

This is the worst age

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# contents

I. Introduction	3
This is the best era and the worst	3
This is the age of faith and the age of doubt	7
Everything is in front of people, and there is	nothing in
front of people	10
II.The project introduction	14
1. About MagicData Chain	14
2. PoSA - MDC mining consensus algorithm	16
3. MDC application model	18
4. MDFS: Magic Data-Distributed-File-System	20
Ш. Magic Data Coin ( MDC ) introduction	31
1. About MDC	31
2. MDC distribution	31
3. MDC mining mode design	34
IV. Magic Data Chain technology introduction	36
1. Public chain architecture	36
2. The characteristics of the chain	37
3. Core technology	40
4. Fragmentation technology	44
5. Side chain technology	45



6. Application scenarios	46
V. Mission and mission of MDC	47
1. The MDC came into being	47
2. Historical mission of Magic Data MDC	60
VI. MDC ecology	64
1. Ecological planning	64
2. Ecological application	66
3. 6 mechanism support of MDC ecology	74
VII. MDC team and background introduction	78
1. Core members of the team	78
2. Investment institutions	80
VIII. MDC ROAD Map	84



## I. Introduction

Chinese Communist Party's nineteen major report pointed out that Chinese society has been transformed into the main contradiction between insufficient development of the people's growing need for a better life and unbalanced.

The answer is very clear as to why the development of inadequate imbalances cannot satisfy the people's growing needs for a better life. Because there are many imbalances are not fully developed, the people for fairness, justice, security, privacy, legal and other broader areas, more demanding a better life arising needs, cannot get a greater degree of satisfaction. Therefore, there is a contradiction between the two.

Contradictions are silent and exist in all aspects of our lives. This white paper begins with the contradictions in the data field.

## This is the best era and the worst.

Modern society highly develops technology, information very fast flow, just a cell phone, you can access Town and Miles; opening the video APP, you can experience the world, network of marine data, exchanges. Data is undoubtedly the cornerstone of our modern social life structure.



"2018 Chinese Big Data Development Survey Report" pointed out that in 2017 China big data overall size of the industry was nearly one thousand billion yuan, big data core industry regulation mode over 500,000 million yuan, a large data core industries growth rate reached 40.5 %, is expected to 2018-2020 growth rate will remain at 35 % or more.

65.2% of the companies surveyed have established data analysis departments; the proportion of companies planning to establish relevant data departments is 24.4%.

After entering 2019, the data industry bid farewell to the bubble, enter a more pragmatic development stage, and enter the growth period from the burgeoning stage of the industry.

Today, when big data technology becomes a trend and becomes a national strategy, how to maximize the value of this data gold mine and stimulate more social vitality has become a question for people to think about.

Whether it is for Internet companies, telecom operators or a large number of start-ups, the realization of big data is particularly important. Whoever finds the password first, whoever can seize the market and win development. While exploring the business model of big data, enterprise is accelerating big data applications in all walks of life, not only for people's shopping, travel, friends offer help, even



still build national governance system, marketing management, production management, card vouchers Play a role in the market and other fields.

However, unwittingly, the first contradiction has been laid here, that is, the contradiction between the rapidly developing technology and the slow-responding regulatory measures.

The technology that allows us to enjoy convenience has unwittingly become a means for some unrestricted big companies to do evil.

When we complete a purchase, the ads on the browser all become similar.

When we completed the registration of the financial A PP account, the phone of the small loan company came to the door.

When we visited page advertising, sales calls will be ringing off the hook.

Even the news of big data "killing" is not uncommon.

Modern society is convenient, but also no privacy when we are in the social platform to upload photos, search the electronic business platform, the choice of end point on the taxi platform, our privacy is like a small saw the end of Xi, along with the privacy of countless others, has merged into a vast data stream and has become a source of traffic for many stakeholders.



This is the second contradiction caused by the abuse of data: the contradiction between privacy and convenience.

On 2018 March 18th, "The Guardian" reported proved, Facebook intervened 2016 US election is the result.

A data company called Cambridge Analytica illegally acquired 50 million Facebook user profiles without user authorization, predicting their political preferences based on each user's daily preferences, personality traits, and educational level. The precise push of the news, to achieve the purpose of brainwashing, indirectly contributed to the election of Trump.

Then Trump total votes obtained number behind Hillary more than 2,000,000 pieces yet with 290 electoral votes to the White House. There is a saying that Trump 's team has spent more than millions of dollars to hire a Cambridge Analytica company, made accurate advertising, influence the voters waver, and won a decisive electoral votes in key states.

We unknowingly betrayed data, lost privacy, and supported many companies, but they had nothing to gain.

We have even lost the right to participate in political democracy without knowing it. In the whirlpool of power and profit, we don't even have the power to escape. Data peepers have penetrated into every corner of our lives, leaving them, we will be unable to move.



If we don't pursue it, don't shout, don't act, everyone is holding this ostrich mentality, and more vacillating companies will choose to do evil. Because the cost of being condemned by public opinion is too low, or that the inclusiveness of the Chinese is too high.

According to the China Big Data Development Survey Report of 2018, 54.3% and 48.8% of the data of traditional manufacturing enterprises came from their internal production data; only 48.8% of the enterprises in emerging industries came from their customer data. Remaining 50% comes most from external data sources.

How many compliance, legal, and reasonable channels are these external purchases? This scale is in everyone's mind.

## This is the age of faith and the age of doubt.

In addition to the violation of privacy rights, the abuse of data can even lead to the looting of our right to profit, and even ruin our thinking.

Attention is an extremely limited resource that is difficult to regenerate and irreplaceable over a certain period of time.

Some companies use big data technology to unwittingly take our attention and direct it to something that is not valuable to us in order to generate revenue.



When we watched a game video on APP, other platforms registered with the same mobile phone number would recommend the same video to us, and even lead to some unbearable content.

People tend to be entertaining, laziness is more human, and they can't wait to get what they need.

Unfortunately, most companies are guided by traffic, as long as they can increase traffic and retain user time, they will do everything.

A variety of entertainment gossip, vulgar video and edge ball content will be good, prompting users to click under physiological impulses, and is very popular.

This type of traffic is aggregated into "big data", which allows people to continue to ponder and improve the public's preferences:

The more vulgar the more spoofed content, the more users like it, the platform will continue to recommend, and even encourage users to upload their own videos, which can not only entertain the public, but also solve the problem of food and clothing.

According to the China Big Data Development Survey Report of 2018, 87.6% of China 's unstructured data (Note 1) has exceeded half of the total. Among them, the proportion of enterprises with unstructured data ratio exceeding 90% is 16.2%; the proportion of unstructured data accounting for 70%-90% of total data is 55.8%;



the proportion of unstructured data is 50%-70%. The proportion of companies in the business is 15.6% .

Where does unstructured data come from? It goes without saying.

The effect of bad money expelling good money has been successfully fulfilled in our time, and the law of deformity has been successfully retained by us.

When more and more inferior articles easily break 100,000 readings, the author no longer writes for hobbies, but runs on numbers, focusing only on the number of spreads and abandoning the quality of the articles.

When a three-owned company easily earns the highest turnover in the industry by purchasing a search engine, more companies are no longer concerned about technology development and production quality, but are rushing to advertising.

Unscrupulous merchants ponder how to stimulate the nerves of most people, even if it is a disrespectful behavior to force users to read and deliberately guide users to consume.

Because there is "data", the longer the number of words in the article, the less patience the reader will read, and even the long article will start to suffer.



Because there is "data", wherever we look, it is full of consumer traps and monetization tricks that are carefully crafted by unscrupulous companies.

Why is the shaking sound listed? Why is Baidu the highest profit margin among first-line Internet companies? How did Wei Zexi's classmates die for medical treatment on the Internet?

Companies that rely on "data" to do evil eat too many people.

We are in the era of information explosion, and we are full of eyes and empty hearts.

# Everything is in front of people, and there is nothing in front of people.

Unscrupulous business, wearing a mask.

Putting on the stage,

selling our privacy, poisoning our nerves, infringes on our interests.

Produce a large amount of data waste, or force or guide us to eat data waste, and contribute to their bloody benefits!

Our requirements are too low, so these companies are comfortable with the status.

Each of us has the power to safeguard personal privacy!

Living in this data age

is to make life respect



Instead of completely losing your dignity!

Information data monopoly of the new means of production caused by centralization, exploitation and new class divisions, the vast majority of ordinary people in a new value system never far away at the lowest end, the Matrix is a bio battery and I do not know It is also powerless.

The new technology has brought new hegemony, and such oppression and blood-sucking are more subtle and more difficult to break free.

But this world should not be like this. The original intention of the new technology must be to bring a good life. Technology should not be evil, our privacy should not be violated in secret, and the data can certainly create value on the right path.

In order to change this kind of contradiction,
the Magic Data Chain (Note 2) project came into being, and the
MDC team decided to fight all these "bad"!

Our team has a technical singer from the Google data team who is deeply aware of the "helping to abuse" and jumping out of the cage.

There are civil servants from the former state ministries and commissions from Chang' an Street who have not changed their minds.

There is an idealist who traveled around the world and worked as a volunteer for ten years in Myanmar.



There are also more companies in Amazon, Citi, Huawei, Baidu, Tencent, and JingDong, in the fields of Internet finance, asset securitization, blockchain, big data, edge computing, 5G communications, etc. Years of research, design, and development.

We are not saviors,

I also have no right to change the trajectory of the world works,
I have just the world of ordinary citizens.

We hope to use the director's own use of district block chain male chain technology, distributed edge computing, smart contract, to reintegrate encryption technologies such as storage, loading a mathematical model of financial well-designed hardware and software to provide users with the most secure Trustworthy, data storage, use, financing and other services.

In the future, MagicData Chain will form a decentralized digital economy, enabling users to enjoy the digital life and deserved benefits of the entire scene based on the corresponding images of their own authorized data through their digital identity that cannot be tampered with.

Let technology stop doing evil and let data generate value.

This world deserves to be better.



#### Note:

1 , unstructured data structure is irregular or incomplete data, there is no predefined data model, the database is not convenient to represent two-dimensional data table logic. Includes office documents, text, images, XML , HTML , various reports, images, and audio / video information in all formats .

Unstructured data generally comes from informal data collection approaches.

2. Magic Data projects, in short MDC.



## **II.**The project introduction

## 1. About MagicData Chain

With the further development of technology and the awakening of user awareness, privacy protection is gaining more and more attention. As collectors and analysts of big data, it is necessary to strictly abide by relevant laws and regulations and fully consider user rights and social influences.

MagicData (Magic Data) Chain is committed to solving the dilemma of privacy and convenience, MDC project to block chain well chain technology as the foundation, will be distributed edge computing, intelligent contracts, deduplication and other storage encryption technology integration, well-designed financial load Mathematical model, software and hardware combination to provide users with the most secure and reliable, data storage, use, financing and other services.

In traditional networks, user data is collected directly by the centralization organization and used for commercial purposes. This collection is sometimes authorized by the user, but currently more is collected and used without the user's knowledge.

MDC team by building a distributed storage, tamper-proof and absolutely safe data link network of public , private users to key the EU



data entirely in their own hands, no one else can privately view, can achieve secure storage of user data, calculation, transmission.

In the MDC network, any data that can be collected is authorized by the user and cannot be tampered with on the blockchain, which greatly improves the authenticity of the data. On the one hand, the data provided by the user indicates that the user does have strong subjective requirements. These data are more accurate and accurate for precision marketing. On the other hand, the characteristics of the blockchain ensure that the data cannot be tampered, greatly reducing the possibility of data fraud. Sexuality makes the data more informative.

In addition, users can also by private key to data licensed to companies, to provide users with personalized service; and the traditional network is different, this part of the revenue generated data, it will be returned to the user.

The MDC network feeds back the benefits generated by user data to the user, not only the recognition of the value of the user's data, but also greatly enhances the sustainability of the connection with the user. The user will regain control over his or her own data and the value of the data, becoming the true owner of his data.

The MDC network allows the value of data to return to users, and establishes an equal, healthy and sustainable relationship with users, which not only benefits users, but also contributes to the long-term



development of the MDC network itself and the realization of the vision of MDC to build a new economy .

We hope, users can self- determine their every click, every photo, every act.

We hope that users can decide for themselves whether this data is their own secret or can be used to make the world a better place.

We hope that privacy will not be violated, that technology is no longer used to do evil, and that data can generate real value for the owner of the data.

## 2. PoSA - MDC mining consensus algorithm

### 2.1. The principle of consensus algorithm

In Magic Data Chain stores the calculated data transmission consumes memory, CPU, flow and other resources, the user needs to mortgage Magic Data Coin (the MDC) to obtain relevant resources. MDC acquisition and system described in detail below.

The user through the mortgage after acquiring resources

MDC, they can be soft \ hard minerals were mining, the core values that

contribute more data and create more value with data.

This is the mining mode of the MDC project: PoSA ( Proof of Staking and Action ) -holding and activity certification mechanism.



### 2.2. Mathematical Model of MDC Mining Consensus Algorithm

The user obtains the computing power through the mortgage MDC, which is recorded as  $p_u$ , the count of the power of all users on the platform is recorded as  $p_A$ . With a variety of behaviors within the platform to create value for the entire platform, behaviors can be as hard and soft mining tasks, push Wide-propaganda, various activities of support and to contribute to the platform of the value of output and so many other shutter modes. For the various behaviors performed on the platform, there is a benchmark rate, which is recorded as  $r_x$ . So the count rate a user can get with a single behavior,  $R_x$ , is:

$$R_x = \sum r_x \cdot (1 - \frac{p_u}{2p_A}), \qquad \sum R_x \in [0, 1]_\circ$$

The platform will distribute the computing power according to the computing power and count rate that users have. A user can get a benefit of  $m_u$  and  $m_u$  can be calculated as follows:

$$m_u = p_A \times \sum R_x \frac{p_{u \times \beta_u}}{\sum P_a \times \beta_A} \times M_{\bullet}$$

Where  $\beta_u$  is the weight of this user's computing power, and M is the total amount of MDC mining, every 2 years it will be halved.

The actual computing power will be distributed after that day.

### 2.3. Operator force weighting factor



The user power weight factor is the sum of the user's mortgage weight and the promotion weight, and is designed to accurately assess the user's contribution to the ecology.

The product of the user power and the weighting factor is called the user effective power.

The blockchain mining of POW (Proof of Work) model such as

Bitcoin consumes a lot of social resources and is a crime; while

Magic Data Chain's POSA data mining is constantly creating value.

(Scenario-based data diversion, modeling, edge computing, etc.), this is a sustainable model with new technology guidance.

## 3. MDC application model

In the early stage of establishing consensus, the centralization will interact with the Internet entity. At this time, it mainly generates revenue, and the repurchase guarantees the value of the token;

When the consensus is established, it will be developed based on the public chain. At this time, all application circulation will be based on MDC tokens. By adding application scenarios and giving the token value, the real value of the token will be given (this is not BTC or ETH). Having).

Based on the underlying data MagicData Chain of us in the middle it developed based on artificial intelligence model data



warehouse, so, the upper layer can be carried out on major business scenarios such as loans supermarkets, precision marketing, precision browsing, intelligent recommendation and other services.

The proceeds from the data will all be used to repurchase MDC repo destruction in the secondary market, and the deflationary economic model will ensure the appreciation of the currency and continue to strengthen the MDC ecological consensus.

In the future, MagicData Chain will form a decentralized digital economy, enabling users to enjoy the digital life and deserved benefits of the entire scene based on the digital image of their own licensable digital identity.

MDC project through the block chain technology, so that the above vision into reality; Next, the Magic Data is also through big data and artificial intelligence technology that allows data authorized maximum value user feedback. In addition to being used for personalized services, this part of the data will be used to build big data models, break the barriers to information silos, and assist social organizations in public data collection and improvement .

MDC project will also launch information collection hardware, when you gallop on the road, you might provide electronic map real-time traffic, and because the data they provide access to appropriate remuneration, complete a labor business practices have value.



Finally, the Magic Data of the line to achieve interoperability at online, with a total of all things, the integration region block chain, large data. 5G communicates with the artificial intelligence technology established through permit economic system, creating a new global digital economy.

## 4. MDFS: Magic Data-Distributed-File-System

MagicData aims to establish a high-performance, high-availability data privacy public chain, providing massive users with the underlying service capabilities of data privacy, data validation, and data revenue. A large number of users will inevitably generate a large amount of user data, which imposes extremely high requirements on the underlying data storage capacity. The traditional public chain network essentially maintains and stores the full amount of state data at all nodes of each blockchain. With the accumulation of time, and increased volume of users, block chain classic architecture itself decided no law valid in store expansion. Taking Ethereum as an example, the current blockchain data has reached 2TB. Standard commercial or personal servers have been difficult to carry their data scale. At the same time, adding nodes to the network cannot further enhance the data carrying capacity of the entire network. mention liters. In MDC 2.0, integrating the ideas of IPFS and conducting in-depth research on the underlying technology, we have



designed a ground-breaking underlying storage architecture that guarantees user data privacy through data encryption and data deduplication and data compression technologies. Colleagues, the overall storage performance of the system can be expanded indefinitely.

### 4.1. IPFS advantages and limitations

IPFS provides a very good decentralized storage mechanism that connects countless untrusted nodes, but forms a reliable storage system. This is like Bitcoin connecting unreliable nodes to form a more reliable bank. Financial system.

However, the underlying layer of IPFS does not provide a data security mechanism. Anyone who knows the Hash of a file can access the file arbitrarily. This design is more suitable for storing public information such as web pages, and is not suitable for storing personal data and enterprise data, because both personal data and enterprise data are expected to be stored in a more secure manner, rather than being made public. In fact, IPFS's iconic "Replace HTTP" slogan also reflects this helplessness, that is, IPFS is designed to store public data such as web pages, rather than personal and corporate data.

IPFS recommends addressing some data security issues through file encryption at the application layer, but this is not the fundamental way



to address data security issues. Data security is highly professional, it is difficult to make the application layer, and file encryption at the application layer can not solve the problem of file deduplication, which affects the efficiency and cost of the entire system. At the same time, it is not suitable for application at the user privacy data level.

At the same time, since the data in the IPFS is not encrypted, each storage node of the IPFS can only obtain a copy of the file by actively pinging, so as to support the feature of the node actively selecting the content, that is, if there is no other node ping after a file is uploaded, the whole network There is still only one copy, and it is difficult to guarantee that a certain amount of data copies exist.

## 4.2. MDFS data encryption deduplication technology

## 4.2.1. Data encryption and data deduplication

In MDC version 1.0, we implemented a full set of private data encryption, privacy data chaining, privacy data validation and privacy data storage technology through asymmetric encryption technology. In the new generation of underlying storage architecture MDFS, the scalability of data storage requires a large amount of data copy redundancy in the network. Among different data copies, in the unified



data copy, the duplication of data is the key to improving the data load capacity of the main network.

On the other hand, data deduplication and redundant storage are concepts at different levels. Even if only one piece of data is stored after deduplication, this data must be divided into many segments by redundant coding and stored on multiple different nodes, even if some of the node data is lost without affecting the integrity of the data. The recombination of fragments stored on such multiple nodes is called a piece of data. For example, the same data owned by multiple users will only save one copy of the data by deduplication, but this one has multiple copies, and the ownership can belong to different users.

The data repetition rate is positively related to the number of users and the amount of data: if the number of users is larger, the larger the amount of data, the higher the repetition rate. At the same time, the higher the data repetition rate, the lower the average storage cost. If the average data repetition rate is 10 times, the 1GB space can store 10 GB of data on average, and the average storage cost is reduced by 10 times. Solving the problem of data deduplication will greatly improve the storage efficiency and storage capacity of the blockchain storage.

In traditional storage networks, such as cloud disk, CDN, and even IPFS, the deduplication technology for plaintext files is quite mature.

You only need to compare the fingerprint information of two files to



determine whether the content is the same. However, in encrypted storage application, the above method has failed, two of the same file with a different public key ciphertext encrypted content generated is not the same, the cipher text can not be easily implemented to fingerprint based on the weight, while the fragments of data Storage also makes deduplication more complicated. Distributed storage in a presence of a trade-off, data encryption and data deduplication both straight often can not have both.

MDFS has developed a set of file encryption deduplication techniques using asymmetric encryption and zero-knowledge proof techniques. Using the zero-knowledge verification method, based on the secondary hash, the functions of key-to-file separation, complete ownership authentication, and no third-party pass-through key are implemented, which solves the problem of "convenient encryption (CE) for useless encryption of duplicate data. The problem of computational overhead increases as the data load deduplication rate increases. Even if different users store the same file on the HSN network at the same time, the entire network only needs to save a copy of the encrypted content without worrying about content and privacy leakage, thereby improving the storage efficiency of the entire network.



# 4.2.2. The use of zero-knowledge data encryption technology to reprove

- 1. When user A stores data, he divides  $Data_A$  from large to small(256M, 256K)( When the file is larger than 256M, it is divided according to each block of 256M. When the file is smaller than 256M, each block is divided by 256K, and if file is smaller than 256K, padded to 0). If after dividing,  $Data_A$  comes to  $B_1, B_2, B_3...B_n$  ( $Data_A = \sum B_i$ ), then calculate hash of each block:  $h_i = hash(B_i)$
- 2. According to whether  $h_i$  exists in the mapping table, if so, deduct the corresponding token of user A and update the corresponding relationship between  $h_i$  and  $Node_{E1i}$ , then back, or go to step3.
  - 3. For each calculation block keys seeds:  $seed_i = hash(B_i + salt)$  Calculate the encryption key:  $K_{1i} = Key\_exp$  ansionbyseed(seed<sub>i</sub>)
  - 4. User A calculates:  $E_{1i} = E_{K1i}(B_i)$ , and store data.
  - 5. Calculating:  $E_{PAK} = E_{PA}(K_{1i})$  and store it on the node:  $Node_{E_{PAK}}$ .
- 6. Add the corresponding relationship mapping table corresponding to the node.

### 4.3. MDFS main network fragmentation

MDFS preprocesses stored data by splitting the data file into multiple pieces and storing them on different nodes. Each node only



needs to process a small number of incoming transactions, and through a parallel processing with other nodes on the network, a lot of verification work can be done.

In the MDFS network, the blocking technology has multiple meanings: in the super-node network, the fragmentation technology is used to improve the speed of TPS and smart contract execution; in the private data storage node network, by computing-intensive and storage-intensive tasks Sharding improves the computing power and storage capacity of the entire network.

### 4.3.1 Fragmentation Algorithm

The core concept of MDFS has the principle of Incremental Scalability, which requires a mechanism that can dynamically slice in a group of nodes. This mechanism is also called DHT (distributed hash table). MDFS can distribute the load to different storage nodes reasonably. MDFS's fragmentation strategy relies on Consistent hashing and further adjustments to the heterogeneity of nodes. The algorithm we use is called the MDFS-intellectual- sharding algorithm. The main steps are:

(1) Firstly, the clustering algorithm is used to classify the device set, so that the weight difference of the devices in each class is within a preset range;

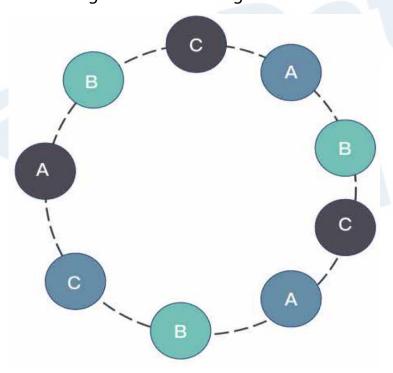


- (2) After completion of the clustering , between class layout mechanism in accordance with the class right weight of [0 , 1] interval into a plurality of sub-sections , assign each class a subinterval , the fall of a data distribution to a corresponding subinterval class ;
- (3) internal layout of each mechanism using the same hash class method of distribution data again, the data layout on a specific device.

The above algorithm can be simply understood as that all keys

(Key) get a unique value through the hash function before storage.

MDFS constructs a special logical structure, and all the constituent units are connected together to form a fixed-length ring. The maximum and minimum units of the ring are connected together.



Each node is assigned a random location in the ring by MDFS,



and this node will process all keys from the hash output before the current node. Suppose there is a key-value pair (key, value), and the result of Hash(key) is located in the green area in the above image. It is searched in a clockwise order from the position in the ring. The first node found, that is, node B. It will become a coordinator. The coordinator is responsible for handling the current key-value pairs, and each node in the above image is responsible for the same part of its color. MDFS order to achieve high availability and durability, to prevent the node dang malfunction cause data loss, with the copy of the data backed up in the coordinator and subsequent nodes N-1, N is a configurable value, in general In the case of all three.

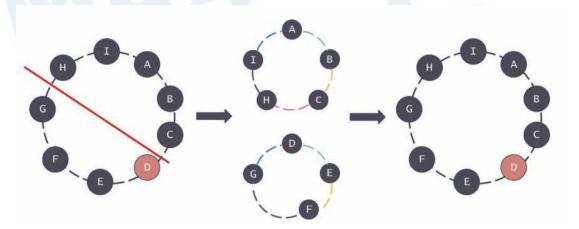
## 4.3.2 Partitioning algorithm

In order to balance partition availability and partition consistency in special cases such as network disconnection, clustering and partitioning functions are also provided in MDFS. Because in this MDFS, data files are broadcast to the entire network, and an excessively large single cluster may cause network message propagation and congestion in extreme cases, MDFS provides geolocation-based clustering and fragmentation capabilities. Whether the nodes are located in the same equipment room or in different machine rooms, network failures may result in partitioning of the virtual ring. After partitioning, the node



joining and exiting mechanism of the MDFS causes the nodes of each partition to form a new virtual ring. The formation process of the new virtual ring is completely automatic, and no operation and maintenance personnel are required to participate.

Suppose there is a virtual ring with some nodes in the European data center and some in the Asian data center. If the network connection between the two data centers is interrupted, MDFS will form a new virtual ring in each data center. After a while, communication between the European data center and the Asian data center resumed, at which point the two virtual rings need to be merged. We can specify some special landmark nodes. All nodes in the ring without the landmark node first leave the ring they are in, and then rejoin the ring where the landmark node is located. After a while, the entire system has only one virtual ring left.



MDFS implements the efficient use of storage space through the encryption deduplication algorithm. It guarantees the maximum



horizontal capacity expansion through fragmentation and partitioning algorithms, and at the same time takes into account the partition availability of the node network. The underlying new architecture of MDFS will revolutionize the underlying storage architecture of the Magic Data public chain , providing encryption and storage services for massive user and user data, and will truly hand over data ownership and data revenue rights to the participating networks to each user.



# **Ⅲ**. Magic Data Coin (MDC) introduction

## 1. About MDC

MDC( Magic Data Coin ) is the basis of Magic Data Chain network operation. The storage, calculation and transmission of data need to consume memory, CPU and traffic. The mortgage MDC can obtain related resources.

MDC overall circulation of 1, 200, 000, 000 (1.2 billion), MDC release and lock positions allocated are extremely transparent and open, there is only consumption, will not and can not be additional.

## 2. MDC distribution

The total amount of tokens is 1.2 billion, and will never be issued. The tokens are distributed as follows:





# Cloud server pre-sales donated 160 million (accounting for 13.33%)

when Magic Data network boot, each data node including the establishment of a data system needs to MDC, so the network reserved for the 160,000,000MDC to early participants. 8 of 0% through permit the access to early participants remaining two 0% of the M the DC-pass card for community awards.

### MDC team incentives 240 million (20.00%)

Incentives include R&D teams including MDC founding teams and global development contributors, as well as follow-up talent introduction incentives.



It will also be used for exchange currency fees, marketing expenses and team operating expenses when appropriate.

The release rules are as follows:

- 1) Among them, 80 million are fixed locks, and 12.5% are released every three months from the beginning of pre-sale, and completely released in two years;
- 2) In principle, the QDC team will permanently lock the position, and the MDC team will only unlock the part in combination with the community's opinions and actual needs under certain circumstances. Such as market expansion, exchange currency, channel promotion, etc.;
- 3) 080 000 000 release schedule with the mining, mining a total of 800 million, so every mining released 10 MDC, Team 1 release Ge MDC.

## Soft mining 400 million (33.33%)

The M agic Data network mines the PoSA ( Proof of Staking and Action ) consensus algorithm, of which 20% is used to reward super nodes and 80% is used to reward miners. Detailed rules are as follows [ 3, MDC mining mode design]

There are 24 super nodes, one block every 3 seconds, and the mineral halving cycle is 2 years. The user needs to freeze (Staking) the MDC to get the power (similar to the BTC mining machine), and at the same time, the data contribution (Action) on the APP



is calculated (compared to the power required by the mining machine), and finally based on the output, the whole network. Operators force accounted ratio, considered the state rate of output per day of MDC allocated.

#### Hard mining 400 million (33.33%)

Similar to soft mining, the main difference is the acquisition of hard mining rate, no longer relying on the data contribution in the APP, but the data acquisition and application through professional hardware.

Hard mining will be on the soft mining line, and the MDC public chain network will be gradually opened to users after stable operation.

## 3. MDC mining mode design

## 3.1. Mining node

The frozen MDC represents the magnitude of the power of the node mine, and the MDC production rate is halved every two years for the miners to obtain .

The mining machine also needs to use the calculation rate. The calculation of the calculation rate is generated by the user's behavior (zero daily). The calculation rate for different soft / hard tasks is different. According to the size of the mining machine, the standard of the full calculation rate. different.



Number mining calculated: total \* ( the user active computer power / network-wide efficient operator force) \* (day count rate / full rate count)

For the part with insufficient calculation rate, 50% is used for destruction, 25% for calculation ranking reward, and 25% for calculation rate award.

### 3.2. Super node

Super node out of the box rule: select 24 super nodes, and block out every 3 seconds.

Super node campaign rule: According to the lock position to obtain voting rights, the highest 24 nodes are super nodes, updated daily .



# IV. Magic Data Chain technology introduction

# 1. Public chain architecture

MDC public link Mining Use multilayer architecture separated:

Application layer: application layer support

wallet, DApp (Decentralization APP), block browser, exchange and other development framework and development capabilities, this part contains content according to the project route and project budget adjustment specific considerations real-time case.

Privacy data layer: Contains functional modules such as privacy data confirmation, privacy data digest, privacy access control, privacy access audit, and private data storage.

Contract layer: Data model calculator, oracle.

Nuclear Center Weighted Code Using the Java S cript
and C ++ development, Java as a mature language for object-paradigm
programming language, the code layer fully considers maintainability,
debug, rationality code architecture to ensure code readability.

Incentive layer: Built using standardized tokens.

Consensus layer: PoSA consensus mechanism, see [II. Project introduction - 2 , PoSA - MDC mining consensus algorithm]

Network layer: Kademlia P2P.



Data layer: Contains modules such as blocks, accounts, and digital identities.

Physical layer: use 5G network, supernode mechanism, the data storage node of the whole well-chain escort to protect the system.

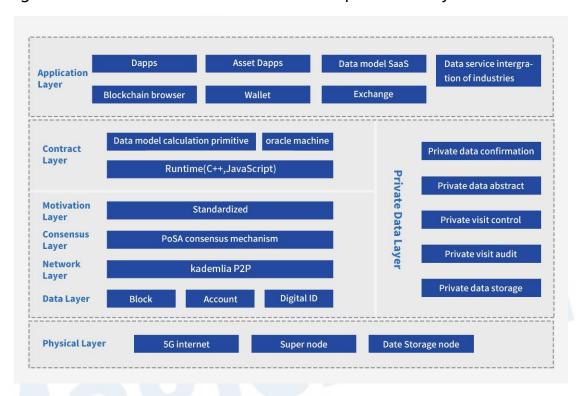


Figure 1 – Magic Data Chain architecture model

# 2. The characteristics of the chain

Based on this architecture, the MDC public chain architecture has the following core features:

# 2.1. Encryption security

The MDC public chain is implemented through cryptography, focusing on user privacy and privacy data.



Through cryptography and data encryption, all write, read, and access rights of the user's private data are guaranteed to the user, and any value based on the user data is completely returned to the user.

## 2.2. Massive data storage

The MDC public chain has high storage capacity to carry a wide range of social digital economy application data access needs.

## 2.3. High performance

To achieve the wide application of the social digital economy and the user's chain storage and chain computing goals, the MDC public chain can provide ultra-high performance, including ultra-high performance indicators in network access, data storage, sequential computing, parallel computing and other aspects.

# 2.4. The most competitive total operating cost

With the development of technologies such as cloud computing, cloud storage and blockchain, traditional cloud computing companies represented by AWS, Alibaba Cloud and Azure, and third-generation blockchain applications represented by Ethereum, EOS and Wavefield, is constantly reducing the use and operating costs of developers and businesses. The MDC public chain has designed an adaptive operating



system from the technical architecture and economic model level, allowing users to access the network free of charge, developers to publish applications for free, and to create effective profit models for developers and enterprises.

## 2.5. Support for new software development process - DevOps

As application requirements continue to diversify and blockchain infrastructure continues to evolve, complex scene applications that are completely independent of the central server will become mainstream. Therefore, MDC public based on intelligent contract opened on the chain issued DAPP applications to meet user demand for rapid iterations to meet developers to use modern software development processes and operation and maintenance processes demand.

#### 2.6. 5G empowerment

In the 4G era, data is usually accessed at the access layer, aggregation layer, and core layer, and service data is processed centrally in the core network. This centralized working mode is difficult to meet the requirements of low latency, large bandwidth, and multiple connections in 5G application scenarios.

In the 5G era, for different business scenarios, services will be distributed in different nodes. The MDC public chain is fully compatible



with the 5G standard at the design level, and the 5G high-speed network supports the complex calculation and massive data at the bottom of the blockchain.

# 3. Core technology

## 3.1. Privacy data confirmation

The privacy data includes the following steps: privacy data chaining, privacy data permission control, and privacy data access auditing.

## 3.2. privacy data on the chain

As a distributed and credible trusted account book, blockchain provides a good means of value storage. However, the blockchain technology itself only provides the inevitable modification of data on the chain , ignoring the process of data from the chain to the chain. . To ensure the credibility of this process, the MDC public trust data component is customized to standard data access and authentication interfaces, such as verification of personal identity in China, the agreement will use the two elements provided by the public security (name + identity) Certificate number) Verification interface; or bank card information, which needs to be verified through the bank's interface.



Process chains on all that data, one needs to rely on traditional data sources do check the credibility of user data, on the other hand, all of the data process chain requires private user identity key licensing to ensure that user data The source must be derived from the user of the user. Through digital signature technology, trusted third parties can sign the verified data. The signature not only guarantees the unmodifiedness of the data after verification, but also contains the identity information of the trusted third party, allowing all people to disclose this information. Signature for identity verification.

## 3.3. Privacy data permission control

The MDC public chain provides standardized tools that allow users to self-collect their own Internet data and save it to the chain via asymmetric encryption for storage by users. Through the data key, the user holds the right to control the data. Users can decide who can use their personal data. At the same time, the MDC public chain innovation introduces the data transaction type transaction, and the data exchange process is completed through the blockchain native transaction, and all the blockchain super nodes encapsulate the package transaction, ensuring the irreversible and network consensus of the data exchange process. The data exchange process is completely



encrypted and permanently stored, which fundamentally resolves possible repudiation and disputes in data transactions.

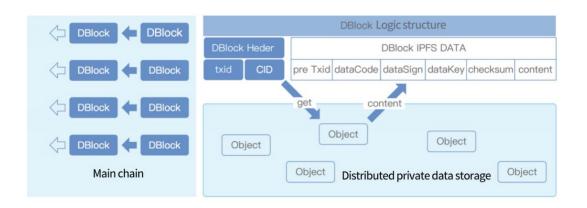
At the same time, from the design of the public chain, it ensures that the value generated by the user after each authorized use will be owned by the user himself.

## 3.4. Private data storage

Distributed storage: By distributing data in a distributed manner outside the chain, it can not only make rational use of the main chain storage resources, but also allow data to be selected in terms of privacy storage and public access.

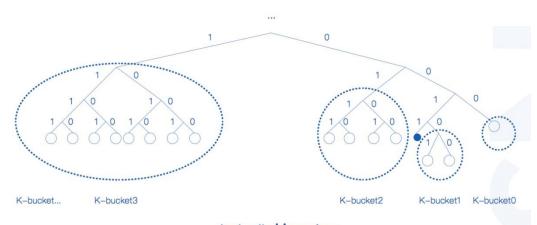
Verifiable data storage: The most important thing about trusted data storage based on blockchain is the inheritance of the blockchain distributed account book, ensuring that the data is not modified, so verifiable data storage is essential, through digital signature In the form of a private data digest, the MDC public chain can store data and store verifiable file indexes and hashes on the main ledger.





#### 3.5. Private data node

MDC male chain introduced the concept of private data node, storage node data privacy mechanism as a necessary complement to a super node, you can sink intensive computing business to private data storage node, which helps reduce response delay and bandwidth costs, to meet The need for various data scenarios under a centralized architecture model.



kademlia binary tree

As a source of massive computing and mass storage resources, the private data node ensures that the private data node provides the



efficient, reliable and reliable blockchain network service for big data storage and data model calculation by allowing the super node to guarantee the private data node.

The privacy data node data storage uses the improved version of the kademlia algorithm to implement data storage and retrieval.

# 4. Fragmentation technology

M the DC public link treat the stored data preprocessing, i.e. divided into a plurality of pieces of data file, and store it in the different nodes. Each node only handle a small portion of the incoming transactions, and through other nodes on the network parallel processing, will be able to complete a large amount of validation work.

In MDC networks, the fragmentation technique has multiple layers of meaning:

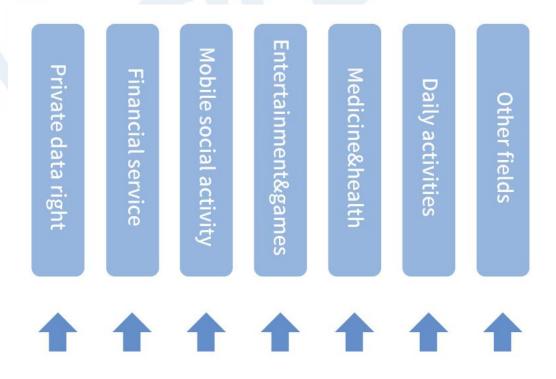
- 1) In the super-node network, use the fragmentation technology to improve the speed of TPS and smart contract execution;
- 2) In the data storage node network, improve the computing power and storage capacity of the entire network by fragmenting computationally intensive and storage intensive tasks.



# 5. Side chain technology

Sidechain technology can provide transactional efficiency and provide new features such as privacy protection based on the MDC public chain backbone. When users use these new services, they will not have any impact on the main chain to meet different industry application needs in the next 5G era.

Circulate on more blockchains by side chain anchoring. Developers can develop different sidechains to access the MDC public chain based on the needs of the business model. Side chain technology further extends the range of applications and technology innovation space block chain, the MDC public chain can support support a variety of asset types, and can create smart development contract in the side chain DAPP.





# 6. Application scenarios

The MDC public chain is positioned on the value network of trusted data to serve the global data economy market. The high performance of the MDC chain, the rich chain of functions and the massive data on the chain have laid a solid foundation for large-scale commercial use.

The MDC public chain has built a comprehensive infrastructure for the data economy, enabling many commercial applications to provide users with quality products and services based on the MDC public chain .

The blockchain technology solution provided by the MDC public chain can solve data ownership, dominance, income ownership, data leakage, data authenticity and data uplink incentives in various fields.

In the near future, the data economy will be based on the MDC public chain, including but not limited to personal data rights management, financial services, mobile social, entertainment games, medical health, food and clothing, and inter-enterprise information sharing. Inter-city government information exchange and so on.



# V. Mission and mission of MDC

# 1. The MDC came into being

## 1.1. Big Data industry is on the eve of change

From agro-industrial civilization to the digital age, key resources vary.

In agriculture, the most important natural resource is land. The antimonopoly during the farming period is mainly to curb land annexation and concentration--inhibiting the emergence of the local tyrants and a large number of displaced landless peasants, so that the cultivators have their own fields.

In the period of industrialization, antitrust and patent law is that when two kinds of important laws, it was the point of industry, energy or financial oligarchy's monopoly markets and technologies.

So what is the most important resource in the current era? No doubt it is data!

Data is the most important energy-century development of the industry in 21<sup>st</sup> century, there is no data, industry and thousands of jobs will cease to exist, the development of human civilization will be thousands of miles back.



In the post-industrial civilization period, human society gradually entered the period of informationization and digital chemistry. Human activities are more closely linked, and time and space are greatly condensed.

In the early days of the Internet industry, we found that there are very few industry-leading companies. For example, the head-end portals probably have only three or four remaining, and the market influence of the companies behind them has been very weak. During the period of interconnection, we suddenly discovered that the digital oligarchy was too late to emerge.

Data oligarchy absolutely monopolizes specific industries. For example, in the payment field, only one or two may occupy 99% of the market share or even more.

The data oligarchy is absolutely closed to monopolize specific industries, and its expertise is "closed loop." The form of monopoly in the data oligopoly is also more diverse, not just monopoly technology, monopoly market, monopoly consumers and monopoly products; more importantly, this is a super platform monopoly, leading to a so-called "closed loop "Data monopoly." This is enough to protect the monopolist from self-expansion in the monopoly.

Today, data monopoly issues have become prominent in the digital age, with competitors being rejected, consumers being exploited by



them, and even government agencies , including central banks , are uncomfortable .

In May 2017, the British "Economist" magazine published an article titled "The World's Most Valuable Resources Are No More Oil, But Data", bringing the importance of data to an unparalleled height. It is more important than oil in the industrial period. Data is the most important resource in the digital economy. Once it is separated from it, we cannot make all kinds of effective and accurate decisions.

The reason why data has become so important now is that it presents four different characteristics:

The first characteristic is the scale of the data, which is what we usually call the big data period;

The second is the diversity of data, which used to be parameterized or structured data. Now there are more and more diverse and diverse data.

The third feature is that data is being generated faster and faster;

The fourth characteristic is the increasing value of data.

But as the value of data becomes more and more formalized by the world, the series of problems (and even the consequences) brought about by data monopoly contradicts our urgent desire for data technology advancement.



First, data monopolies are often associated with closed-loop superplatforms, and consumers are also producers of data, making the triangular relationship between platforms and merchants, platforms, and consumers or users particularly complex. The relationship between the platform and the merchant, and the relationship between the user, from the sun healthy difference of at least 10 million years.

Second: market competition has become distorted.

Data oligarchy makes competition in the industry very difficult and cross-border competition has become very difficult.

Those companies that rank after three or four in the industry have become particularly difficult or even impossible if they want to grow, or want to break through data silos and use more data mining to form their own differentiated competitive advantage. Because the problems that these enterprises must face first are not the shortage of human resources, capital, technology, etc., but the data resources are not available. You have a good new engine prototype, there is no data to run back and forth many times, how can technology have a market-oriented conversion opportunity?

Third, it is increasingly difficult to protect consumers.

What people know most is the so-called "data killing" behavior. In fact, outside of this, they can also take actions such as data tags to hurt consumer rights, that is, the picture is so precise that you can see what



you want to see, but Most of the truth has been overwhelmed until you can't see it. This is also very painful. Imagine if there is a certain amount of data sharing, then when there is data to kill, at the same time, there will be tools in the market to help consumers "anti-kill", and the road is inevitable. The moment is often the one-man show of the unicorn.

More importantly, in the case of data monopolies, the issue of legal contracts that protect consumers becomes extremely complicated.

In the data age, from the supplier, the dealer, to the logistics, to the platform, to the time when the consignee receives the goods in time, etc., the contract parties involved are not only the two parties. It may involve " ABCDE" and so on. Therefore, in the end, consumers can get the product goods that satisfy him. From the source, to the dealer to the logistics, etc., there may be a gap, so consumer protection becomes more difficult.

Similarly, if consumers are to defend their rights, then the relevant government departments or consumer protection departments must obtain appropriate rights to share relevant data from the data subject, but how the boundaries of this degree are clarified is currently vague.

Fourth, data monopoly often leads to barriers to the use of big data processing technologies.



In other words, the original data as a resource can be deeply explored; but once the data is monopolized, the technological progress related to the data may slow down, forming a disconnect between technology and data, which is the development of the entire industry. It is also extremely unfavorable.

At the moment, the rapid development of blockchain technology provides us with a solution to these challenges.

A country assumes that there are 100 banks, so each bank issues a bank card. If the bank card can be universally interconnected in various institutions, how many special lines do we need to interconnect the data centers of each bank?

According to mathematical calculations, we need about 4,950 lines to enable 100 bank cards to be interconnected. To add another card issuer, you need to add 100 special lines to connect and interoperate.

Such a solution is feasible in the traditional technology field, but there is no doubt that the cost is too high and the difficulty is too high. Block chain technique but can be a Magic Data of well-chain, substituted. 4 950 strips in the line. The banks in the above examples can not only perform separate peer-to-peer interactions on the Magic Data public chain, but also enable a bank card to be used by all merchants, even in the digital economy era, to give users more rights



and convenience. All of this is achieved under the protection of privacy by blockchain technology.

The anti-monopoly on the data market is necessary and the protection of the data rights of the people is beyond doubt. At the same time, once this social trend begins, it will not and cannot stop.

Because the data is constantly being produced and constantly changing. At the same time, the data has a "half-life" or may also be called a "shelf life", ie:

The data that is longer than our current time, the lower its value, and it can be relatively discarded; the more commercially valuable and strategically meaningful data is the fresher and more recent data.

At the same time, with the advancement of technology. The data we generate every year and can be collected and utilized is 5-10 times the previous year. From this perspective, the task of data rights protection will increase tenfold every year, and the Magic Data project also has its sustainable existence.

# 1.2. Blockchain industry value era outlet

On October 24, 2019, Xi Jinping, the general secretary of the CPC

Central Committee, first proposed the concept of "blockchain+" in

the speech of the Politburo collective learning. In several key areas, such



as digital finance, Internet of Things, intelligent manufacturing, Supply chain management, digital asset trading, especially in the segmented industry of blockchain as the underlying structure, we must accelerate industrial development, give play to market advantages, and further open up the innovation chain, application chain, and value chain. To build district block chain of industrial ecology, speed up the depth of integration block chain and artificial intelligence, big data, networking and other cutting-edge information technology, to promote the integration of innovation and integration applications.

The blockchain is an emerging technology field, and there is no generation difference between the East and the West in terms of technology. In terms of market size, the mainland China market is half of the blockchain industry.

therefore. The speech of the number one figure in Chinese politics has brought a wave of take-off to the global blockchain industry.

Di First, this means at least to block chain hoist and Internet technology, artificial intelligence and other mature technology industries height of the same level.

Second, before governments from not included in the block chain hard science and technology category, the Chinese clearly an important breakthrough in the block chain as the core technology innovation, to address the role and status of the block chain.



Third, blockchain, as an interconnected technology, is most likely to become the infrastructure of the digital economy, so integration with other hard technologies is extremely important. The official statement confirms this assertion.

Fourth, the core message revealed by the official Chinese speech is that the development direction of the blockchain is to defy the reality, empower the entity, and improve people's livelihood. At the same time, digital finance and digital asset trading are mentioned. The high probability of digital assets here refers to the digitization of legal digital currency, physical and financial assets, and the data assetization that is about to become the next outlet.

As a pole of the blockchain industry, the Chinese government 's demonstration of the development status and trends of the blockchain industry has undoubtedly brought global attention to the entire industry.

From the year of the year of 018, the Magic Data MDC has perfectly caught up with this wave of times.

# 1.3. Digital asset allocation opens up new investment areas for the people



In the context of the global economic downturn, one of the predicaments faced by global investors is the shrinking of investment channels.

Traditional investment fields have low returns, opaque insiders, and frequent hardships in black-box operations have left traditional investors uncomfortable.

The wave of asset digitization has provided investors with a new and exciting new track.

#### 1.3.1. Public investment in order to promote economic development

2 008 after the end of the global financial crisis, the Fed's quantitative easing policy for the US stock market to bring 1 0 historic bull market years. However, in today's global trend of globalization, the US stock market has gradually become a passive water.

Enter 21st century, China 's real estate market growth for nearly two decades under, in recent years, "room to live not fried" policy call, China's real estate has basically bid farewell as an investment target of the stage of history.

It should be said that this is a good thing, and it is a milestone stage in which the global investment market has faded, it has become reasonable, and the financial market has become more mature.



In a mature capital market, financial investment channels should be rich in types, rules and regulations, open and transparent, and regulatory compliance with laws and regulations.

The Magic Data will be a complex multi-link, multi-role in the big data industry chain , which will be closely linked by MDC .

In the Magic Data ecosystem, big data industry merchants can complete industrial hematopoiesis and user drainage more conveniently and compliantly.

The general public will receive an investment channel based on the data industry based on the new production relationship.

Magic Data of ecological, users large data consumption and user digital asset investment, big data industry supply-side reform, these three "wagon" will be completely driven for MDC cover all industries, regions, and even by the whole society economic growth Conveying strength.

#### 1.3.2. Mastered the MDC, mastered the wealth

Nowadays, global giants are vying to lay out blockchains and accelerate the arrival of the application era. Digital currency is a tool for value transmission in the function of blockchains, and it is also the main way for investors to participate in blockchains.



Digital currency investments do not need to rely on third-party bank accounts, they can be transferred directly to an individual's decentralized account, which is safe and tamper-proof and easy to access.

The transformation of the Magic Data project to the big data industry is a good cash withdrawal for the development of the blockchain industry.

Once the Magic Data public chain is mature and put into use, the data of the Magic Data user cannot be compromised, destroyed or changed by any other person or single entity.

Magic Data that is a technical standard, a consensus ecology, as well as a financial solution .

Whoever masters the MDC, whoever has mastered the wealth.

#### 1.3.3. BlockChain 3.0 era

The blockchain 1.0 is the era of BTC, representing the decentralized anonymous trading medium.

Block chain of 2 .0 is E TH era, representing the "Code as the law" smart contract.

Block link 3 .0 is MDC era, represents a new entity based on industry reform digital economy .

The Magic Data MDC utilizes the trustworthy and non-tamperable features of the blockchain technology itself and the MDC public chain



efficient distributed storage (MDFS) to allow big data to flow with confidence.

With the development of blockchain technology from 1.0 to 2.0 to 3.0, as the representative project of blockchain 3.0, the Magic Data MDC has reached tens of thousands of times of BTC and ETH in concurrent speed, and the original MDFS distributed. Storage technology is unique. This will drive the application of blockchains in various fields to become more widespread.

Magic Data of MDC project through a multi-signature private key encryption technology, secure multi-party computation techniques to prevent data leakage problem. The use of digital signatures allows only authorized personnel to access the data. The data is stored in a decentralized blockchain. Even if the original data is not accessed, the data can be analyzed. This not only protects the privacy of the data, but also allows designated scientific institutions and merchants worldwide. Sharing and researching it as a basic database for all human beings provides a very convenient big data service for users around the world.

All in all, the application of big data in various fields has developed to the present day. Although it has achieved many exciting results, it also faces great challenges and bottlenecks.



However, the emergence of Magic Datas has made

"blockchain + big data " a greater application value, bringing new ideas
and development directions for the application of big data, making its
application prospects more broad.

Magic Data MDC will effectively promote the blockchain + in the field of people's livelihood based on the big data industry, actively promote blockchain technology in education, employment, pension, provide people with more intelligence, more convenient, better quality, more assured Big data service. In this context, big data will be created with the technical support of the blockchain, which will create the data myth of the era of artificial intelligence, enabling big data to play a greater value.

The perpetual running Magic Data public chain will open a new era of digital economy based on personal data rights protection for users .

Every MDC user is the wave of this wave of great change era!

# 2. Historical mission of Magic Data MDC

## 2.1. Let the data no longer do evil, let the value return to itself

Sum To expand the data changing times leader, using the block itself trusted chain technology, tamper-proof features and MDC well chain



efficient distributed storage (MDFS ) allows large numbers , according to safely flow together.

Magic Data will reveal the value and importance of data privacy to more users, by MDC digital economy in the interests of users deserve feeding data back.

This goal is not easy, but with the progress of time, based on M the DFS of the Magic Data of distributed storage standard will "block chain + big data" had a greater value, brought new application of big data The ideas and development direction have made its application prospects more broad.

## 2.2, technological innovation and international standards

MDC is committed to continuously iterating on basic technology innovations .

In the MDFS standard, we have designed a ground-breaking underlying storage architecture. Through data encryption and data deduplication, data compression technology, the overall storage performance of the system can be expanded infinitely in the privacy of users.

This creatively provides a new solution path and enforcement standard for distributed storage of private data for individuals and businesses.



In the era of "blockchain + big data", the shortest and most effective way to transform any big data business is to access the M DFS standard.

Magic Data for the public chain "block chain + big data " set a new industry performance standards, through the Magic Data Open Developer Alliance, the global radiation.

## 2.3. Industry and value

A blockchain technology solution that cannot be landed can only be attached to industries and clusters, and cannot truly produce intrinsic value.

The Magic Data should be based on the underlying blockchain technology, rooted in the big data industry, integrating IoT equipment network, big data technology, artificial intelligence neural network and other technologies to create a mature "blockchain +" information integration system.

Through technological innovation, we continue to create value for users in the mature application of big data industry.

#### 2.4. Talent and education

The Magic Data ecology has two types of training for talents.

The first is the underlying technical talent of the blockchain.



The Magic Data Developer Alliance will continue to recruit global talents interested in the blockchain industry to continue to iteratively develop various blockchain applications in the digital economy based on the Magic Data chain.

Second, it is the training and education of fans and users.

In addition to practitioners, the development of an industry requires more informed users to pay for products.

Standing on the cusp of the times, the Magic Data project is dutybound to assume the historical mission of awakening the awakening of the people's big data rights.

The Magic Data project will disclose the truth of the big data industry and the value of blockchain technology through a strong community connection and a soft mining mission that fits the industry.



# VI. MDC ecology

# 1. Ecological planning

The MDC ecosystem contains the power of decentralization. We firmly believe that the MDC ecosystem is a powerful step and attempt to resolve the contradiction between privacy and convenience, power and freedom, mutual benefit and self-interest, and can be used in all aspects of society. The operation brings new inspiration and consensus.

MDC is the starting point for a new free consensus society.

How to truly form the MDC ecosystem is the direction we have been exploring.

In the end, we unanimously determined that the real formation of the MDC ecosystem requires the following conditions to be met.

1, MDC holders reached 100 million.

As a basic condition for supporting the ecology, the formation of any Internet-based ecology is inseparable from the participation of users. The number of users will determine the activity and real value of the entire ecosystem.

Facebook's current valuation is 6000 million dollars, 300 million active users, it is enough to become the world's most influential, the most widely used software.



We expect that when the number of MDC users reaches 100 million, it will give the entire MDC ecosystem a sufficiently strong base of vitality and provide effective support for other aspects of the ecology.

2, able to link 20 of the global legal digital currency.

As the lifeline of the encrypted digital currency economy, cash flow plays a key role in the ecological growth of the entire project.

As the world's largest third-party payment platform, PayPal can now support 20 variety of digital currencies global.

We believe that when MDC can be docked legal tender up to 20 species, including the dollar, the yuan, the British pound, ruble, Australian dollar, Japanese yen, Korean won, Australian dollar and other major currencies, and can get through 60 million people pay channels when It will enable the entire MDC ecosystem to gain sufficient and strong vitality to support the commercial ecology of MDC.

3. Connect to 8,000 business entities with data needs worldwide.

When the number of data-demanding and data-based services in the MDC network reaches 8,000, it is enough to make MDC the most influential decentralized data commerce network, completely subverting the "doing evil" values of centralized big data.

4, Ecology DApp number more than 2000, covering more than 30 different industries and fields.



ETH, as the largest DAPP ecosystem, DAPP number is just over 1 000, with a total market capitalization of less than 2 billion dollars.

When MDC has an active number of more than 2000 DAPPs, covering more than 30 when different industries and fields, which will be three times the market today ETH the DApp ecology.

Based on the characteristics of the main chain, MDC DApp will have a profound impact on industries and fields such as insurance, health, catering, energy, services, media, education, sports, and public welfare.

5. In the MDC free network, V9 users exceed 8,000.

8000 Ming V9 user representatives author of more than 1 000 Wanming MDC hold out users directly involved in the MDC mining node system, these users will become MDC core driver ecology, and MDC team, we have been working for all People bring a full range of data free, autonomous, and secure decentralized network experience.

# 2. Ecological application

# 2.1. C2B big data exchange

On February 20, 2014, the first industrial organization for data transactions in China, the Zhongguancun Big Data Transaction Industry Alliance was established. On the same day, Zhongguancun's number of



big data trading platforms was launched to locate the big data transaction service platform.

On April 15, 2015, Guiyang Big Data Exchange officially listed and completed the first batch of big data transactions. The first data transaction vendors completed by Guiyang Big Data Exchange were Shenzhen Tencent Computer Systems Co., Ltd. and Guangdong Digital Guangdong Research Institute. The buyers were Jingdong Cloud Platform and Zhongjin Data System Co., Ltd.

On May 26, 2015, at the 2015 Guiyang International Big Data Industry Expo and the Guiyang Summit of the Global Big Data Era, Guiyang Big Data Exchange launched the "2015 China Big Data Transaction White Paper" and the "Guiyang Big Data Exchange 702 Convention". It has pointed out the direction for the nature, purpose, transaction target, and information privacy protection of big data exchanges, and laid the industrial foundation for the realization of big data gold mines.

The MDC project will build a new C2B big data exchange based on blockchain technology in the ecology. The C- end users can sell their own data to meet the needs of the B-side merchants through their own authorization, and obtain the income, and also can be used in the corresponding B-side merchants. Enjoy customized services on the platform.



## 2.2. O2O consulting research report

The data of domestic consultation reports are mostly from the statistical data of various ministries and commissions such as the National Bureau of Statistics. The professional researchers analyze and mine the data to find out the quantitative characteristics of each industry and then draw qualitative conclusions, which are common in "market research analysis and development. consultation report ", such as" 2015 to 2020 China's telecommunications equipment industry transfer market research analysis and development Advisory report "," 2015 to 2020 China mobile phone industry sales analysis and development strategy "," 2015 fiber market analysis report ", etc., These consulting reports are for social sales, which is actually the big data transaction model of O2O.

The analysis reports of various industries provide data references for intellectual achievements, business operations and marketing for a large number of enterprises in the industry, which is conducive to the market to optimize the supply chain, avoid overcapacity, and maintain market stability. The MDC (Magic Data Chain) network can provide a lower cost, more realistic source of data for the output of this type of report.

## 2.3. Data mining cloud computing software



The emergence of cloud computing provides an inexpensive solution for SMEs to analyze massive amounts of data. The SaaS model is the most attractive feature of cloud computing. SaaS software in cloud computing services can provide third-party software and plugins for data mining and data cleaning.

This kind of architecture integrates statistical analysis, data mining and business intelligence in the cloud big data analysis software. It can perform data processing, basic statistics, advanced statistics, data mining, data mapping and result output, etc. It is suitable for analyzing data of various industries. Easy to learn and use, the operation interface is simple and intuitive, providing a very economical solution for SMEs.

As a result, ordinary users have extremely convenient development tools, and are also suitable for high-end users to model their own secondary development.

# 2.4. big data consulting and analysis services

MDC team as a professional consulting team of data, the user can be authorized, highly targeted based on a user's massive data provided to each company based on large data modeling management consulting, big data analytics, business model style transformation, marketing Planning, etc., with big data as the basis, the consulting company's conclusions and consulting results are more convincing, which is also the



transformation direction of traditional consulting companies. For example, a vice president of a large foreign IT research and consulting firm has publicly stated that big data can save Guizhou's agriculture by 60% and increase output by 80%. The company's ability to make such an argument is of course based on its accumulated accumulation of data on agriculture, weather, soil, etc. in Guizhou and its modeling and analysis capabilities.

The MDC network can analyze big data and embed it into the ERP system information flow inside the enterprise. The data can guide the internal decision-making, operation, cash flow management, market development, etc., which can play the role of value-added in the internal value chain of the enterprise.

At the same time, through the service, the profits obtained are all used to feed back the MDC users who contributed the data .

# 2.5. Big data investment tools

Securities market behaviors, various types of indices have a lot to do with the analysis, judgment and emotions of investors. These can undoubtedly be quantified as data.

In 2002, the Nobel Prize in Economics was awarded to behavioral economist Kahneman and experimental economist Smith. Behavioral economics began to be accepted by mainstream economics. Behavioral



finance theory integrated psychology, especially behavioral science theory, into finance.

The MDC network can connect user emotions, investment behaviors and stock quotes through directional collection and investigation. It studies user behavior data, focuses on hotspots and market sentiment, dynamically adjusts portfolios, and develops big data investment tools, such as large Data funds, etc. These investment tools directly convert big data into investment wealth management products.

This is undoubtedly an important means for the MDC network to return profits to users .

## 2.6. Targeted procurement line trading platform

Data analysis results are often the business foundation of other industries, but for virtual goods such as data, there is no specific online trading platform.

For example, the clothing manufacturing enterprise needs the median and average data of the height and weight of the customers in a certain province, so the hospital physical examination department and the professional medical examination institution are the suppliers of these data. By acquiring these data, apparel companies will be able to carry out refined production and produce garments that meet market needs at a lower cost.



Screening industries that are highly coincident with insurance user images, achieving multiple conversions of insurance users and product optimization of insurance companies, such models have been successfully verified in the fields of education, mutual money lending, and online travel. MDC network by constructing "big data oriented procurement platform", you like Taobao like, you can initiate buyer demand, the seller can also launch the product by such a model, "Data analysis concluded" this product will quietly born, this Commodities do not occupy logistics resources, do not pollute the environment, and respond quickly, but there are huge markets for both "supply" and "need".

Moreover, the basic data security can be guaranteed through the MDC network. The big data oriented procurement service platform does not trade the underlying basic data, but cleans the modeled data results. All sellers and buyers need real-name certification, establish a credit file system and open up with the national credit system, or through the MDC network smart contract for transaction protection.

#### 2.7. MDC platform advertising revenue

We believe that all users are currently on the Internet spam endless harassment was fed up, we fight to open a video, waiting for our first and foremost up to 1-2 minutes of advertising. Internet



companies have earned huge profits by inserting advertisements, and as a carrier of spam advertisements, users have not received any revenue. This is undoubtedly unreasonable. Attention and interest are one of the most important assets we have ever born, and the rate of regeneration is extremely slow in a short period of time.

At the same time, Internet companies like users dumping ads with no value like dumping garbage, this behavior is also perfunctory of advertising resources.

The MDC network can undoubtedly completely change these two prominent contradictions.

The MDC network will filter and distribute the B-side merchant advertisements that best meet the user's requirements based on the user's legally authorized orientation data.

Merchants who advertise on the MDC network must be strictly certified and collateralized by smart contract collateral MDC certification .

In the end, the user can get all the advertising revenue of the MDC network and the MDC certificate revenue that may be obtained when the advertisement is completed .

The MDC network will continue to optimize the form of interactive advertising to enhance the user experience and advertising revenue in both directions.



## 3. 6 mechanism support of MDC ecology

For the problem of "doing evil" in the data, there is no lack of cognition and lack of consensus. The landing of the MDC project is a process of "crossing the river by feeling the stones". It has also formed many good experiences through the detours. The most important thing at the moment is to build consensus and "institutionalize" good experiences, and finally achieve our grand vision.

So, how can the MDC network achieve the above grand vision?

In the view of the MDC team, through the exquisite design of the six systems in the MDC ecosystem, they can serve as the six strong support for ecological development, effectively promote the achievement of each goal, and accelerate the maturity of the MDC ecosystem as soon as possible.

# 3.1. Data acquisition based, supplemented by mining system behavior

The MDC network data mining system is mainly based on software collection (the balance is 83.2%), supplemented by hardware acquisition and behavior .



Data software collection is relatively simple, but different requirements have frequent changes to the data structure. Hardware collection and behavior collection is cumbersome, but the single value is huge, and users can initiate behaviors spontaneously, interact with the merchant's demand side, and maximize the value of the data.

#### 3.2. Buying mainly through license supply system

MDC pass adopts the system of snapping and mining separation. There is a limit to snapping up, transferable, and transfer is also a necessary way to establish a node system.

The transfer method includes two categories of secondary selling and establishing nodes, which are mainly for user investment demand and node mining demand.

# 3.3. Heavy speculative appreciation of light through economic model certificate

The MDC Pass will have a bottom-up acquisition mechanism during the snap-up period, and there will be an ongoing application for ecological transfusion.

Therefore, holding the MDC for a short time and quickly speculating is undoubtedly a short-sighted move. MDC's model design and ecological architecture guarantee its appreciation potential.



# 3.4. The hardware and software combination of technology landing path

MDC hardware and software combined mining methods, flexible and advanced. At the same time, the MDC team has more than 10 years of experience in big data software and hardware supply chain .

This design can give full play to the team's strengths and maximize the stability of the project.

#### 3.5 Low threshold entry, flexible threshold exit certificate system

The threshold for MDC to participate in mining is only 1 000MDC, and the initial price is RMB 700 .

The threshold for MDC participation in the node system is only 100 MDC, and the initial price is RMB 70 .

Meanwhile, an official with the super node in the secondary market buy-back system, barriers to entry protect the user in the bottom at the same time, with a high exit flexibility.

#### 3.6. Flexible community system with infinite fission

The potential of the MDC community system is endless. Up to ten levels of matrix node system can make users who have built their minds ecologically enjoy high community status and dynamic benefits, which is



very suitable for users with social resources and social expertise.





## VII. MDC team and background introduction

#### 1. Core members of the team

#### **Brodie Fu**

- Ph.D., University of New South Wales, after returning to China for business. Has been involved in the industry including microbusiness, e-commerce, micro-direct marketing, education and training, Internet marketing;
- Tutor of Zhongguancun Innovation Center and Vanke Incubator
   Tutor;
- BTC, ETH early investors;
- Participated in the establishment of the earliest "transactionmining" mode exchange in 2016;
- Experienced in blockchain investment, exchange solution design, and community opinion guidance.

### **Danny Zhu**

- former Google company Al department project leader;
- Early developers of the ETH public chain;
- Senior expert in Internet finance industry alliance chain technology;



- Leading the development of more than 20 DApps in EOS and Tron public chains;
- Leading the development of more than a dozen centralized and decentralized wallets.

#### John Giannandrea

- Former senior trader in the investment department of Citibank;
- One of the founders of the market value management team Altonomy;
- Former head of the market value management team of the Gate.io exchange;
- speak disk total water over 5 billion dollars;
- Experienced in market value management, exchange operation, and blockchain project design .

## **Simon Loasby**

- He used to be the head of vehicle architecture design of Hyundai
   Seoul Group, and later joined the Internet industry. In 2017, he moved to the blockchain field;
- Honorary Professor of Seoul National University;
- Has extensive experience in blockchain, big data, and artificial intelligence.



## 2. Investment institutions



### **New Enterprise Associates:**

- En Yi Investment (NEA) is one of the world leaders in the venture capital industry companies.
- Since its inception in 1978, NEA currently manages more than \$6
   billion in capital, and its rich team has invested in more than 500
   companies.
- NEA's main areas of focus include technology, consumer and medical.
- 2018, NEA began to invest in the blockchain industry.





## **Alcazar Capital Limited:**

- Alcazar Capital Limited (ACL) is headquartered in Dubai.
- ACL committed to supporting ambitious entrepreneurs in the early stages of the growth process.
- 2018, ACL, in conjunction with a number of agencies, launched a \$100 million global financial technology fund.



### **Revolution Ventures:**

- Revolution Ventures is a non-traditional investment company based in California, USA, dedicated to providing business leadership across multiple industries.
- Its portfolio investment company is led by outstanding professionals and plays a pivotal role in the emerging high growth industry.
- in 2014, Revolution Ventures involved in the block chain industry.





#### **Focus Ventures:**

- Focus Ventures is located in California and prefers to find industryleading technology companies to collaborate.
- Focus Ventures focuses on the technology industry leaders in the expansion period, and win-win cooperation with venture capital companies focusing on early investment, because the two businesses complement each other.
- Involved in the blockchain industry investment in 2017.



## **Bay City Capital LLC:**

• Bay City Capital LLC is located in Oakland, USA.



- Bay City Capital LLC invests in companies whose own operations, finance and science and technology can benefit company management.
- Bay City Capital LLC is committed to building long-term growth and value for the company. They work closely with venture capital firms to become true partners.



## **III. MDC ROAD Map**

2019 Q1 project start

2019 Q2 project launch

White Paper v1.0 released

2019 Q3 Official online line

MDC global community and nodes are launched

Official APP online

MDC login trading platform

2019 Q4 Based on MDC public chain, first payment scenario online

White paper v2.0 released

MDC public chain test network released

MDC holds 1 million users

MDC Pass is connected to USD and RMB

The Magic Data Global Leaders Consensus Conference is fully

launched

Magic Data MDC Developer Alliance established



#### Magic Data MDC global access to 30 countries and regions

2020 Q1 Established the Developer Award Fund

MDC block browser online

Expand 3-5 new data requirements areas throughout

the year

2020 Q2 MDC main online line

MDC main chain has 20 DApps

2020 Q3 Launched the first MDC "hackathon", opening a third-party developer platform

MDC hold out users reached 200 million, payment scene reached 10

MDC linked to more than 5 fiats

2021 Hatch and launch dozens of social digital economic application scenarios

MDC hold out users reached 500 million and more than 50 businesses

MDC main chain DApp reached 50

MDC linked to more than 10 fiats



