68% (Daily unlock for 36 months)

3.4.1 Responsibilities of the Issuer：

The issuer is the creator and issuer of the BWpows APP, responsible for ensuring the correct issuance and management of the tokens. They need to establish smart contracts to ensure the transparency and predictability of the token supply. The issuer will formulate and implement the token reward mechanism to ensure that every participant can benefit. Careful economic model and protocol design are carried out to ensure the value stability and sustainable growth of the tokens.

3.4.2 Role of the Operations Team：

The operations team is responsible for the daily operation and management of the token ecosystem. We will be responsible for monitoring the circulation and use of tokens to ensure that rewards are correctly distributed to participants.

3.4.3 Transparent Governance Mechanism：

The governance mechanism of $Whale Token is transparent and participatory. Token holders have the right to participate in decision-making, such as token upgrades and improvements. This governance model ensures the openness and democracy of the token ecosystem.

The issuer and the operations team play crucial roles in the $Whale Token ecosystem. The responsibilities of the issuer include ensuring the correct issuance and management of tokens, designing effective reward mechanisms, handling daily operational matters, and ensuring the security and stability of the tokens. The transparent governance mechanism ensures the fairness and impartiality of the token ecosystem. These measures aim to ensure that $Whale Token can achieve its goals of rewarding participants, promoting the concept of play-to-earn, and achieving smooth token circulation.