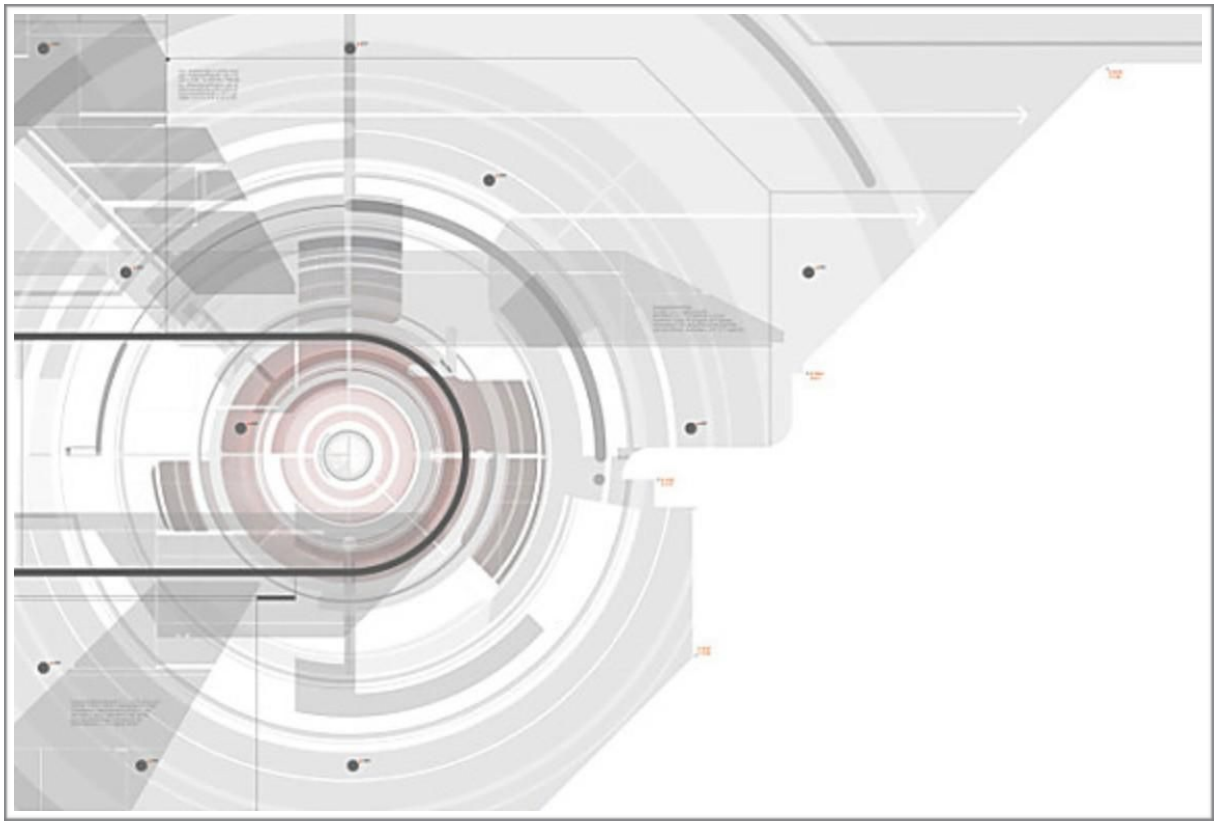
Decentralised Data Asset Management Architecture
DDAM Whitepaper



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1. Overview

We believe that the next key application of blockchain will be about “Data Sovereignty”. We define “Data Sovereignty” as the right of users to process their personal data assets.

In an environment where enterprises and users are paying more attention to data sovereignty issues, the Era of Big Data will enter the Era of Data Sovereignty. To collect data in the era of data sovereignty will be a key strategic issue that enterprises will face in the future. The decentralized data asset management architecture, also known as DDAM will be the foundation for large-scale commercial blockchain data applications.

Decentralised Data Asset Management Architecture, DDAM is a flexible, secure and stable decentralized data asset management architecture that helps all data producing managers to realize the value of their data. Data assets are data resources that can generate value for the data owner. However, not all data constitutes as data asset. Only scientific and effective data asset management can help data owners generate data assets.

In the age of data sovereignty, DDAM wants to help everyone create value for their own data. Human history proves that only businesses with solid profits can last the longest. For an underlying public chain architecture, being profit-driven will be the ultimate direction of the future. In the long-run, the business that will be truly recognised by the society will be determined by the value it creates.

1.1 Introduction

Blockchain has changed from a technology to a popular keyword. It seems that everyone can harvest wealth from the blockchain virtual currency to meet their ambitions. Behind the changes in the market value of virtual currency is the application of blockchain technology. The first application of blockchain technology was Bitcoin, and even Bitcoin appeared in 2009. As the underlying technical structure of the Bitcoin network, the technical concept of blockchain was proposed separately.

From a currency point of view, Bitcoin has not yet become the electronic currency defined by Satoshi Nakamoto, because it has not been used frequently for payment. However, Bitcoin has become the same asset as gold and is in fact a better asset than gold. As an asset, Bitcoin is not only more mobile, but also easier to carry and trade. The greatest significance is that for the first time in human history, Bitcoin uses technology to guarantee the inviolability of private assets.

Banks that store legal currency assets may be frozen, and the props and equipment may be worthless in an instant. These assets are not technically belong to user asset, but are numbers that can be arbitrarily changed on the central server. For Bitcoin, only the private key that the user has mastered can trigger a change in the account balance. Therefore, the first application of the blockchain created digital assets, such as Bitcoin, Litecoin, Ripple, and Stellar. The second large-scale application of the blockchain is based on the issuance of Ethereum. Vitalik created Ethereum and added Turing-Complete scripting to the Blockchain. Based on the blockchain ERC20 protocol, users can use tokens to record information on the financing situation of a company or organization. The ERC20 agreement makes it easier for entrepreneurs to get support and

for the public to participate in financial activities. Thus, the second application of the blockchain is large-scale certificate issuance, giving ordinary people the right to participate in financial activities. The application of blockchain technology allowed the market value of virtual currency to rise from 10 billion dollars to a peak of 800 billion dollars.

The market is expecting the next large-scale application of blockchain technology. The first application of the blockchain gave the public the right to dispose of its own assets, and the second application of the blockchain gave the public the right to participate in a wider range of financial activities. We believe that the third application of the blockchain will be around Data Sovereignty. We define data sovereignty as the right of users to process their own data assets.

1.2 What Are Data Assets?

Data assets (Data Asset) and Digital assets (Digital Asset). Digital assets are what we are familiar with, such as bitcoin, EOS or Ethereum. Balances in a bank account are also digital asset. Different to digital assets, data assets have the following characteristics:

- It is more difficult to transfer data assets than digital assets.
  Digital assets can be transferred. For example, if A transfers B bitcoin, A loses control over this bitcoin. However with data assets, both parties can make a copy of the data. Both parties will now have ownership rights over it.

- Data assets continue to generate data assets
  As long as we use Internet services, the more data we collect, the greater the value of the data. As long as an IoT device is working, the data assets of this device constantly generates.

- The value of data assets is reflected in the use of digital assets, therefore bitcoin itself has value. The value of the data needs to be reflected in the use, such as an advertising targeting activity, a loan credit inquiry, and training an AI model .

From a technology point of view, the success of the internet as a technology platform is powered by the value of data contributed from each individual. In everyday life, data is everywhere, but not all data can be assets. Only data that is controllable, measurable, and monetizable can become an asset. Therefore, data assets generally have the following characteristics: virtuality, shareability, timeliness, security, exchangeability, and scalability.

From the perspective of a business or organization, a data asset is a data resource owned or controlled by a business or organization that can bring future economic benefits. With the advent of the data age, emphasis on data has reached unprecedented heights. “Data is an asset” has been widely recognized. Data is like the foundation of an enterprise. It is wealth that companies have yet to discover, and would be widely used by enterprises in the future. Big companies own the data their users generate - their Internet searches, purchase behaviors on e-commerce platforms, our gender and age data. These are used by Internet companies to advertise. These data have attributes that generate value, and thus are supposed to belong to the user.

A case study will be Google, where digital advertising revenue consists of 91% of all revenue streams. This ratio of digital advertising revenue is even higher for Facebook. The power of digital advertising is also seen in WeChat. WeChat can tailor relevant advertisements to various groups of users. Without this audience segmentation, half of the advertising exposure is put to waste. The ability to segment audience is achieved through data that these companies have. They range from basic meta tag data for gender, age, education, purchase history and behavior to even real-time geographic location data. These data form important data assets for Internet companies. These sets of information should belong to the users to generate more valuable assets under their name. However, most users do not perceive the value of their own data. Therefore ,we believe that the third large-scale commercial application of the blockchain in the next few years will focus on Data Sovereignty.

Decentralised data asset management will be a key step in human history to begin the era of user data assets ownership.

2. Project Overview

2.1 Overview of DDAM (Decentralized Data Assets Management)

DDAM focuses on the field of data asset management, using SPoC (Staking Proof Of Capacity) to achieve lower energy consumption, lower threshold, and greater decentralization. The mission is to become a stable and scalable infrastructure for data asset management.

2.2 Why Decentralized Data Asset Management Is Needed?

With the development of the Internet, data has become an important "strategic resource". A new type of economy has emerged, known as “Data Economy” whereby large numbers of companies rely on data for advertising, analytics and other purposes. Collecting and analyzing user data, analyzing data images and precise ad targeting to earn advertising revenue is a known profitable business model for technology and media companies. Among them, the most typical ones are internet giants such as Google or Facebook. In recent years, Google’s advertising revenue accounts for more than 90% of their total revenue. Advertising revenue accounts for 98% of total revenue at Facebook. According to eMarketer estimation report, digital advertising spending will rise 17.1% to $327.28 billion in 2019, with Alibaba, Facebook and Google as the leading digital advertising sellers. These three companies will account for 61.2% of the total global digital advertising market. In 2019, Google will become the first digital advertising seller to cross the $100 billion mark in net digital advertising revenues.

Science and technology have promoted the progress of human civilization. Hence, we should fully make use of the value of data to make production and life more convenient. However, at the same time, we have also observed new problems that are constantly emerging in the process of data management, such as :

- Data management Irregularity and Chaos
  An example of shared bicycles ecosystem. In the past two years, there have been dozens of shared bicycle companies, each collecting a large amount of user data, including mobile phone numbers, locations, riding routes,.... Among the shared bicycle companies that have already stopped their operations, where is the huge amount of data they have collected? This data management is likely to cause

problems with the privacy leaks that will be discussed next.

- Privacy of data leakage
  In addition to the infamous Cambridge Analytica scandal, hackers have managed to gain access to nearly 50 million Facebook user accounts. Even Zuckerberg's account was not spared.

- Data flow between organisations is difficult
  It is increasingly difficult for enterprises and organizations to regard data as their core assets, with prevalent concerns about data privacy leaks, and the unwillingness to share and exchange data to form a "data island". However the full potential of data is not realised as data flow is limited to its central server. The convenience brought about by the use of data should not be a sacrifice for data privacy. In particular, in recent years, various data privacy leaks have occurred frequently, leading to people paying more attention to data privacy protection. Solving the problem of data sovereignty has become a challenge that enterprises and the society as a whole must face. From a business perspective, whether it is to respect users, to comply with the law, or to protect their reputation and interests, there is an urgent need to find a solution to the increasingly necessary balance between data utilization and data privacy protection. Under the environment that blockchain technology is becoming more mature, enterprises and users are paying more attention to data sovereignty issues, we believe that a decentralized data asset management architecture is the third blockchain large-scale commercial applications.

2.3 Why Do We Need “PoC” Consensus Mechanism?

There are currently three main consensus mechanisms; namely Proof of Stake (PoS), Proof of Work (PoW) and Proof of Capacity (PoC).

Proof of Stake (PoS)

The selling point of the PoS consensus mechanism is that it creates value for all participants. However, there is an inevitable contradiction here. The formation of early, exclusive groups can easily lead to unfairness for latecomers.

Proof of Work (PoW)

Pow is relatively fair to the latecomers, but also faces the following problems:

- Problems of centralised power and monopoly by early miners.
  10 years of development in the Bitcoin mining ecosystem, alongside the participation of large institutional capital, has seen the network become harder for new miners to participate in. The Bitcoin network is currently operated by influential mining farms with more than 51% hash power of the network. If the six largest miners coordinate to launch a 51% attack on the Bitcoin network, will it still be secure?

- Inefficient usage of energy.
  Large amount of electrical energy is used to power the Bitcoin network. Currently, bitcoin total hash rate has reached 43.42 EH/S. Based on the popular mining model, S9 AntMiner, the hash power per machine can reach up to 13TH/S. This implies that the whole network hash power is equivalent to being operated by 3.34 millions of S9 ant miners. The power consumption of S9 is able to handle up to 1500 watt, with a daily power consumption of 36 watt. Every month, the monthly power consumption per machine is estimated to be 1080 watt. This implies that the Bitcoin network is empowered by 3.34 Million of S9 Miner machines. The power consumption will reach as high as 43.2 Billion kWh! It is estimated that bitcoin network accounts for global electricity consumption of 0.2%.

Proof of Capacity (PoC).

In lieu of existing problems by PoW model, the “Burst” team proposed a new mechanism called the PoC capacity certification mechanism to replace workload heavy proofs work with space capacity proof in 2014. This is better than the traditional PoW system as it is a more forward-looking consensus mechanism. The main feature of this consensus is utilising hard drive storage space as a means of consensus. To reduce the energy consumption of memory hard function (MHF). At the same time, it adopts the hard disk mining mode, is anti-ASIC, can mine without special equipment, reduce the miners' participation threshold, make its production mode more decentralized, and is more secure and credible.

- Low power consumption
  Compared with an ASIC machine for PoW miners, PoC has higher power efficiency. According to test, PoC consensus hash power consumes an average of 1/500 of Bitcoin hash power usage.

- Low requirement of entry
  PoW mining requires expensive dedicated ASIC miners or GPU. PoC only requires a computer or even laptop with suitable HDD space to participate in mining process.

- True decentralization
  Availability of extra storage space is more common and is cheaper than dedicated mining machines. Thus, the competition cost is lower. This will allow more people to participate in SPoC mining process, resulting in a more decentralised and flexible network. However due to problems in the “Burst Team” economic model strategy, the potential of this innovative consensus model, PoC, has not been widely recognised and accepted by the public. In 2018, a “BHD” team managed to design PoC consensus mechanism with an economic model of mortgage mining. This allows the POC consensus to be recognized and accepted by the public. The PoC consensus mechanism, with lower participation requirements and higher decentralisation, will provide huge potential for the development of smart contracts.

3. Project Architecture

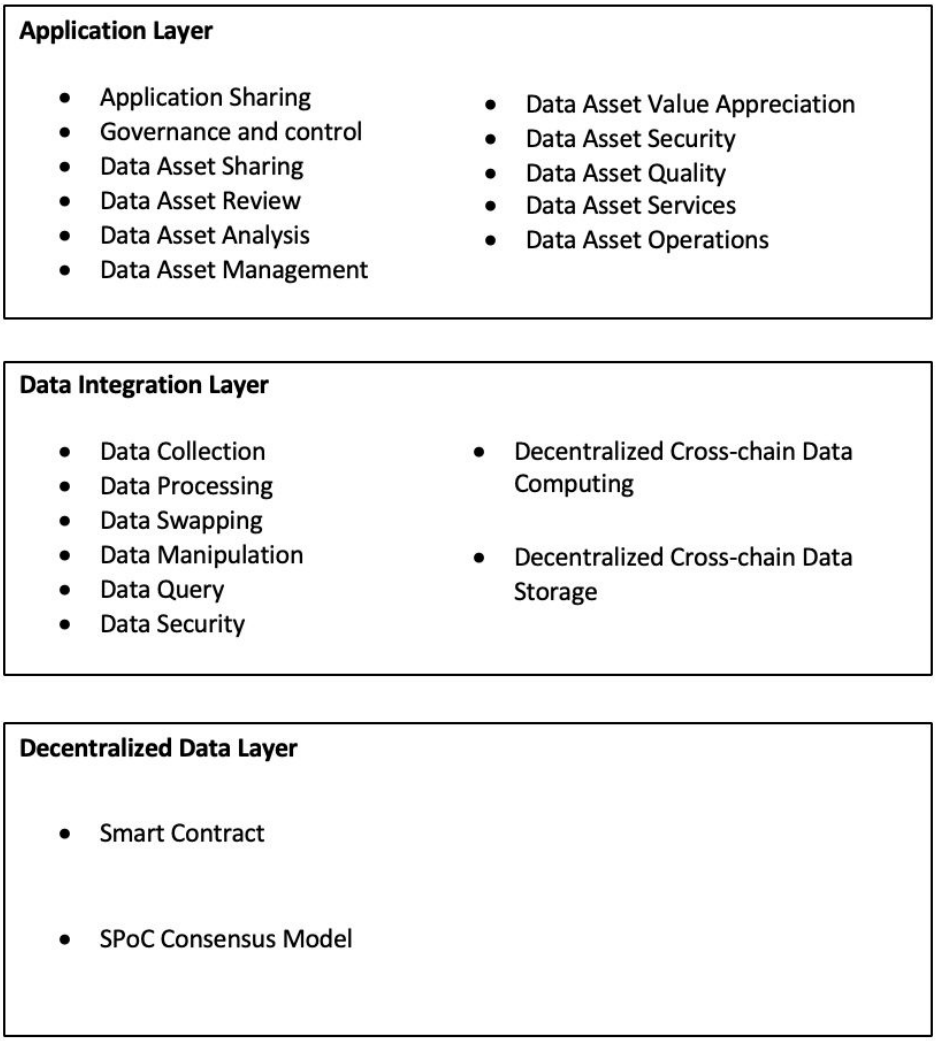
Development of data assets management infrastructure consists of three levels. From the bottom to the top level, they are data processing capability, data asset management and business value realisation.

With the rapid development of data technology services, data processing capability is not only about data collection, storage, distributed computing and debugging to emergency response. It has also been extended to greater technical format in the ability to process, identify, analyze and alter various types of data.

The role of decentralized data asset management is to effectively manage the data assets on various decentralized data storage platforms in the future, and to support the creation of business value objectives. This would allow better operations flow across processing, analysis, application and even data opening, connection, integration and customizing new series of processes, which establishes a credible management mechanism around the data asset itself. Through the data asset management tool, relationship between various data points and indicators such as validity and rationality of the data can be clearly known.

3.1 Decentralised Data Layer to support decentralised computing and output data

The vast majority of computing power in the world is located at supercomputer centers or data laboratories, but rather lies distributed in people's homes around the world across millions of personal computers. The same applies for data storage. DDAM focuses on building a decentralised data asset management architecture. Through cross-chain technology solutions, DDAM can support decentralised storage platform as the data layer. Computing is to be conducted via the decentralised computing platform. Through smart contracts, the data asset management architecture can



provide standard data access such as data collection, processing, exchange, file operations, data query and data security.

3.2 Application layer of data asset management

Traditional data asset management includes three core layers: Data Asset Management and Governance Control, Data Asset Applications and Data Asset Sharing, Data Asset Circulation and Asset Appreciation. All these will form the key application layer of the decentralised data asset management architecture. This will also become the most intuitive part of the entire decentralised architecture and is a key pillar of DDAM ecosystem for the users.

Governance control layer of data asset

Data asset governance control is different from data management. Data management refers to the planning, control, and provision of data and information assets that leverage the value of data and information assets, emphasized within or across the enterprise. Data governance control is defined as a set of activities (planning, monitoring, and execution that exercises power and control over data asset management activities). Data governance establishes the right principles, policies, processes, and procedures to ensure that data and information are managed in the

right way. Data asset governance and control methods are mainly oriented with the data life cycle, using the perspective of time and space to achieve governance and control. From a spatial perspective, data flows across different services and systems. Data governance must achieve cross-system, cross-business, and end-to-end governance, which requires overall planning and decision making, coordination, and promotion. From a time perspective, enterprise management data assets form the life cycle of managing data. Data is first created or acquired, then stored, maintained, and used, and finally destroyed. Therefore, effective data management begins before data collection. In future, during the era of data sovereignty, companies will first develop data plans and define data specifications to obtain the technical requirements for data collection, transmission, storage, and control capabilities. The main functions of data asset governance and control under the data sovereignty era would thus include data governance policy formulation, data standard management, data structure management, data flow management, database management, data utilization management, and data governance quality improvement.

Data asset application and data asset sharing

Data asset application and data asset sharing do not focus too much on data itself, but on the analysis process. Data asset application refers to the processing and analyzing of data assets, to provide a reasonable basis for enterprises and users to provide data management control and scientific decision-making. This supports the development of business activities and brings economic benefits. In the era of data sovereignty, the analysis of data pairs will face new challenges. Ownership is replaced by the rights to use, and exchange value is replaced by shared value. Data sharing enables fast data modeling, analysis and application. The data sharing layer realizes visual metadata management, establishes an enterprise data center, and strengthens data asset management. Data asset application innovation under data sovereignty needs to focus on reducing data usage difficulty, expanding data coverage, and improving data supply capabilities. The era of data sovereignty is different from the era of big data. It is necessary to transform roles from data consumers to data producers, so as to form new data pools and shared models in the respective sovereign data of enterprises and users.

Data Asset Circulation and Value Appreciation

Data Asset Circulation and Value Appreciation are the key objectives of data asset management. Transactions in data assets are the driving force to realise the value of data. In the era of data sovereignty, data asset transactions will rely more on the right to use the data than just data ownership. The premise of data asset circulation and value appreciation requires audited data for data authenticity, data security, data investigation and risk assessment, to protect the rights of data asset owners. Around the circulation activities such as data cooperation or transactions, it is necessary to establish a corresponding data asset circulation platform mechanism at the technical level. The data asset circulation platform needs a sound guarantee mechanism, such as quality assurance, management guarantee, and technical support. It is necessary to accurately evaluate data assets from the asset value level. Although there is no mature data evaluation models at present, with the expansion of data asset circulation, the evaluation of data value will become increasingly reliable. Data asset appreciation and implementation methods will strengthen the ability of sovereign data analysis. They also apply the analysis results to improve the value of data assets, the right to use data, and the value of data assets.

4. DDAM's Consensus Algorithm

In 2014, Proof of Capacity (PoC) was first introduced in Proof of Space (PoS) white paper. PoC is not that different from the PoW consensus algorithm. In fact, PoC can be regarded as having integrated the aspect of Memory Hard Function (MHF) of PoW. MHF is a hashing algorithm based on memory space. Unlike PoW, where miners find nonces to solve ever-changing block headers, the PoC MHF process is completed by generating random solutions also known as "plot documents", using the "Shabal" cryptographic algorithm, in advance and stores it on the hard drives. In this instance, the heavy computation work is known as "Plotting". Thereafter, miners will match their solutions to the most recent puzzle and the node with the fastest solution gets to mine the next block. Thus, the computation work done by miners are determined by the storage space of their hard drives.

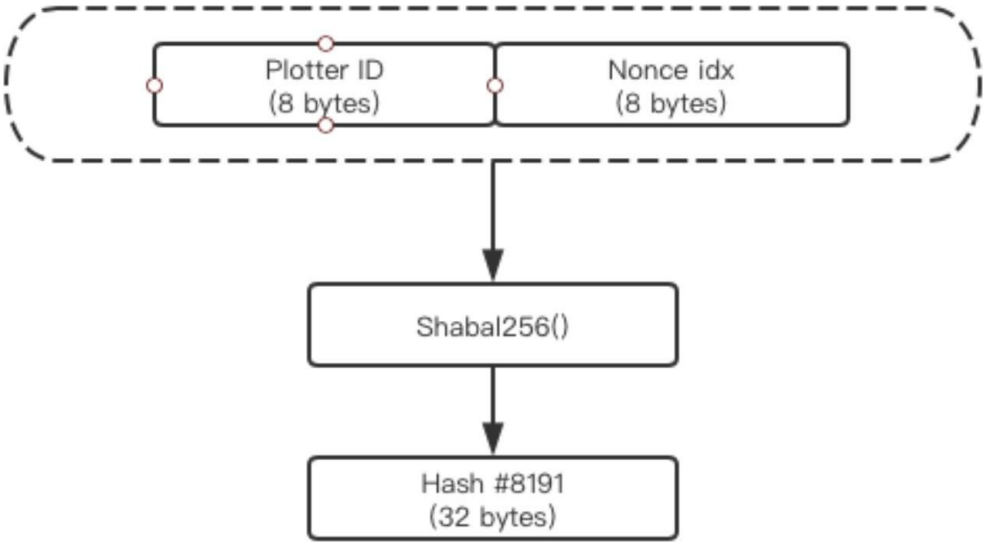
4.1 To Generate Plots

To generate plots, the process is completed through Plotting. Plotting utilises a slow hash function known as the Shabal cryptographic algorithm. Unlike SHA-256 (Bitcoin's cryptographic algorithm), the Shabal Cryptographic algorithm is harder to compute. Prior to computation, miners needs to enter a stage of "Precomputation". Therefore it is harder to utilise an ASIC for mining. In DDAM, we will use Shabal256.

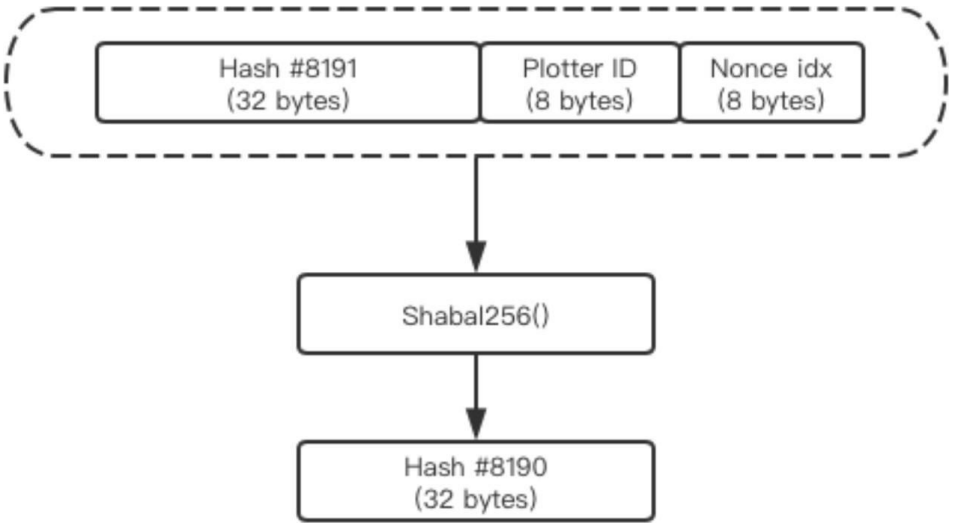
DDAM public chain utilises sPoC (Staking Proof of Capacity) as its consensus Upon reaching 100% of staking requirements, all corresponding block reward will be distributed.

Within these plot documents contains a pre-calculated hash. Each plot document will contain multiple 8192 hash groups, also known as random numbers (Nonce). Each nonce is exactly 256 KB (Hash is 32 bytes and 8192 hash group size will be 256 kb). Additionally, each nonce is divided into 4096 pairs of hashes. Every following hash is grouped together, known as scoop. See the following image for reference.

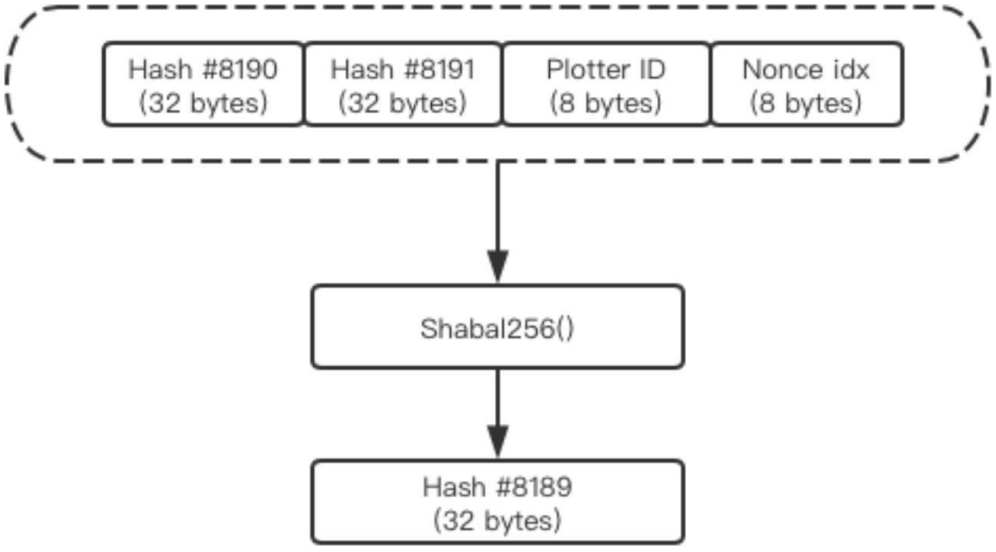
Nonces can be identified by its index number (idx). We will use 64 bit integers (8 bytes) to identify individual nonces. Nonce idx can range from 0 to 2^65. The "plotting" process requires the user input of a "Plotter ID", which is their plotting identification number. This is to ensure that plot documents can only be used by the document's owner.



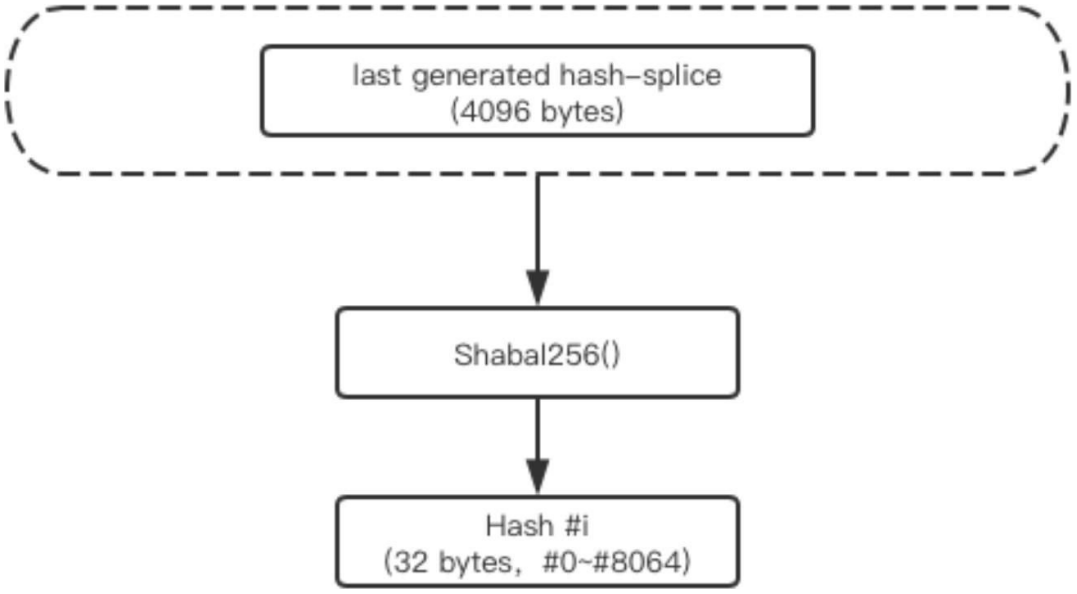
Based on computing the Plotter ID and Nonce idx through Shabal256(), hash #8191 will be generated. Hash #8191, Plotter ID and Nonce idx will then be used in the next round of Shabal256() encryption to become a new hash, Hash #8190 (as shown below).



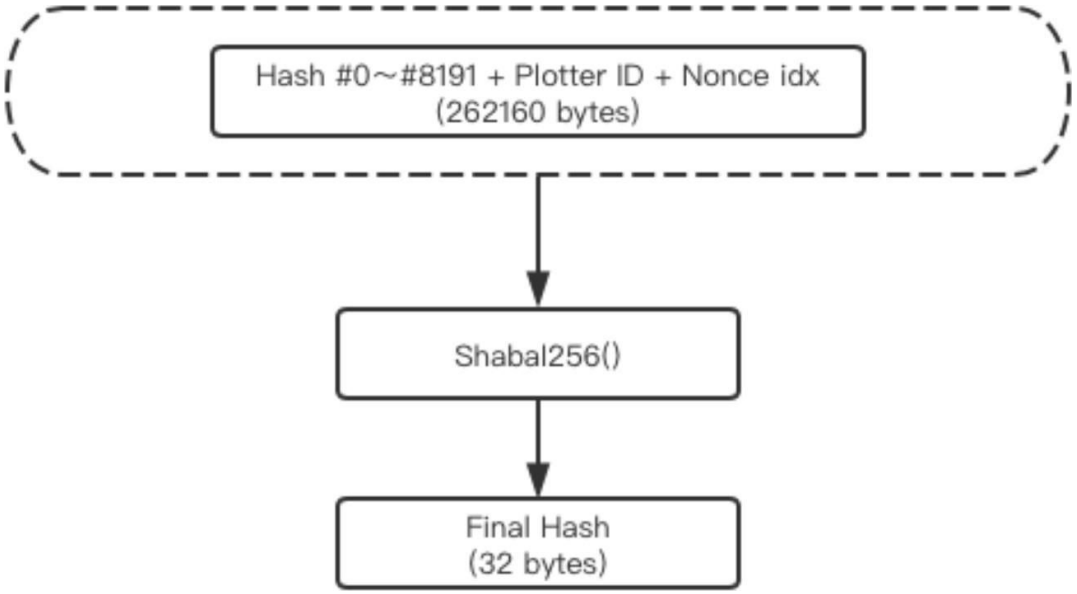
By hashing hash #8190 and the previous shabal256() entries, a new Shabal 256() entry will be generated in the form of Hash #8189 (when the input string is contained within 4096 bytes). You can calculate hashes #8189~#8065 in this manner.



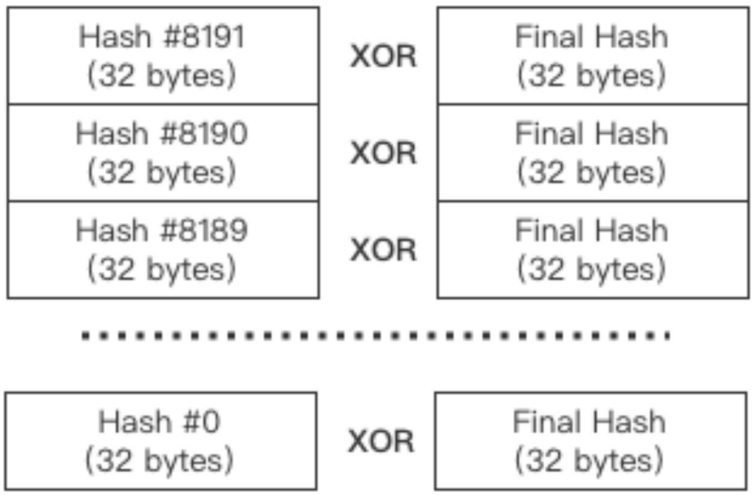
From the calculation of hash #8064, the length of input strings being added will exceed 4096 bytes. New input strings will thus be added in the form of Shabal256() hashed entries. This process will be performed until hash #0 is calculated (as shown below).



When the nonce has all #8192 hashes, the following computation of the final hash will be done as



The final hash saved will represent the value of Hash #0 to #8191.



In this way, all the Nonce data will be obtained.

Mining Process

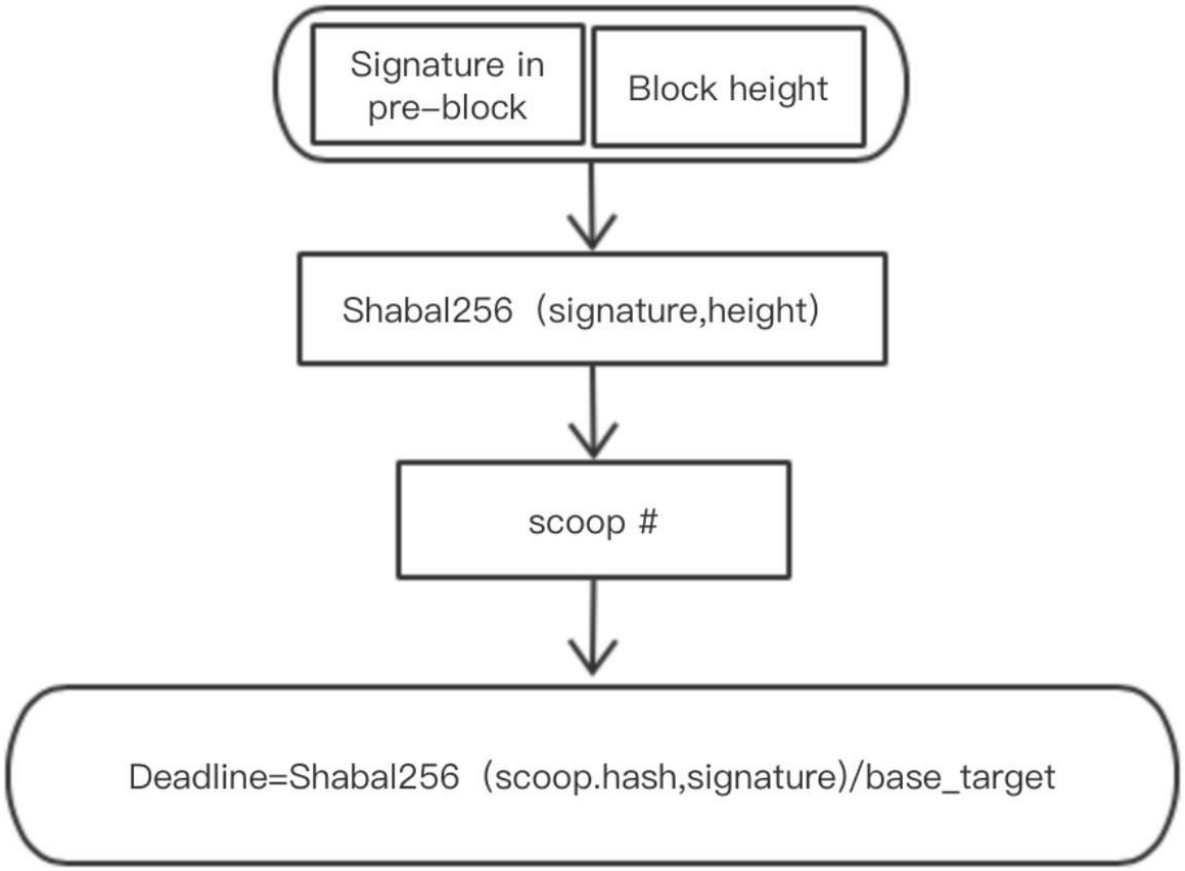
The mining process will start once the plot documents have been generated. Miner first obtains the latest information of block height, including the generated signature (32 bytes)
and calculated base_target based on 288 blocks, also known as the "block difficulty level".

Base Target

Base Target is the difficulty based on the last 24 hours generated blocks (288 blocks). This
block difficulty will be adjusted in such a way that the average interval between blocks in DDAM is 5 minutes.

Deadline

As miners are processing the plot documents, they will produce a deadline value. These values represent the number of seconds that are required before the next block is cast. If no other miner casts a block during this time, the miner can cast a block and receive a block reward.



The mining process is as shown in the figure above:

1. Obtaining the generated signature of the current highest block and the height of the block cast.

2. Generating the signature and the block height as shabal256 input, and the calculated hash is used as the random number seed, resulting in [0,4095]. The random number determines the scoop index number.

3. Traversing the scoop index number of all hashes, calculating the Deadline=Shabal256 (scoop.hash, signature)/base_target in turn, then selecting the smallest Deadline as a result of this round.

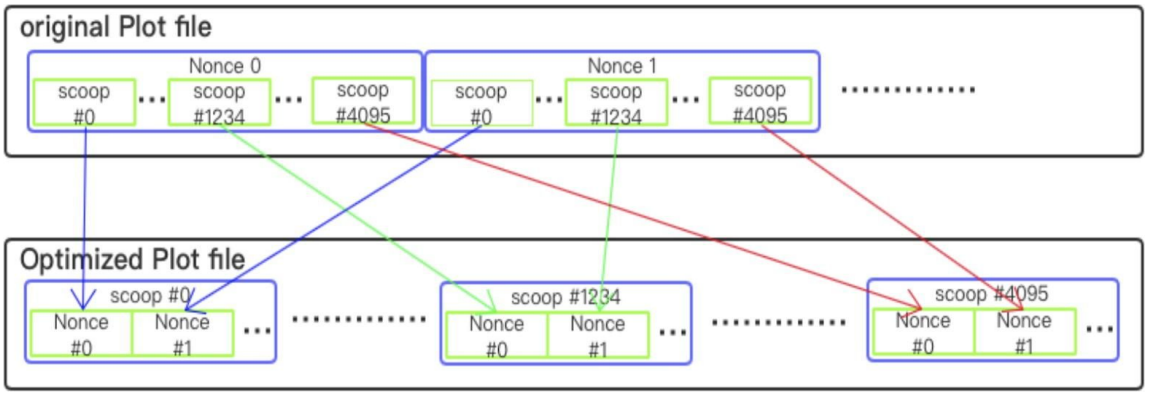
4. If this round of deadline becomes the smallest value of the network, it will be responsible for packaging the transaction signature, generating candidate blocks, broadcasting to the whole network and obtaining the block reward.

Otherwise, waiting for someone else's new block, verifying it, and making sure to accept the smallest deadline as a new block.

4.2 Optimizing the Plot document structure

Optimizing the Plot document structure is easy to know from the mining process: after determining the scoop index number used in this round, we traverse all index number scoops.

With reference to the diagram below: the original plot document is not optimised. In order to process the same scoop index number across various nonces, the operation requires access to difference nonces containing the same scoop. This process can be both time consuming and inefficient. In the optimized file, all the nonces will be stored as scoop index number. When determined that the current block group utilises a particular scoop index number, computation will simply be conducted within the scoop to read all the data. The computation will be ordered to achieve a sequential computation of nonce. This is more efficient and is better suited to the slower computation characteristics of mechanical hard disks.



5. Economic model

5.1 Coin Information about DDAM

A total of 8 billion coins. The underlying PoC consensus mechanism will release one block at an interval of 5~6 minutes. For every 800,000 blocks, the block reward will be halved. The initial block reward is awarded as 4,400 DDAM per block.

Total amount of coins	8billion DDAM
Time for every block	5 to 6 Minutes
Block rewards	4,400 DDAM per block
Halving Period	For every 800,000 blocks, and the block reward is halved.

5.2 Distribution Allocation of DDAM

12% for pre-mine, 10% for early community, 2% for foundation with the remaining 88% to be used for mining. Mining will start by staking. Each hard disk capacity need to stake 1000 DDAM to get block reward. For hard disk that did not fulfill the stake requirements, will get 25% of block reward, the remaining 75% will be allocated to founding block.

Total amount of coins	8billion DDAM	
Early Supporter Community	10%	Allocated to Genesis Block
Foundation	2%	
Miners	88%	Release through block reward

5.3 Distribution Schedule of DDAM

Distribution schedule for DDAM will follow the following table for the next 50 years.

Time Stamp	Block Height	Block Reward	DDAM Released each year	Cumulative release	Distribution Percentage
2019.10	Genesis Block		960,000,000	960,000,000	12%
2020.10	100,000	4400	440,000,000	1,400,000,000	17.5%
2021.10	100,000	4400	440,000,000	1,840,000,000	23%
2022.10	100,000	4400	440,000,000	2,280,000,000	28.5%
2023.10	100,000	4400	440,000,000	2,720,000,000	34%
2024.10	100,000	4400	440,000,000	3,160,000,000	39.5%
2025.10	100,000	4400	440,000,000	3,600,000,000	45%
2026.10	100,000	4400	440,000,000	4,040,000,000	50.5%
2027.10	100,000	4400	440,000,000	4,480,000,000	56%

2028.10	100,000	2200	220,000,000	4,700,000,000	58.75%
2029.10	100,000	2200	220,000,000	4,920,000,000	61.5%
2030.10	100,000	2200	220,000,000	5,140,000,000	64.25%
2031.10	100,000	2200	220,000,000	5,360,000,000	67%
2032.10	100,000	2200	220,000,000	5,580,000,000	69. 75%
2033.10	100,000	2200	220,000,000	5,800,000,000	72.5%
2034.10	100,000	2200	220,000,000	6,020,000,000	75.25%
2035.10	100,000	2200	220,000,000	6,240,000,000	78%
2036.10	100,000	1100	110,000,000	6,350,000,000	79.375%
2037.10	100,000	1100	110,000,000	6,460,000,000	80.75%
2038.10	100,000	1100	110,000,000	6,570,000,000	82.125%
2039.10	100,000	1100	110,000,000	6,680,000,000	83.5 %
2040.10	100,000	1100	110,000,000	6,790,000,000	84.875%
2041.10	100,000	1100	110,000,000	6,900,000,000	86.25%
2042.10	100,000	1100	110,000,000	7,010,000,000	87.625%
2043.10	100,000	1100	110,000,000	7,120,000,000	89%
2044.10	100,000	550	55,000,000	7,175,000,000	89.6875%
2045.10	100,000	550	55,000,000	7,230,000,000	90.375%
2046.10	100,000	550	55,000,000	7,285,000,000	91.0625%
2047.10	100,000	550	55,000,000	7,340,000,000	91.75%
2048.10	100,000	550	55,000,000	7,395,000,000	92.4375%
2049.10	100,000	550	55,000,000	7,450,000,000	93.125%
2050.10	100,000	550	55,000,000	7,505,000,000	93.8125%
2051.10	100,000	550	55,000,000	7,560,000,000	94.5%
2052.10	100,000	275	27,500,000	7,587,500,000	94.84375%
2053.10	100,000	275	27,500,000	7,615,000,000	95.1875%
2054.10	100,000	275	27,500,000	7,642,500,000	95.53125%
2055.10	100,000	275	27,500,000	7,670,000,000	95.875%
2056.10	100,000	275	27,500,000	7,697,500,000	96.21875%
2057.10	100,000	275	27,500,000	7,725,000,000	96.5625%
2058.10	100,000	275	27,500,000	7,752,500,000	96.90625%
2059.10	100,000	275	27,500,000	7,780,000,000	97.25%
2060.10	100,000	137.5	13,750,000	7,793,750,000	97.421875%
2061.10	100,000	137.5	13,750,000	7,807,500,000	97.59375%
2062.10	100,000	137.5	13,750,000	7,821,250,000	97.765625%
2063.10	100,000	137.5	13,750,000	7,835,000,000	97.9375%
2064.10	100,000	137.5	13,750,000	7,848,750,000	98.109375%
2065.10	100,000	137.5	13,750,000	7,862,500,000	98.28125%
2066.10	100,000	137.5	13,750,000	7,876,250,000	98.453125%
2067.10	100,000	137.5	13,750,000	7,890,000,000	98.625%

2068.10	100,000	68.75	6,875,000	7,896,875,000	98.7109375%
2069.10	100,000	68.75	6,875,000	7,903,750,000	98.796875%

6. Technical route

First Phase [Consensus Genesis] --- October 2019

Milestone : Mainnet will be launched, SPoC consensus mechanism will be stable.

Second Phase [Digital Asset Management Architecture] --- October 2010

Milestone : Integrating smart contract module for vertical field of data management. To establish cross-chain contracts to create a decentralised data storage platform and parallel computation platform. To build a decentralized data asset management architecture.

Third Phase [Rich decentralised digital asset management ecosystem] --- October 2011

Milestone : Rich ecosystem for decentralised digital asset management to unleash the application and potential of data.

7. Summary

In future, data will become the most important production material. Anticipating future issues of data sovereignty, more data will be stored in a decentralized data storage platforms, which can ensure data privacy. Existing data also creates a silo situation among enterprises, where information remains in private. This will be broken, and blockchain technology will reconstruct the credit society.

The decentralized data asset management, which maintains data sovereignty, will become the strategic consensus of the world's leading enterprises. The popularization of artificial intelligence and machine learning will further amplify enterprises' hunger for data asset management.

It can be said that in the era of data sovereignty, whoever manages decentralized data assets best will have the key to understanding and manage data in the future. Only through technology management and usage of our own data can we fully protect the privacy of the times, and facilitate collaboration with others in the future effectively.

DDAM aims to become the underlying infrastructure for decentralized data asset management in the future, helping all data producing managers to realize the value of data assets and creating a real social value with blockchain technology.