

PowerVerse — Web3.0 Decentralized Computing Cloud Platform Whitepaper

一、 Genesis of PowerVerse

With the rapid development of the digital era, cloud computing and artificial intelligence have become core forces driving innovation and transformation across industries. Global cloud service providers are flourishing, offering enterprises and individuals a variety of computing resources and service models. Meanwhile, AI computing power, as a key infrastructure for AI development, is experiencing explosive demand. However, the current cloud service and AI computing markets have also exposed a series of pain points, which presents a unique opportunity for the emergence and growth of decentralized computing cloud platforms.

1.1 Current Landscape of the AI Computing Industry

1. Drivers of Demand Growth

The rapid advancement and widespread application of artificial intelligence are the main drivers of increasing AI computing power demand. As deep learning algorithms continue to evolve and break through limitations, the complexity and scale of AI models are growing exponentially, resulting in higher computational requirements. For example, OpenAI's GPT-4 model contains over 1.8 trillion parameters, and its training requires astronomical levels of computing power. Additionally, AI is expanding into numerous industries—such as autonomous driving, smart security, intelligent manufacturing, and healthcare—each requiring powerful AI infrastructure to support real-time data processing and decision-making.

2. Computing Supply and Distribution

At present, AI computing resources are primarily provided by chip manufacturers, data center operators, and cloud service providers. NVIDIA, as the global leader in AI chip manufacturing, dominates AI training and inference through its GPU products. Other chipmakers like AMD are also investing heavily in AI chip R&D and market expansion. From a geographical perspective, the United States holds a leading position in global AI computing power, boasting top tech companies, research institutions, and data centers. China, through supportive policies, industrial investment, and technological innovation, is quickly narrowing the gap. Competitive AI clusters have emerged in regions such as Beijing's "ZhiYuan" AI Center and Shanghai's "HaiSuan" computing platform.

3. Technology Trends

To meet the ever-increasing demand for AI computing, chip technologies continue to evolve. In addition to optimized traditional GPU architectures, new computing architectures such as TPUs (Tensor Processing Units) and FPGAs (Field-Programmable Gate Arrays) are gaining traction for their task-specific performance and efficiency. Quantum computing also offers promising breakthroughs for AI in the future. Though still in its early stages for AI

applications, it may one day provide transformative capabilities for solving complex problems.

1.2 Current Status of the Cloud Service Provider Industry

1. Market Size and Growth Trends

According to market research firm Gartner, the global cloud service market has maintained rapid growth over the past few years. In 2023, the global cloud service market size reached \$586.4 billion, a year-on-year increase of 19.4%. It is expected that by 2027, the global cloud computing market will surpass one trillion dollars. This growth is mainly driven by accelerated digital transformation among enterprises, with more businesses migrating operations to the cloud to reduce IT costs, and improve operational efficiency and flexibility.

In the domestic market, cloud services are also experiencing strong growth. Data from the China Academy of Information and Communications Technology shows that in 2023, China's cloud computing market size reached 616.5 billion RMB, a year-on-year increase of 35.5%, maintaining high momentum. Innovations driven by AI-native cloud technologies and strategic adjustments by enterprises are ushering in a new growth phase in China's cloud computing sector. It is forecasted that by 2027, China's cloud computing market will exceed 2.1 trillion RMB. Leading cloud providers such as Alibaba Cloud, Tencent Cloud, and Huawei Cloud hold significant market shares, yet competition remains fierce with many small and medium-sized cloud service providers emerging, vying for a share of this vast market.

2. Service Models and Application Areas

Currently, cloud service providers mainly offer three service models: Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS). IaaS provides users with fundamental computing, storage, and networking resources, enabling them to deploy and manage their own operating systems and applications. PaaS builds on IaaS by offering higher-level development platforms and tools to help users quickly develop, test, and deploy applications. SaaS delivers software applications as services, allowing users to access various applications directly through browsers without installing software locally.

Cloud services are widely applied across various industries. In the internet sector, cloud services support massive data storage and processing as well as stable operation of online applications. Financial institutions utilize cloud services to accelerate business innovation and digital transformation, enhancing risk management and customer service. Manufacturing enterprises optimize production processes and improve supply chain management efficiency through cloud services. The healthcare industry leverages cloud services to enable medical data sharing and remote healthcare services. The education sector uses cloud services to support the construction and operation of online education platforms, providing students with more convenient learning resources

and environments.

3. Competitive Landscape

The global cloud service market features a relatively concentrated competitive landscape, with international giants like Amazon AWS, Microsoft Azure, and Google Cloud holding leading positions. In China, leading companies such as Alibaba Cloud, Tencent Cloud, Huawei Cloud, and Baidu Cloud dominate most of the market share with their strong technical capabilities, brand influence, and market resources. However, as the market continues to evolve and technology matures, emerging cloud service providers are gaining attention by adopting differentiated competitive strategies, such as focusing on specific industries or offering more cost-effective services.

1.3 Industry Pain Points

1. Data Privacy and Security Issues

In the cloud service model, users' data is stored on cloud servers, exposing it to risks of leakage, tampering, and misuse. Recently, frequent cloud data breaches have caused significant losses and trust crises for users. For AI computing power, data security issues are even more critical, as AI model training data often contains a large amount of sensitive information, including personal privacy, business secrets, and national security data. Leakage of such data can cause immeasurable damage to individuals, enterprises, and nations.

2. High Costs

Using cloud services and AI computing power requires paying substantial fees, which is a major bottleneck for many small and medium-sized enterprises (SMEs) and startups. Cloud providers generally adopt a pay-as-you-go pricing model, and costs increase with business growth and computing demands. Additionally, the training costs of AI models are very high, including hardware procurement, energy consumption, and salaries for specialized personnel, discouraging many enterprises from investing heavily in AI applications.

2.1 Uneven Computing Resource Allocation and Low Utilization

On one hand, leading enterprises and large research institutions often monopolize a large amount of high-quality computing resources, while SMEs and individual developers face shortages, unable to obtain sufficient computing power to carry out their AI projects. On the other hand, the overall utilization rate of existing computing resources is generally low, with many data centers and cloud servers being idle or underloaded most of the time, resulting in significant resource waste. This uneven allocation and low utilization of computing resources severely limit the popularization and development of AI technology.

2.2 Technology Monopoly and Vendor Lock-in

The cloud service and AI computing power markets exhibit a certain degree of technology monopoly, with a few large companies controlling core technologies and key resources, such as NVIDIA's dominant position in AI computing chips. This limits users' choices when selecting cloud and computing power providers, making it difficult to avoid vendor lock-in. Once users choose a specific provider, switching to others is challenging due to technical compatibility and data migration costs, resulting in loss of flexibility and bargaining power in the market.

1.4 Advantages of Decentralized Computing Power Cloud

Platforms

1. Enhanced Data Privacy and Security

Decentralized computing power cloud platforms use blockchain technology to store data distributively across multiple nodes, rather than centrally on a single server. This distributed storage enhances security, as even if one node is attacked or compromised, the data on other nodes remains intact and secure. Blockchain encryption ensures confidentiality and integrity of data during transmission and storage. Users have greater control over their data, and only authorized users can access or use it, effectively addressing data privacy and security challenges in cloud services and AI computing.

2. Cost Reduction

Decentralized computing power cloud platforms aggregate idle computing resources to form a large distributed computing network. Users can rent computing power directly from this network without relying on traditional cloud providers. This model significantly cuts intermediate costs, making computing power prices more affordable. Moreover, decentralized platforms operate with relatively low overheads, lacking expenses for large data center construction, maintenance, marketing, and management, thus providing more cost-effective computing power services, especially suitable for SMEs and individual developers.

3. Optimized Computing Resource Allocation and Improved Utilization

On decentralized platforms, any device with idle computing resources — whether personal computers, servers, or mobile devices — can participate in the computing network. Through smart contracts and distributed algorithms, the platform intelligently assigns computing tasks to various nodes, achieving optimal resource allocation and avoiding waste and idleness. The distributed network can dynamically adjust computing power supply based on user demand, enhancing resource utilization and response speed, allowing more users to access needed computing power, and promoting widespread AI adoption and development.

4. Breaking Technology Monopolies and Avoiding Vendor Lock-in

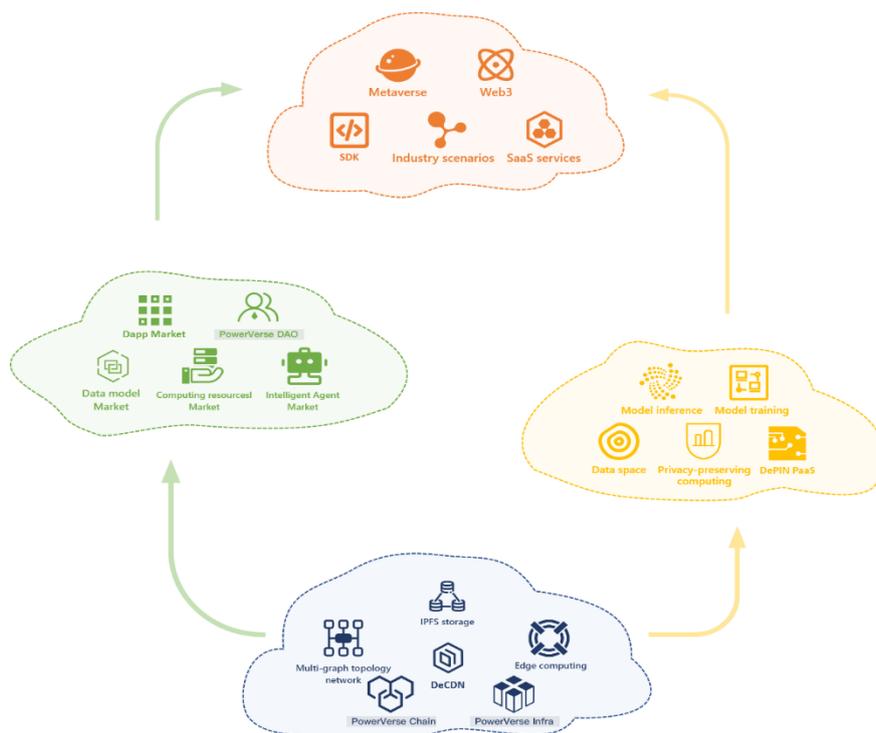
The openness and interoperability of decentralized computing power cloud

platforms allow users to freely choose different computing nodes and technical solutions, no longer limited by the technology monopolies of a few large suppliers. Users can select computing resources and services that best fit their needs and budgets from multiple providers without worrying about being locked into a single vendor's platform. This competitive environment encourages node providers to continuously improve their technology and service quality, driving innovation and growth in the overall computing power cloud ecosystem.

二、 PowerVerse Ecosystem — Dual-Track Ecological

Iteration

PowerVerse is a continuously evolving ecosystem, featuring an advanced technical architecture, a rich set of functional modules, and broad application prospects. It delivers significant value and opportunities to users, developers, enterprises, and society as a whole. From the perspectives of technological innovation, market potential, and social impact, the PowerVerse ecosystem demonstrates remarkable advantages and appeal. It is poised to play a vital role in the digital era of the future, becoming a benchmark ecosystem that leads industry development, while offering investors and participants abundant returns and infinite possibilities.



1. Fundamental Support System

- PPowerVerse Chain: A PoS consensus blockchain system that supports EVM, enabling easy deployment and operation of DApps. It provides developers with a friendly development environment, significantly lowering the development threshold and cost, thereby promoting the rapid growth of

ecosystem applications.

- PowerVerse Infra: Offers outstanding performance at the virtualization layer, achieving efficient resource utilization and flexible allocation, providing strong support for various upper-layer applications and services.
- IPFS-based Decentralized Storage: Breaks free from the limitations of traditional centralized storage by distributing data across multiple nodes, enhancing data security and reliability, reducing the risk of data loss, and ensuring the integrity and availability of user data.
- Decentralized CDN: Accelerates content delivery, improving user access speed and experience. Regardless of user location, information and services can be quickly obtained, which is crucial for enhancing user retention and attraction within the ecosystem.
- Geolocation-Aware Edge Computing Framework: Assigns computing tasks to edge nodes closest to users based on their geographic location, greatly reducing data transmission latency and improving real-time responsiveness—especially suitable for latency-sensitive applications such as real-time video streaming and online gaming.
- Multi-Graph Topology-Based Distributed Task Management: Utilizes advanced distributed task management technology to efficiently coordinate and allocate tasks, fully leveraging ecosystem resources, improving overall system operational efficiency and throughput, and ensuring orderly execution and completion of tasks.

2. Decentralized AI and Cloud Computing Platform

- Model Inference and Training: Provides powerful computing capabilities for AI development, supporting various complex model inference and training tasks. This enables developers to easily build and optimize AI applications within the ecosystem, promoting AI technology's broad application across fields—from intelligent customer service and precision healthcare to smart security and financial risk prediction—creating immense value for enterprises and society.
- Privacy Computing Based on Homomorphic Encryption and Federated Learning: In an era of growing data privacy concerns, this privacy computing technology ensures data security and privacy during computation. Enterprises and institutions can collaboratively analyze data and train models without exposing sensitive information, breaking data silos, promoting data flow and value extraction, and enabling new possibilities for data-driven innovation.
- DePIN-Architecture PaaS Platform: Offers developers a one-stop development and deployment platform, reducing development costs and technical barriers, accelerating application development and launch, attracting more developers to join the ecosystem, enriching the application ecosystem, and providing enterprises with more flexible and efficient digital solutions to enhance competitiveness.

- Data Space: Acts as a hub for data aggregation and management, providing a secure and reliable environment for data storage, analysis, and sharing. It facilitates effective data management and utilization by enterprises and developers, uncovering potential data value and providing strong support for decision-making.
3. Decentralized Market and Governance
- PowerVerse DAO Organization: Through a decentralized autonomous organization structure, community members participate in ecosystem governance and decision-making, leveraging the community's collective wisdom and strength to realize self-development and self-improvement of the ecosystem. This ensures the ecosystem's development aligns with community members' interests and vision, increasing participation and sense of belonging.
 - Computing Power Resource Trading Market: Optimizes allocation of computing resources, enabling users in need of computing power to quickly find suitable providers, while suppliers can monetize idle resources. This improves resource utilization efficiency, promotes the development of the computing power industry, and provides robust computing support for the ecosystem's operation.
 - Model and Data Market: Facilitates circulation and trading of models and data, accelerating knowledge and technology sharing, stimulating innovation vitality. Enterprises and developers can purchase required models and data in the market to rapidly enhance business and innovation capabilities, promoting technological advancement and application innovation across the ecosystem.
 - DApp Market: Aggregates a wide variety of decentralized applications, meeting users' diverse needs across fields such as finance, social networking, entertainment, and education. It provides users with freer, safer, and more convenient application experiences, while offering developers broad market space and business opportunities, forming a mutually beneficial application ecosystem.
 - Agent Market: With the development of AI technology, AI Agents show great potential in automated task execution and intelligent decision-making. This market provides a platform for AI Agent development and application, promoting deeper application of AI in real business scenarios, enhancing productivity and intelligence levels.
4. DeCloud Mega-Ecosystem
- SDK: Provides developers with a rich set of development tools and interfaces, facilitating the integration of PowerVerse ecosystem features into their applications. This expands the ecosystem's application scenarios and influence, promoting interoperability with other platforms and applications.
 - Web 3.0: As a key component of the next-generation Internet, the PowerVerse ecosystem embraces the Web3.0 concept, enabling users to

autonomously control their data and reclaim value. It offers a fairer, more transparent, and freer Internet experience, while bringing new business models and development opportunities to enterprises and developers.

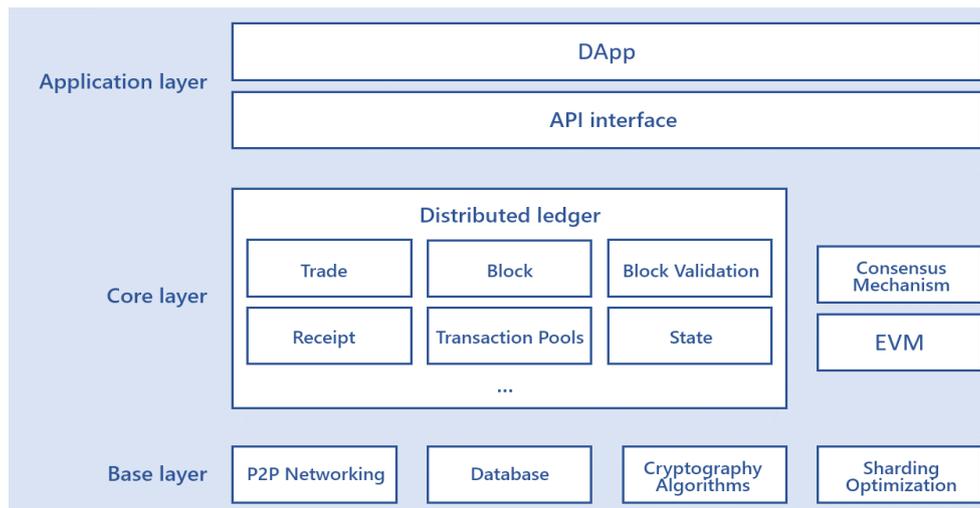
- **Metaverse:** Leveraging its powerful underlying technology and rich application ecosystem, PowerVerse provides a solid foundation for metaverse construction, supporting virtual world creation, interaction, and economic activities. It delivers immersive experiences to users and is expected to explore vast market space in the metaverse domain, becoming an important driver of metaverse development.
- **SaaS Services:** By providing various Software-as-a-Service offerings, it meets enterprises' information needs in diverse business scenarios, reduces software procurement and maintenance costs, improves operational efficiency and management, and strongly supports enterprises' digital transformation.
- **Industry Scenarios:** The PowerVerse ecosystem covers numerous industries, including but not limited to esports hotels, internet cafes, gaming, enterprise collaboration and office, cultural creativity, finance, healthcare, education, logistics, and manufacturing. By offering customized solutions for these industries, it helps enterprises solve practical business problems, enhances the overall digital level and competitiveness of industries, and achieves industrial upgrading and innovative development.

三、 PowerVerse Chain — Building a Trustworthy

Foundation

PowerVerse Chain is a distributed ledger platform that uses blockchain technology to create a decentralized network environment. In this network, multiple nodes jointly participate in data verification, storage, and transmission, ensuring data immutability and high reliability. By supporting EVM smart contracts, PowerVerse Chain enables the automated execution of complex business logic and provides a strong foundation for decentralized application development.

3.1 Overall Architecture



1) Basic Layer

- P2P Network: The PowerVerse Chain network consists of multiple nodes connected through a P2P network architecture that enables node discovery, data synchronization, and other functions, ensuring rapid information dissemination and high network availability.
- Database: Stores all blockchain data, including transaction records, smart contract code, and account states. It uses an optimized Merkle tree data structure to organize data, allowing fast verification of data integrity and consistency.
- Cryptographic Algorithms: Implements private/public key pairs, data signing, hash calculations, etc., to protect data privacy and ensure blockchain security.
- Sharding Optimization: Parallelizes transaction verification processes to improve block generation speed.

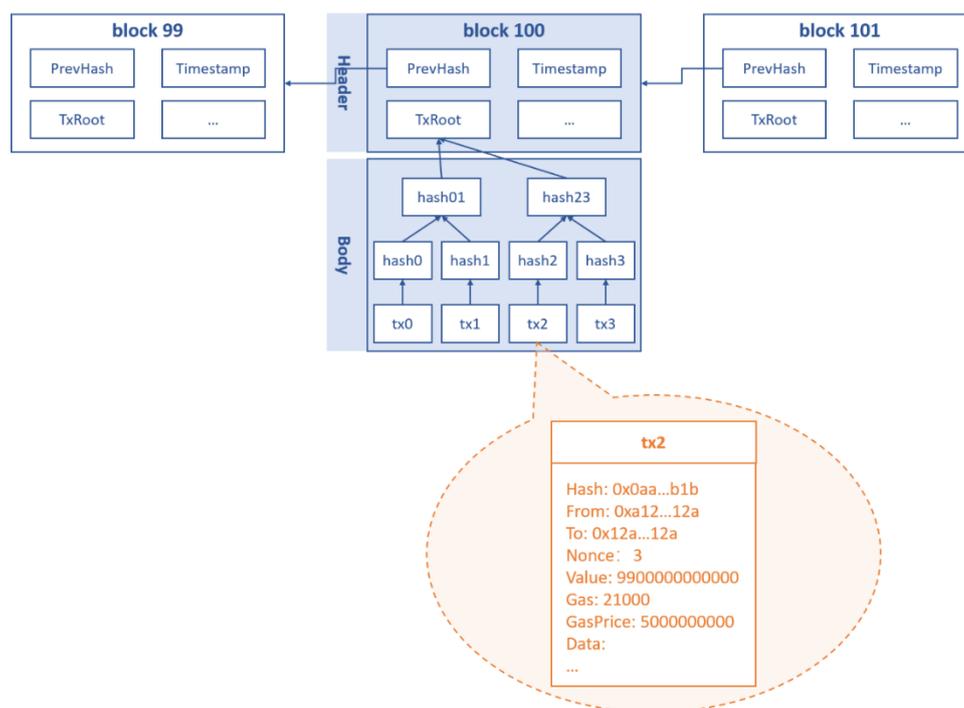
2) Core Layer

- Distributed Ledger: Contains transactions, blocks, block validation tools, receipts, state data, and information related to the transaction pool.
- Consensus Mechanism: The key to achieving decentralized consensus; PowerVerse Chain adopts a PoS consensus mechanism combining VRF (Verifiable Random Function) and BFT (Byzantine Fault Tolerance) algorithms.
- Smart Contracts: Built on EVM, enabling developers to write smart contract code in familiar programming languages such as Solidity.

3) Application Layer

- API Interfaces: Provides HTTP and TCP related interfaces as part of the RPC framework services.
- DApps: Developers can leverage PowerVerse Chain's smart contract capabilities and network infrastructure to build decentralized applications with various functionalities, including DeFi, DID, and more.

3.2 Blocks and Transactions



A block records the transactions and state results that occurred within a period of time and represents a consensus on the current ledger state. A block mainly consists of two parts: the block header and the block body. The block header contains the parent block hash (PrevHash), timestamp (Timestamp), Merkle root hash of transactions (TxRoot), and other information. The block body primarily contains the number of transactions and transaction details. Each transaction is permanently recorded in the block and can be queried by anyone. Transactions are recorded using a Merkle tree data structure. Each transaction contains a digital signature, ensuring that every transaction is authentic and tamper-proof. All transactions collectively generate a unique TxRoot hash recorded in the block through the Merkle tree hashing process. When a user verifies a block's validity, they only need to compute the Merkle root hash according to the Merkle tree hashing method and compare it with the TxRoot value in the block to confirm its authenticity. A transaction includes fields such as sender (From), receiver (To), transaction nonce (Nonce), amount (Value), and fee settings (Gas, GasPrice). The transaction creation process is as follows:

- The user constructs and broadcasts the transaction;
- Miner nodes receive the transaction. After passing basic checks like balance validity and double-spending prevention, the transaction is added to the transaction pool (TxPool), waiting to be synchronized or packed into a block;
- Miner nodes select several transactions from the TxPool according to a transaction selection algorithm and package them into a proposed block. After packaging, the proposed block undergoes transaction execution and

consensus;

- Transaction execution: each transaction in the proposed block is executed by the EVM;
- Block consensus: consensus messages are distributed via the P2P network, and the consensus mechanism determines the block proposer;
- Block import: once the proposed block is successfully packaged and agreed upon, the block is finalized to disk. During this process, the state data is updated and chain forks are resolved.

3.3 Consensus Mechanism

3.3.1. Proposer and Committee Election

In each consensus round, PowerVerse Chain uses the VRF (Verifiable Random Function) algorithm to generate a random number at each node to determine whether the node can participate in the current consensus process. VRF is a verifiable random number generation function consisting mainly of two types of functions: one for generation and one for verification.

<i>Generate functions</i>	$R = VRF_Hash(sk, M)$ $P = VRF_Proof(sk, M)$
<i>Validation functions</i>	$R = VRF_P2H(P)$ $VRF_Verify(pk, M, P)$

sk : Private
pk : Public / Exposed by default
M : Enter the data
R : VRF hash
P : VRF Proof

In the application process, the prover first generates a pair of public and private keys, then uses the generation function to produce a hash value R and a proof P. The verifier uses the verification function to verify both R and P. Thus, the VRF function has the following characteristics:

- Randomness: For different input values, the output is random and uniformly distributed across the value domain;
- Determinism: For the same input value, the output is always the same;
- Verifiability: The authenticity of the random output can be verified by a non-interactive zero-knowledge proof, proving the legitimacy of the random number;
- Efficiency: Off-chain computation is performed to improve the efficiency of the process.

In PowerVerse Chain, VRF is used for the lottery-based election of proposers and validators. This lottery process must meet the following requirements:

- There is no “god” role that can manipulate the entire lottery;
- Each participant independently performs their own lottery, and no one else can know the lottery result before the participant actively publishes it;
- After a participant publishes their lottery result, all other participants in the system can verify it without the participant revealing their private key;
- Before the lottery round begins, no participant can pre-calculate their lottery result;
- The lottery is fair and just for all participants;
- It is resistant to Sybil attacks.

To satisfy these requirements, PowerVerse Chain designs the election function as follows:

- The bit length of the output hash (hashlen) is fixed, so by converting the output hash to a number, the range of the hash can be determined:

$$[0, 2^{\text{hashlen}} - 1]$$

- The amount of tokens staked by a node should be positively correlated with its probability of being selected:

$$W = \sum w_i$$

$$p = \frac{w_i}{W}$$

w_i : node i The value of the stake after stake
W : Total Equity Value

- The probability that a node with a stake of w shares is selected follows a binomial distribution:

$$B(k; w, p) = C_w^k p^k (1 - p)^{w-k}$$

$$\sum_{k=0}^w B(k; w, p) = 1$$

The reason for using the binomial distribution as the probability distribution function is to prevent Sybil attacks, because

$$B(k_1 + k_2; w_1 + w_2, p) = B(k_1; w_1, p) + B(k_2; w_2, p)$$

Therefore, from a probabilistic perspective, it is impossible to increase the likelihood of being selected by splitting tokens.

- The [0, 1) interval is divided into consecutive sub-intervals:

$$\left[\sum_{k=0}^j B(k; w, p), \sum_{k=0}^{j+1} B(k; w, p) \right)$$

$$j \in \{1 \dots w\}$$

- If the ratio of the hash value to the maximum hash value falls within the interval corresponding to $j > 0$, it indicates that the node has been selected.

The overall election lottery algorithm is as follows:

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Sortition( $sk, seed, \tau, role, w, W$ ) :
 $\langle hash, \pi \rangle \leftarrow \text{VRF}_{sk}(seed || role)$ 
 $p \leftarrow \frac{\tau}{W}$ 
 $j \leftarrow 0$ 
while  $\frac{hash}{2^{hashlen}} \notin \left[ \sum_{k=0}^j B(k; w, p), \sum_{k=0}^{j+1} B(k; w, p) \right)$  do
     $j++$ 
return  $\langle hash, \pi, j \rangle$ 

```

csk : The user's private key
seed : Seed information used in elections
role : Identity information for the current election
 τ : Select Threshold
w : Node weights
W : The total weight of the whole network

The verification algorithm is as follows:

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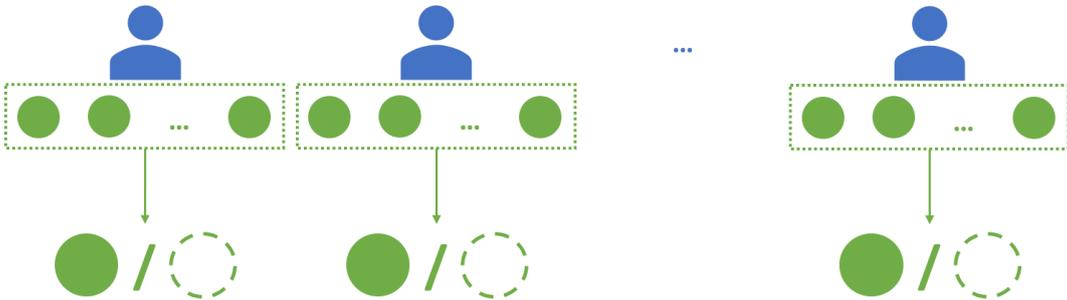
VerifySort( $pk, hash, \pi, seed, \tau, role, w, W$ ) :
if VerifyVRF $_{pk}(hash, \pi, seed || role)$  then return 0;
 $p \leftarrow \frac{\tau}{W}$ 
 $j \leftarrow 0$ 
while  $\frac{hash}{2^{hashlen}} \notin \left[ \sum_{k=0}^j B(k; w, p), \sum_{k=0}^{j+1} B(k; w, p) \right)$  do
     $j++$ 
return  $j$ 

```

3.3.2. Block Proposal Submission and Block Selection

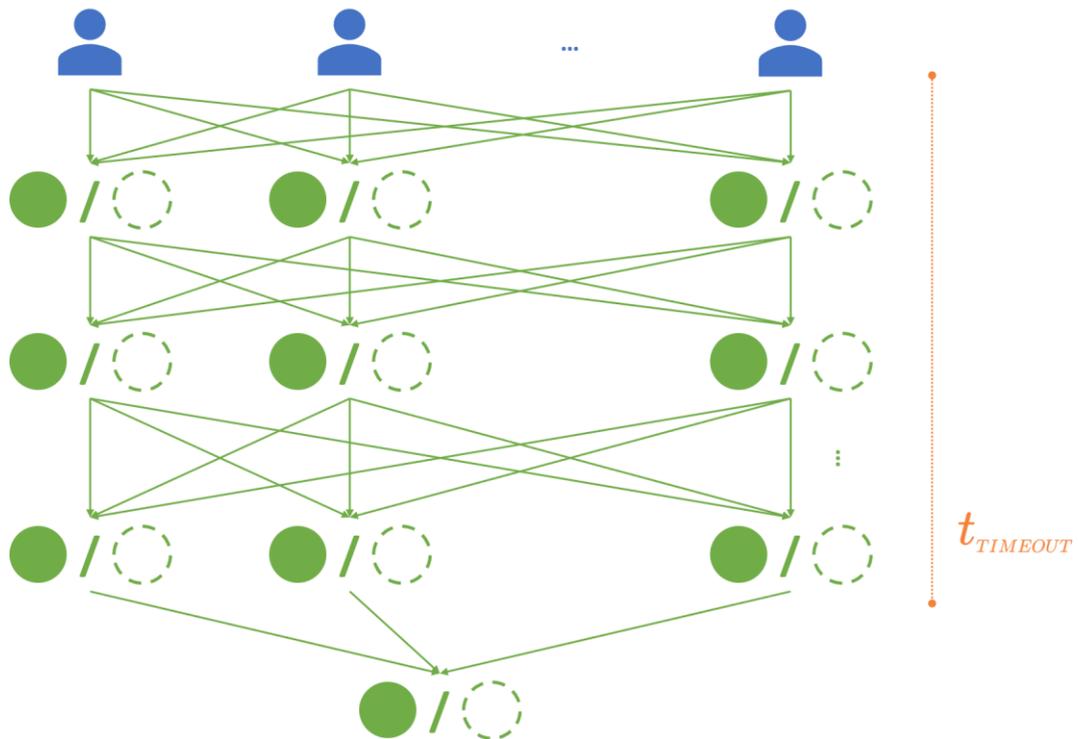
After the proposer election is completed, the proposer broadcasts their proposed block to the entire network. Since different nodes have different environments, the proposed blocks may vary. Therefore, the committee needs to select the final block proposal. The selection process is divided into two stages:

- 1) Each committee validator selects the highest-priority valid block proposal they received and broadcasts it. If a timeout occurs or all received proposals are invalid, the validator broadcasts an empty block;



- 2) After synchronizing the block proposals broadcasted by other validators, each validator decides whether to agree to the new proposal or maintain the original one. Before the timeout expires, validators repeatedly perform this process in cycles until a proposal gains the

approval of more than two-thirds (2/3) of the validators. If no consensus of over 2/3 is reached before the timeout, an empty block is produced.



3.4 PowerVerse Coin

PowerVerse Coin is the native digital asset underlying the PowerVerse Chain, with a total issuance of 1,400,000,000 coins. It features high security, transparency, and immutability, relying on a decentralized blockchain network maintained by nodes worldwide to ensure fairness in its operation and transactions. The main roles of PowerVerse Coin within the ecosystem include:

- **Staking:** Staking is one of the core functions of PowerVerse Coin within the PowerVerse Chain ecosystem. Holders can lock their PowerVerse Coins in the network to participate in maintaining the blockchain's consensus mechanism. Staking helps enhance the overall network security and stability, as stakers' interests are closely tied to the network's healthy operation, motivating them to actively maintain order. Meanwhile, stakers receive corresponding rewards. This incentive mechanism encourages more users to stake, creating a virtuous cycle that continuously increases the network's overall staking rate and security. For investors, staking PowerVerse Coin provides a relatively stable and attractive way to earn returns, serving as an important supplement to asset appreciation amid the volatility of the cryptocurrency market.
- **Ecosystem Circulation and Payments:** PowerVerse Coin acts as the medium of value circulation throughout the PowerVerse Chain ecosystem. It

connects various participants in the ecosystem, including developers, users, merchants, and service providers, facilitating efficient exchange and flow of resources and value. During the development of ecosystem applications, developers can receive PowerVerse Coin as funding and rewards, incentivizing continuous innovation and optimization. Users can pay service fees or obtain in-app value-added services with PowerVerse Coin. Merchants can expand sales channels and customer bases by accepting PowerVerse Coin payments. This broad ecosystem circulation gives PowerVerse Coin intrinsic value support, which depends not only on market speculation but closely on the prosperity of the ecosystem itself. As the PowerVerse Chain ecosystem grows, demand for PowerVerse Coin circulation will steadily increase, driving stable value appreciation and providing long-term investment return expectations for investors.

- DAO Governance Function: DAO (Decentralized Autonomous Organization) is an innovative governance model in the blockchain field, where PowerVerse Coin plays an indispensable role. Within the PowerVerse DAO organization of the PowerVerse Chain, PowerVerse Coin serves as a key voting right carrier. Holders can participate in major project decisions based on the number of tokens they own, such as protocol upgrades, ecosystem development plans, and fund allocation. This governance model embodies the spirit of decentralization, allowing every token holder to become both a participant and decision-maker in the ecosystem, jointly promoting the project in a direction that aligns with community interests. For investors, participating in DAO governance enables them to gain deeper insights into project operations and strategy, influence project decisions using their voting rights, protect their investments, and contribute to long-term value growth. This openness and community-driven nature also encourages user engagement in discussions and decisions, enhancing users' sense of belonging and loyalty, further expanding the project's influence and user base.

四、 PowerVerse Infra — The Beginning of DePIN

As one of the core elements of the PowerVerse ecosystem, PowerVerse Infra is a virtualization software platform built on the concept of software-defined infrastructure. It enables the virtualization and integration of diverse computational chips, whether it's conventional CPUs, high-performance GPUs and AI chips widely used in graphics and artificial intelligence, or even quantum chips that represent the future of computing. PowerVerse Infra unifies these heterogeneous computing resources under a single management layer.

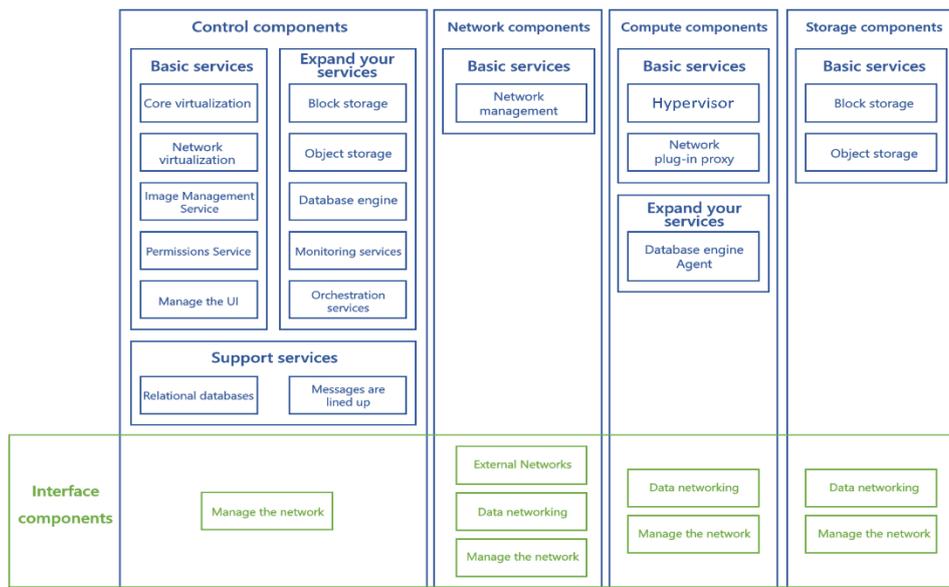
By doing so, it allows individuals or organizations with idle computing power to convert their resources into shareable and tradable digital assets. At the same time, it provides users who urgently need computing resources with a

convenient, efficient, and diversified way to access them.

4.1 Core Architecture

PowerVerse Infra is composed of five major components: Control, Network, Compute, Storage, and Interface. Each serves a vital function:

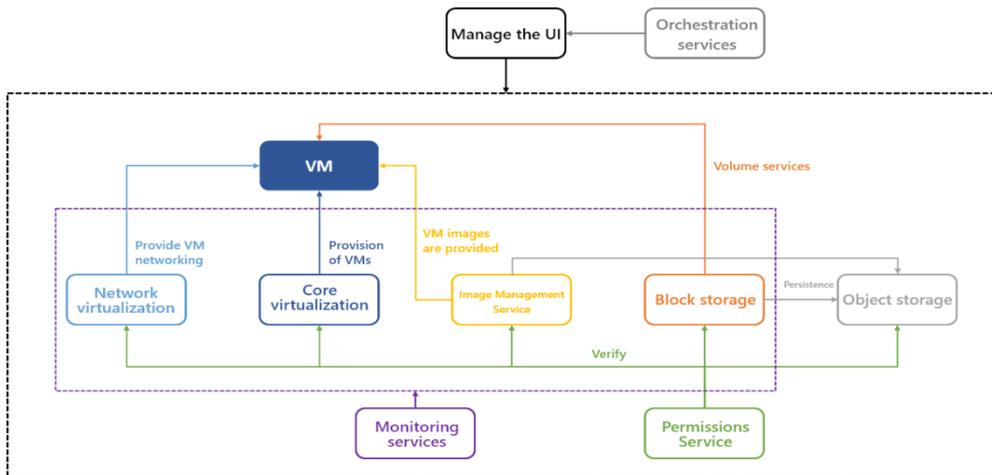
- **Control Component:**
 - The core of the PowerVerse Infra architecture. It includes various service modules such as core virtualization services, network virtualization services, and image services. The control component is responsible for receiving user requests, managing resource allocation, and monitoring system operations.
- **Compute Component:**
 - The provider of computing resources. It handles the execution of virtual machine instances and the processing of compute tasks. The control component sends API requests to the compute component, which then performs the corresponding operations.
- **Storage Component:**
 - Responsible for storing data and images. PowerVerse Infra supports multiple backend storage solutions, such as block storage and object storage. The storage component receives user storage requests via APIs and stores the data accordingly.
- **Network Component:**
 - Manages network resources such as virtual networks, subnets, and routing. It ensures communication between virtual machines, provides network isolation, and enforces network security policies.
- **Interface Component:**
 - Offers a set of RESTful APIs that enable communication and interaction between the control component and other service components.



Key Service Modules within the Five Core Components. Within the five major

components of PowerVerse Infra, nine essential service modules play a crucial role in functionality and collaboration:

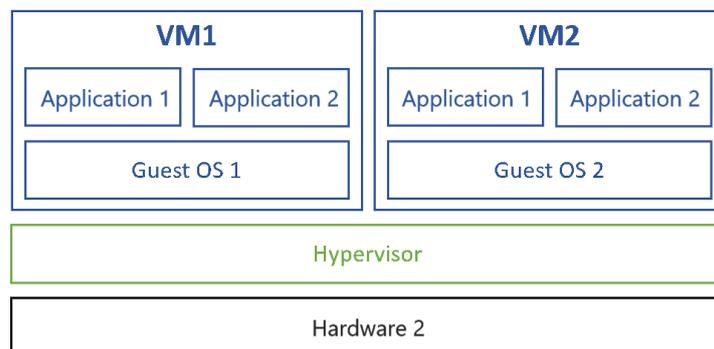
- Core Virtualization:
 - Manages the entire lifecycle of virtual machine instances for users. This includes operations such as creation, suspension, resizing, and termination of VMs. It delivers virtual services according to user needs and allows configuration of resources such as CPU, GPU, and memory.
- Network Virtualization:
 - Provides network virtualization technology to establish connectivity between services and expose interfaces for user interaction.
- Image Service:
 - A virtual machine image management system that supports multiple VM image formats. Users can upload, delete, and edit image metadata, facilitating efficient image lifecycle management.
- Block Storage:
 - Supplies reliable block-level data storage services to support virtual machine operations.
- Object Storage:
 - Enables scalable object storage with built-in redundancy and fault tolerance. Users can store and retrieve files, and this module can also persist image files and block storage volumes.
- Monitoring Service:
 - Offers support for billing, system monitoring, and provides statistical data to other services for decision-making and optimization.
- Access Control Service:
 - Utilizes DID (Decentralized Identity) technology provided by PowerVerse Chain to offer identity authentication, service rules, and service tokens. It manages entities such as Domains, Projects, Users, Groups, and Roles.
- Orchestration Service:
 - Delivers a template-based coordinated deployment mechanism, enabling automated provisioning of the DeCloud infrastructure software environment.
- Management Interface:
 - Provides a web-based management dashboard for all services, offering user-friendly control and monitoring capabilities. .



We will offer two types of virtualization: Type 1 and Type 2, each differing significantly in architecture, performance, and other aspects.

- Type 1 Virtual Machine

- In terms of architecture, a Type 1 virtual machine runs directly on the host computer's hardware without the need for a host operating system. This is why traditional cloud providers often refer to it as a "bare-metal virtual machine." This direct interaction with hardware allows for more efficient utilization of computing resources. For example, when handling large-scale data processing or high-load enterprise applications, a Type 1 virtual machine can fully leverage hardware performance and minimize the overhead caused by intermediate software layers.
- In terms of performance, since Type 1 virtual machines interact directly with the hardware, they generally offer lower latency and higher throughput. They can manage and allocate hardware resources with greater precision, enabling more optimized handling of tasks such as network communication and storage I/O.

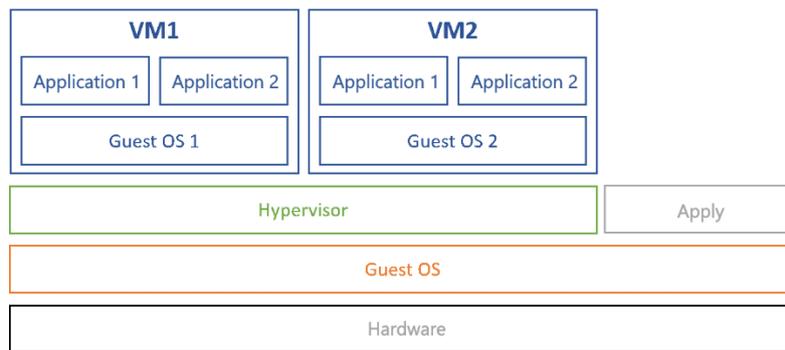


- Type 2 Virtual Machine

- Architecture-wise, Type 2 virtual machines run on top of a host operating system, which itself operates on the physical hardware. Unlike Type 1 hypervisors that run directly on bare metal, Type 2 virtualization relies on the host OS to manage hardware resources. This makes it more accessible and easier to use, especially in

personal or development environments where convenience and flexibility are prioritized.

- Performance-wise, because there is an extra layer (the host operating system) between the virtual machine and the hardware, Type 2 virtual machines generally have higher latency and lower performance compared to Type 1. Tasks involving intensive computation, high throughput, or real-time response may suffer from delays or inefficiencies. However, for light workloads such as application testing, software development, or desktop-level virtualization, Type 2 remains a practical and flexible solution.



4.2 Collaboration with PowerVerse Chain

4.2.1. Decentralized Identity (DID)-Based Virtual Machine Access Control

PowerVerse Infra leverages PowerVerse Chain to assign a unique Decentralized Identity (DID) to each user and virtual machine. This DID not only includes basic identity information but also links to the user's complete behavioral and credit history in computing resource transactions and VM usage. When a user attempts to create, access, or manage a virtual machine, PowerVerse Infra authenticates the user's identity via PowerVerse Chain. This authentication process is decentralized, relying on blockchain consensus mechanisms instead of centralized identity providers, ensuring fairness, security, and immutability.

In scenarios involving VM sharing and leasing, DID-based authentication becomes especially crucial. For instance, when one user wants to rent computing resources from another, both parties' DID information is cross-verified on the PowerVerse Chain. The lessee can assess the lessor's credit history, hardware configuration, and usage records to evaluate risks and reliability; meanwhile, the lessor can verify the lessee's identity and payment credibility to ensure a secure transaction. This decentralized model eliminates the vulnerabilities and trust issues found in centralized systems, offering a transparent and trustworthy environment for computing resource exchanges.

4.2.2. Smart Contract-Driven Aggregator for Computing Resource Transactions

We are building PowerVerse Market, an automated resource trading aggregator

powered by PowerVerse Chain smart contracts. In this system, buyers and sellers of computing resources do not need to rely on manual negotiations or third-party intermediaries. Instead, both parties submit transaction intents and details directly to the smart contract on PowerVerse Market. The contract automatically executes the transaction flow—including resource leasing, payment settlement, and record storage—based on predefined conditions. This ensures that the entire process is efficient, transparent, and tamper-proof, significantly reducing transaction costs and risks while improving liquidity and operational efficiency.

4.3 PowerVerse Infra Key Features

- **Broad Chip Compatibility:** One of PowerVerse Infra's greatest strengths lies in its support for a wide range of chip types. In today's diverse computing landscape, different applications demand different types of compute power—some rely on general-purpose CPUs, others on GPUs for parallel computation or graphics processing. As AI and quantum computing technologies mature, demand for AI chips and quantum processors continues to rise. PowerVerse Infra's chip-agnostic virtualization capabilities allow it to meet a wide variety of complex workloads, maximizing idle resource usage and unlocking new value for data centers, cloud providers, and research institutions alike.
- **Quantum Computing Readiness:** Although still emerging, quantum computing is a core part of our future-facing roadmap. PowerVerse Infra is already collaborating with several quantum computing research teams to design resource abstraction and allocation mechanisms for quantum bits (qubits). We've built preliminary models and virtualization interfaces for quantum computing power, allowing users to write and execute basic quantum algorithm simulations within a VM environment. Despite current technical limitations, this investment represents a visionary step toward supporting the next generation of computational paradigms.
- **High Security and Trust:** Through deep integration with PowerVerse Chain, PowerVerse Infra creates a highly secure and trustworthy computing resource exchange ecosystem. Decentralized identity management prevents forgery and fraud, while smart contract-driven execution eliminates human interference, ensuring fairness and transparency in transactions. Additionally, all transaction records are immutably stored on the blockchain ledger, forming a verifiable evidence trail that facilitates dispute resolution. These features provide users with strong guarantees of safety and trust, helping PowerVerse Infra attract more participants and establish a competitive edge in the computing marketplace.
- **Efficient Resource Utilization and Dynamic Scheduling:** PowerVerse Infra's virtualization engine features robust dynamic resource scheduling capabilities. It automatically adjusts resource allocations in real time based on VM workloads, ensuring optimal performance in multi-user, multi-task environments. This intelligent scheduling prevents both

underutilization and overload, enhancing overall efficiency. As a result, PowerVerse Infra helps users lower computational costs while delivering highly flexible and cost-effective compute services.

五、 PowerVerse Market Phase One — Aggregating

Computing Power Resources

Leveraging the smart contract and payment systems of PowerVerse Chain along with the VM management capabilities of PowerVerse Infra, we have developed PowerVerse Market — a decentralized platform that automates and standardizes the trading of computing resources. The platform connects computing power providers with demand-side users, enabling both parties to transact and collaborate directly without the need to trust a third party. With blockchain's distributed ledger and cryptographic technologies, PowerVerse Market ensures fairness, immutability, and data security in all transactions.

The platform primarily consists of the following functions: computing resource management, demand order management, transaction execution and monitoring, data analytics, and user reputation system

- **Computing Resource Management:** Providers can easily publish detailed information about their computing resources (including but not limited to CPU power, GPU power, and storage capacity), set pricing, availability schedules, and adjust resource listings at any time to meet market conditions or operational needs.
- **Demand Order Management:** Users can submit orders based on specific computing needs — specifying resource types, quantity, duration, and budget. The platform will automatically match orders with available resources and recommend the best options. Providers can also proactively match existing demand orders.
- **Transaction Execution and Monitoring:** Once both parties confirm a match, the smart contract governing the transaction is executed to handle resource delivery and payment settlement. Resource usage and task progress can be monitored in real time. If anomalies arise — such as insufficient computing power or network issues — the platform will promptly notify both parties and initiate contingency processes.
- **Data Analytics and Insights:** The platform gathers extensive data such as transaction histories, resource distribution, and price trends. Analytical tools generate reports and market insights to help users make informed decisions. Providers can optimize their supply strategies, while consumers can find higher cost-performance resources.
- **User Review and Reputation System:** Upon transaction completion, both parties can rate each other on service quality, performance, and responsiveness. These reviews are stored within a reputation system that impacts future access and priority on the platform. High-

reputation users enjoy benefits such as better exposure and trading privileges, while low-reputation users may face limitations — incentivizing compliance and high-quality service.

5.1 Roles

PowerVerse Market features four core roles: computing power providers, computing power consumers, administrators, and arbitrators — all working together to foster a healthy and dynamic market ecosystem.

- **Computing Power Providers:** By virtualizing and standardizing their hardware resources via PowerVerse Infra, providers can register and list computing assets on the platform. Providers earn income through leasing and may also receive periodic token dividends.
- **Computing Power Consumers:** Consumers can lease computing resources for applications such as mining, model training, or general computation via smart contracts. If no suitable match is found, they can post custom demand orders for later fulfillment.
- **Administrators:** Empowered to freeze accounts or blacklist dishonest users to uphold market integrity and fair trading.
- **Arbitration Committee:** Handles disputed transactions by determining fault and proposing remedies, which are then executed by administrators. For complex cases, the committee may submit proposals to the DAO for community voting.

5.2 Publishing Computing Resources

Providers can publish computing resources to PowerVerse Market using PowerVerse Infra through the following process:

- 1) **Virtualization of Resources:** After correctly installing and configuring PowerVerse Infra, local devices will be scanned to identify underutilized computing resources (e.g., unused CPU cores, GPU units, memory, and storage). These physical resources are abstracted and isolated into individual virtual machines.
- 2) **Resource Registration:** After virtualization, providers register these resources on the platform with detailed technical specifications such as CPU model, core count, clock speed, GPU specs, memory size, and storage type and speed. All information undergoes strict verification to ensure accuracy and authenticity.
- 3) **Resource Scoring:** PowerVerse Market uses a sophisticated scoring system to evaluate the value of published computing resources. Each technical parameter is weighted, and the sum of the weighted scores becomes the total performance score for that resource.
- 4) **Asset Certificate Issuance:** Each virtual resource is tokenized as an NFT (Non-Fungible Token), serving as an asset certificate. This ensures trust and traceability in future transactions. The NFT includes ownership, metadata, performance score, technical specifications,

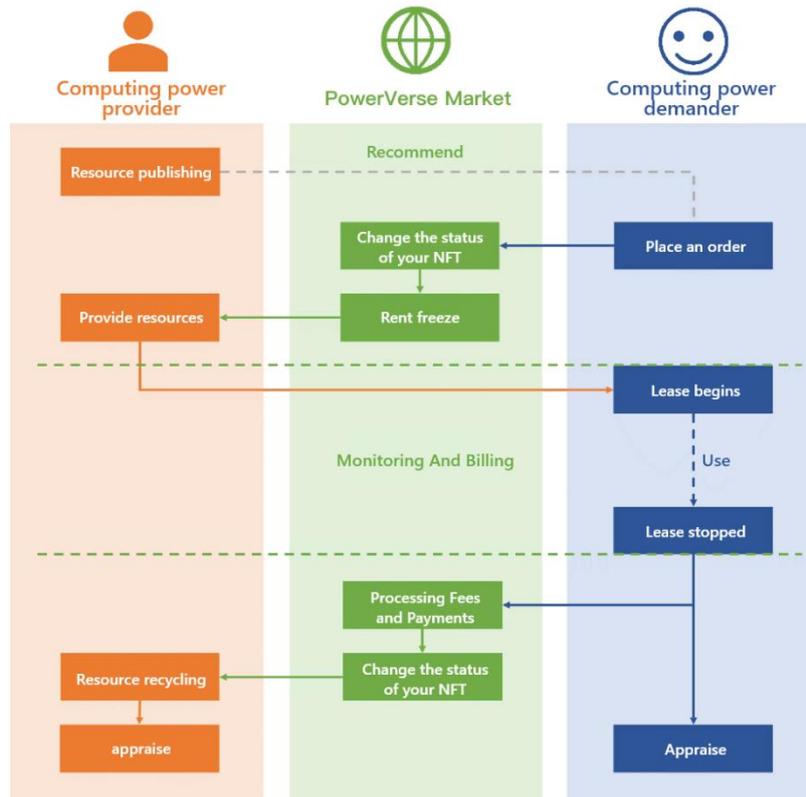
renter information, and usage status.

```
PowerVerse InfraVMs
id
owner
metadata
rentalinfo
{
  status
  priceperday
  period
  lessee
}
performpoints
performpara
{
  cpu
  {
    model
    clockspeed
    cores
    ...
  }
  gpu {...}
  memory {...}
  disk {...}
}
...
```

- 5) Listing Computing Resources: Finally, the computing resource will be officially listed on the PowerVerse Market platform's resource directory. At this point, other users or demand-side participants on the platform can view detailed information about the resource. Once listed, the computing resource will be in an idle state, allowing demand-side users to filter and match suitable resources based on their computing needs for subsequent transactions.

5.3 Computing Resource Transactions

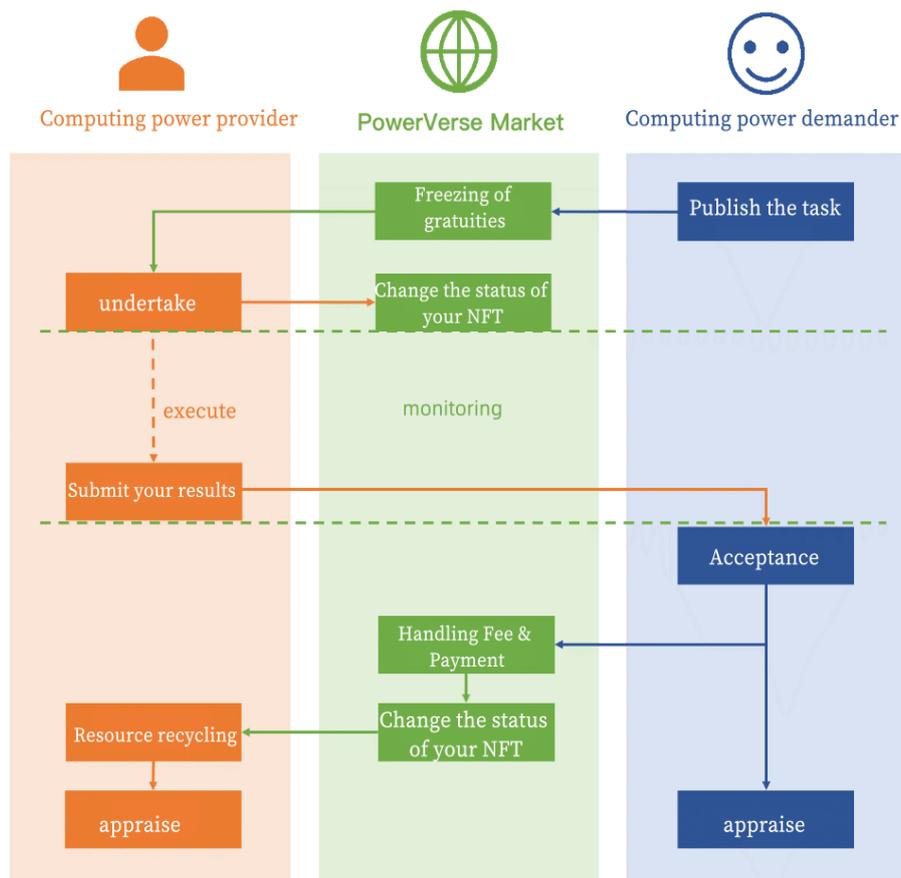
5.3.1. Leasing Transactions



- The provider publishes and lists computing resources;
- The demander selects the desired computing resource, sets the rental duration, and pays the corresponding amount in PowerVerse Coin;
- The platform changes the NFT status corresponding to the computing resource to "leased" and temporarily freezes the tenant's payment;
- The demander begins using the computing resource, while the platform monitors the service status of the resource;
- Upon lease expiration, the platform releases the payment to the provider after deducting a service fee, and the NFT status is changed back to "available for lease";
- Both parties evaluate the transaction, and the platform collects the feedback.

5.3.2. Computing Resource Demand Orders

There are two types of demand orders: One initiated by the demander as a leasing request, following a similar process as described above, thus not repeated here. The other is a task-based demand where the demander issues a task, and the provider undertakes and executes it. The process is as follows:



- The demander submits a task demand order to the platform, including task requirements, computing power needs, price, completion deadline, acceptance criteria, and other details;
- The platform temporarily freezes the payment made by the demander;
- The provider selects tasks they can undertake and supplies the computing resources required for task execution;
- The platform changes the NFT rental status of the computing resource to "leased";
- The provider executes the task, during which the platform monitors the usage of the computing resources;
- Upon task completion, the provider submits the results, and the demander performs acceptance checks;
- After acceptance, the platform unfreezes the payment, transfers funds to the provider, deducts a service fee, and changes the NFT rental status back to "available for lease";
- Both parties evaluate the transaction, and the platform collects the feedback.

5.4 PowerVerse Market Features

- Decentralization: PowerVerse Market removes traditional centralized intermediaries in computing resource trading, enabling direct interaction

between buyers and sellers. This lowers transaction costs while improving transparency and fairness. All transaction data and rules are stored on the blockchain and validated by network nodes, preventing single points of failure and data tampering, ensuring transaction security and reliability.

-
- Security: User identity, transaction data, and computing resource information are encrypted to protect privacy and security. Smart contracts undergo rigorous code audits and security testing before execution to prevent exploits. The blockchain's immutability guarantees deterministic and reliable contract execution, ensuring that once a transaction starts, it cannot be tampered with or interfered with.
-
- Scalability: The platform's architecture is designed with future growth and user expansion in mind, supporting easy scaling. It can accommodate increasing computing resource transactions through platform optimizations and smart contract upgrades. The market supports multiple types of computing resources and facilitates integration of new technologies and modules to adapt to evolving market needs and technological advancements.

六、 DeCloud — Web3.0 Decentralized Cloud Computing

Ecosystem

PowerVerse aims to build DeCloud, an open, efficient, secure, and highly scalable decentralized cloud computing platform. It integrates:PowerVerse Chain's Web3 capabilities,PowerVerse Infra's powerful virtualization,PowerVerse Market's marketplace for computing resources,to optimize resource allocation and meet diverse user computing needs — from large-scale enterprise tasks to innovative projects by individual developers. DeCloud offers unique value and potential, poised to reshape computing resource distribution and utilization, bringing new opportunities and innovative solutions across various fields.。

6.1 Smarter DePIN Infrastructure

- Decentralized Storage Based on IPFS:DeCloud uses IPFS technology for decentralized data storage, spreading AI training data and DApp data across multiple nodes. This greatly improves data security, reliability, and resistance to single points of failure and data leaks, while reducing costs and increasing storage efficiency.
- Geolocation-Aware Edge Computing:
- With IoT and mobile devices proliferation, DeCloud's PowerVerse Infra supports geolocation-aware edge computing, assigning tasks to edge nodes closer to data sources or users. This reduces latency, improves response speed, and suits real-time applications like smart traffic and industrial automation, also easing core network bandwidth.

- Multi-Graph Topology Routing for Task Management:
- DeCloud employs an advanced multi-graph topology routing network for task scheduling, dynamically selecting optimal paths and resource allocation based on task characteristics and resource availability. This ensures efficient execution, reliable coordination, and high stability for large-scale or distributed computing tasks.

6.2 Safer and More Efficient AI Support

- Privacy Computing via Homomorphic Encryption & Federated Learning:
- To protect data privacy in AI, DeCloud uses homomorphic encryption (enabling computation on encrypted data) and federated learning (collaborative model training without sharing raw data). This allows enterprises to train AI models securely, crucial for sensitive fields like healthcare and finance.
- GPU Parallel Training Support:
- DeCloud provides strong GPU parallel computing capabilities, optimizing scheduling and resource management to accelerate AI model training. This shortens training time and enhances model accuracy, supporting researchers and developers with a powerful AI development environment.

6.3 Expanded PowerVerse Market Elements

- AI Datasets and Model Marketplace:Users can buy, sell, or share AI datasets and pre-trained models, facilitating resource circulation and reuse. This lowers AI development costs and accelerates innovation for startups and enterprises alike.
- Agent and DApp Marketplace:Developers can publish and monetize intelligent Agents and DApps. Users can browse, purchase, and use diverse applications, enriching the ecosystem and expanding DeCloud' s use cases and market reach.

6.4 Comprehensive Ecosystem Development

- SDK Support:DeCloud offers rich SDKs for multiple programming languages and frameworks, making it easy for developers to integrate DeCloud computing resources into their apps. This reduces development difficulty, improves efficiency, and attracts more developers to the ecosystem.
- Decentralized CDN for DApps:DeCloud builds a decentralized Content Delivery Network (CDN) with globally distributed nodes to speed up content delivery, reduce latency, and enhance security and stability for DApps, supporting their growth and user adoption.
- Data Space:The platform provides secure, efficient data management and sharing solutions, catering to decentralized data assetization needs of individuals and enterprises.
- Metaverse Support:DeCloud' s computing power underpins metaverse applications, supporting virtual world rendering and real-time user

interaction, enabling immersive experiences and expanding the platform's business and application scope.

七、 PowerVerse DAO — Decentralized Autonomous

Organization

PowerVerse DAO is a decentralized autonomous organization built on PowerVerse Chain. It was born from a deep insight into the development of blockchain technology on PowerVerse Chain and a precise grasp of the vast potential of the decentralized ecosystems PowerVerse Market and DeCloud. Its goal is to create a fair, transparent, efficient, and vibrant ecosystem through the joint efforts and wisdom of community members, laying a solid foundation for the prosperity of PowerVerse and its related projects.

7.1 Typical Workflow of PowerVerse DAO

1) Project Proposal and Initiation

- Community members submit proposals: Any community member can propose projects related to PowerVerse DAO development, including but not limited to technical improvements, marketing activities, and new business partnerships. Proposals should detail the project background, goals, implementation plan, expected benefits, required resources, and budget.
- Proposal review and selection: A dedicated Proposal Review Committee, elected by community members, evaluates proposals based on feasibility, innovation, value contribution, and alignment with DAO's strategic goals. High-potential proposals move to the voting phase.

2) Community Voting and Decision Making

- Voting launch: Approved proposals enter a voting period during which token holders vote based on their judgment and interests. Detailed proposal information is available for community review.
- Vote tallying and execution: If a proposal achieves the required support threshold, it is approved and enters the implementation phase. A project execution team organizes resources to carry out the plan and regularly reports progress to the community.

3) Project Implementation and Supervision

- Formation of execution team: The execution team consists of volunteers or recruited professionals with relevant skills, responsible for task allocation, progress tracking, and quality control to ensure smooth project delivery.
- Supervision and evaluation: Community members monitor progress via on-chain transparency. A dedicated supervision group conducts regular audits, ensuring compliance with proposal requirements and addressing any issues or risks. Significant deviations may trigger recommendations, project suspension, or a re-vote.

- 4) Outcome Sharing and Feedback
 - Project evaluation and acceptance: Upon completion, the supervision group evaluates and publicly shares project outcomes, including economic benefits, technical innovations, and ecosystem contributions.
 - Experience summary and feedback: The execution team and community summarize lessons learned and provide feedback to improve future proposals, governance strategies, and DAO operations, continuously enhancing organizational efficiency and growth.

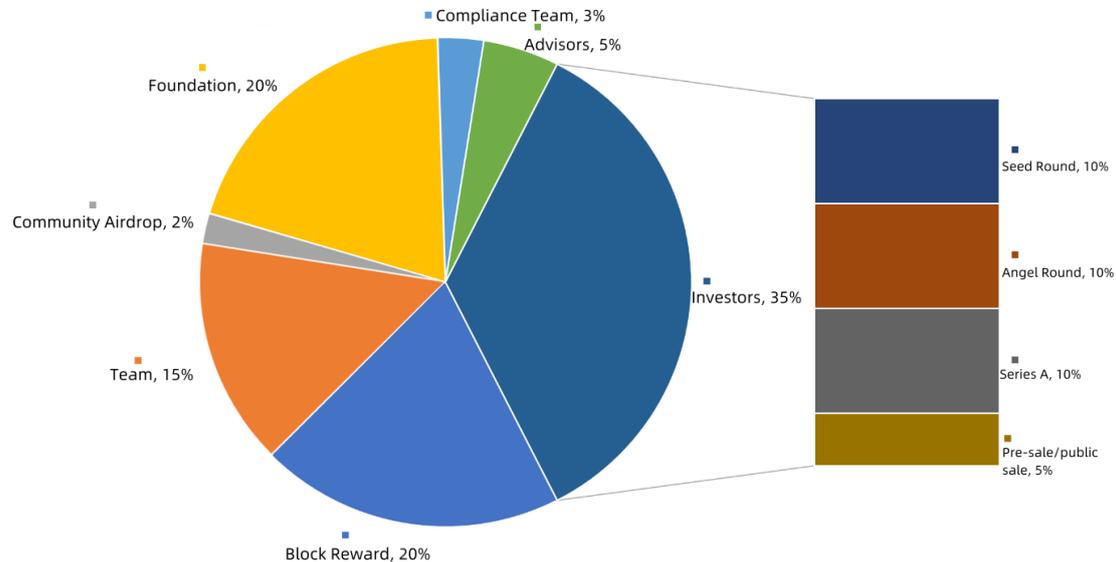
7.2 Characteristics of PowerVerse DAO

- 1) Decentralized Governance
 - Delegated decision-making: PowerVerse DAO abandons traditional centralized management by empowering community members through blockchain-based voting on major decisions like project direction, fund usage, and rule-making, ensuring fairness and democracy that reflect member interests.
 - Transparency and traceability: All decision-making processes and transactions are recorded on-chain, allowing members to audit operations, track fund flows, and monitor execution, thereby building trust and confidence.
- 2) Community-Driven Development
 - Broad community participation: PowerVerse DAO encourages active involvement across areas such as R&D, marketing, and operations. It offers rich incentives including token rewards, honors, and governance privileges to attract talent and resources, fostering a dynamic and creative ecosystem.
 - Diverse membership: Members hail from various backgrounds—blockchain experts, computing resource professionals, investors, marketers, legal advisors—bringing diverse perspectives and expertise to innovate and support comprehensive ecosystem growth.
- 3) Innovative Economic Model
 - Token-based economy: PowerVerse Coin acts as the core tool for governance and economic incentives. Token holders gain rewards through participation, aligning individual interests with organizational growth to create a positive feedback loop that boosts community engagement and sustainability.
 - Value capture and distribution: As the PowerVerse ecosystem expands, the token's value appreciates. A fair value capture mechanism distributes ecosystem-generated benefits to token holders, enabling them to share in the organization's growth and reinforcing the token's appeal and market recognition, providing a robust economic foundation.

八、Economic Model

8.1 PowerVerse Coin Distribution

The total supply of PowerVerse Coin is 1,400,000,000 tokens. The distribution model is as follows:



- Block Rewards - 20% (280,000,000 tokens). Mining will begin 30 days after listing on a centralized exchange (CEX). The block reward will halve every 5 years;
- Investors - 35% (490,000,000 tokens). Raised over four rounds:
 - Seed Round, Angel Round, and Series A Round: Each accounts for 10% (140,000,000 tokens). Unlocking begins 60 days after listing on a centralized exchange (CEX), with 10% released monthly over 10 months;
 - Presale/Public Sale Round: Accounts for 5% (70,000,000 tokens). 40% is unlocked immediately with no vesting. The remaining 60% will start unlocking on May 31, released at a rate of 10% per month over 6 months;
- Community Airdrop: Accounts for 2% (28,000,000 tokens). Community members can receive 500 HBC tokens by sending 2 USDT to a designated address and registering their information.
- Team: Accounts for 15% (210,000,000 tokens). 5% will be unlocked 60 days after listing on a centralized exchange (CEX). The remaining portion will be locked for 3 years and then released over 10 months.
- Compliance Advisors: Accounts for 3% (42,000,000 tokens). Their primary role is to assist the project in adapting to regulatory requirements across multiple countries. Tokens will be unlocked over 4 years, starting 30 days after listing on a CEX.
- Operations Advisors: Accounts for 5% (70,000,000 tokens). Responsible for supporting listings on major exchanges, ecosystem growth, education, and promotion. Tokens will be unlocked over 4 years, starting 30 days after listing on a CEX.

- Foundation: Accounts for 20% (280,000,000 tokens). Unlocking begins 60 days after the CEX listing and will be distributed over 4 years.

8.2 PowerVerse Market Monthly Dividends

At the end of each month, the Foundation will distribute dividends to users who have listed computing power resources on the PowerVerse Market. This dividend mechanism is based on principles of fairness, transparency, and sustainability, aiming to reasonably allocate returns according to each user's contribution to the platform. Dividends come from two sources:

- Block reward sharing: 3% of each block reward is allocated to the Foundation. The total allocated amount for the month is calculated and included in the monthly dividend pool.
- Donations: Contributions from other members or organizations.

The dividend distribution process consists of the following steps:

- Calculate the total dividend amount for the current round;
- Take a snapshot of all devices listed on PowerVerse Market;
- Calculate the total performance score of all active online devices under each user (see Section 5.2). If the user had any violations in the previous month, their score will be zero;
- Sum up the scores of all devices to get the total network performance score;
- Calculate each user's monthly dividend:

$$\text{User dividends} = \text{total} \times \frac{\text{user scores}}{\text{total platform scores}}$$

- Distribute the dividends.

We hope that this mechanism will enhance the platform's appeal to users by providing an additional source of income beyond device rental revenue, thereby increasing overall earnings. It is designed to improve user engagement and loyalty, encouraging users to focus more on maintaining and upgrading their devices to boost their performance scores and earn greater dividends. This creates a positive cycle that helps improve the overall quality and competitiveness of devices on the platform.

In addition, this mechanism increases the value of the platform by enhancing user activity. By distributing dividends, the platform attracts more users to actively participate in its operations, leading to a greater number of devices being listed and higher transaction frequency. This fosters a more vibrant ecosystem. Furthermore, it strengthens the platform's competitiveness by attracting higher-quality resources and user traffic, thereby consolidating and elevating its market position and brand influence. Lastly, it helps stabilize the user base, build long-term user relationships, and reduce churn—laying a solid foundation for the platform's sustainable development.

九、 PowerVerse Chain Roadmap

2025Q1:

- Implement basic computing resource sharing and trading functions
- Begin development of PowerVerse Chain and PowerVerse Infra

2025Q2:

- Complete development of PowerVerse Chain
- Complete development of computing resource trading in PowerVerse Market
- Begin validation of other components of PowerVerse Market

2025Q3:

- Design and develop PowerVerse DAO
- Complete development of PowerVerse Infra 1.0
- Begin development of other foundational support services

2025Q4:

- Complete overall development of foundational support services
- Begin development of DePIN PaaS
- Begin development of AI inference and training services

2026Q1:

- Complete development of DePIN PaaS
- Complete development of AI inference and training services
- Begin development of privacy computing services
- Begin development of various markets

2026Q2:

- Complete development of privacy computing services
- Complete development of various markets
- Select and design decentralized SaaS services

2026Q3:

- Complete development of privacy computing services
- Complete development of various markets
- Begin construction of the Web3.0 ecosystem
- Select and design decentralized SaaS services

2026Q4:

- Achieve initial construction of the Web3.0 ecosystem
- Launch over 10 exemplary decentralized SaaS services
-
- Select and define key industry integration scenarios
- Design and develop the metaverse ecosystem

十、 Team Introduction

01. Harvey

Harvey graduated from the University of Birmingham in the UK, specializing in blockchain and cryptocurrency applications and research. Since his student days, he has delved deeply into the foundational technologies and economic mechanisms of major public blockchains such as Bitcoin and Ethereum. He has also expanded his practical understanding of frontier areas such as DeFi, stablecoins, and NFTs.

Over the years, Harvey has actively participated in various blockchain summits and cryptocurrency conferences, often as a keynote speaker or panelist, providing forward-looking insights to both the blockchain community and professional investors.

On the technical front, Harvey is proficient in various mainstream smart contract platforms, consensus algorithms, and distributed network architectures. He has served as a technical consultant and project planner for several blockchain startups. He also has unique expertise in digital asset trading and risk management, with a talent for market analysis and crafting flexible, diversified investment strategies. In addition to closely following international regulatory trends, he actively contributes to community governance and has a deep understanding of blockchain compliance and industry self-regulation.

Today, Harvey is committed to integrating cryptocurrency with traditional industries. He promotes practical applications and innovation in fields such as fintech, supply chain management, and digital identity. Through training and public speaking, he also works to popularize blockchain knowledge among a wider audience. He firmly believes that cryptocurrency will lead the next wave of the digital economy and looks forward to collaborating with industry peers to build a more open, diverse, and sustainable future.

02. Solomon

Solomon graduated from the University of Manchester in the UK, with a strong foundation in blockchain technology and a global perspective. During his university years, he conducted in-depth research on distributed ledger technology, cryptographic algorithms, and smart contract principles, building a solid academic foundation.

After graduation, Solomon worked as a blockchain technology consultant for both startups and established enterprises, leading or participating in numerous blockchain implementation projects across fintech, supply chain, DeFi, and enterprise-level solutions.

With broad attention to the blockchain ecosystem, Solomon has been invited to speak at international blockchain summits, technical workshops, and industry forums. His insights and practical experience in cross-chain interoperability, NFTs, and Web3 applications have been widely recognized. He excels at aligning cutting-edge technology with real-world business needs, helping enterprises craft effective implementation strategies in areas such as business models, technology selection, and risk control.

In addition to promoting blockchain adoption across industries, Solomon remains highly attuned to emerging business models and regulatory developments. He is dedicated to accelerating the convergence of blockchain technology and the real economy. He believes blockchain is not just foundational tech but a transformative force that can reshape production relationships and value distribution. Through ongoing research and hands-on experience, Solomon aims to deliver professional, forward-thinking, and sustainable blockchain solutions to enterprises and institutions worldwide—unlocking new growth opportunities in the digital economy era.

03. Jane

Jane graduated from the University of Victoria in Canada and is an experienced expert in blockchain technology and cryptocurrency operations. She specializes in driving the growth and application of blockchain technologies—particularly in decentralized ecosystem development, crypto asset management, and platform scalability.

With a deep understanding of both technical and commercial dimensions of blockchain, Jane has played key roles in multiple high-impact projects. She has led initiatives in community growth, strategic partnerships, and ecosystem sustainability. Jane is skilled at translating complex technical concepts into practical business value, helping projects stand out in the competitive crypto market.

Core Strengths:

Ecosystem Development: Proven ability to establish sustainable development models for blockchain platforms, drive user growth, and strengthen network effects.

Market Strategy: Expert in crafting and executing innovative marketing strategies to secure broad market recognition.

Decentralized Community Management: Successfully scaled and managed decentralized communities, fostering active participation and governance.

Strategic Resource Integration: Built deep partnerships with global blockchain institutions, media outlets, and investors, accelerating project growth.

Jane is committed to exploring the vast potential of blockchain in global digital transformation and advocates for innovation driven by technology. She believes blockchain will profoundly reshape the digital economy and is determined to contribute her expertise to this mission.