Ether show

ESS WHITE PAPER>>

The mark is the value, the pay is the return,
my right belongs to me only

Abstract:

One of the goals of blockchain technology is to establish an indelible "link" between the original and ownership information by creating a digital signature or encrypted "hash" on digital documents and owner identity information. ESS is a technology system that can achieve consistent data storage, and the data stored through this system cannot be tampered with or denied.

Given the large number of unregistered works, especially those small, short and amateur, cheap blockchain registration becomes a good choice for authors. Authors can create a "timestamp" for their works and provide a permanent and stable property for these works until the works are profitable. From this point, the blockchain can openly record the information of some of the works, which may never be recorded originally.

Based on this situation, blockchain technology provides an unchangeable decentration network transaction registration form, thus providing a new idea for the intellectual property right protection in the development of today's cultural industry.

以太秀秀
Ether show

Contents

1. Origin of ESS

1.1 Background 4

1.2 What's ESS? 5

2. Design Idea of ESS

2.1 Decentration 6

2.2 Reliability 6

2.3 Usability 7

3. ESS Project Features

3.1 Timestamp record protection 8

3.2 Blockchain technology protection 8

3.3 Judicial appraisal protection 8

4.Business Analytics

4.1 Typical scene application 10

4.1.1 Right confirmation 10

4.1.2 Transaction 10

4.1.3 Reward 10

4.1.4 Crowd funding 10

4.1.5 Crowdsourcing 11

4.2 Commercial application cases 12
4.2.1 Prior copyright statement 12
4.2.2 One to one communication and rights protection 13
4.2.3 The original can still be traced after being edited for many times 13
4.2.4 Complaint and rights protection through the platform 14
4.2.5 Rights protection through legal means 14
4.3 Application in other aspects
4.3.1 Application in modeling creativity 15
4.3.2 Application in original videos and specially processed voice 15
4.4 Business prospects 16
4.4.1 ESS+ facial beautification 17
4.4.2 ESS+ live broadcast 19
4.5 Business model innovation 21

5. Technical Idea and Technical Architecture
5.1 Technical idea 22
5.2 Technical architecture 22
5.2.1 Governance mode 24
5.2.2 Design objectives 25
5.2.2.1 The consensus algorithm of "NPC" 23
5.2.2.2 Election block producer 26
5.2.3 Intelligent contract 26
5.2.4 Zero knowledge proof 27
5.2.5 Raiden network 27
5.2.6 Casper 28
5.2.7 Mobile wallet 29

6. ESS Token
6.1 Token function 29
6.1.1 Maintenance of the operation of ESS blockchain 30
6.1.2 Transaction of commercial applications 30
6.2 Issuance of token 30
6.3 Allocation plan 30
6.4 Deblocking plan of the token held 31

7. Future Development and Opportunities of ESS
7.1 The status quo of China's blockchain technology operation 31
7.2 Blockchain capacity scale forecast between 2016 and 2020 31

8. Introduction to Founding Team 34
8.1 Founder 34
8.2 Technical team 35
8.3 Financial advisory team 35
8.4 Legal advisory team 36

8.5 Strategic partner 36
9. The initiator introduces 37
9.1 the initiator authorizes 37
9.2 sponsor background introduction 38
Disclaimer **42**

Disclaimer

1. Origin of ESS

1.1 Background:

It is well known that we are in the golden age of knowledge realization. The thing that the original authors want to see most is their own works are hot; while the last thing they want to see is their own works are hot but the authors are not them. Photo piracy and plagiarism become so common in the era in which not everyone is able to turn the wall, but certainly to turn the firewall. So, for original authors, the biggest problems of current property right protection are mainly as follows:

1. It is difficult to protect. Although most creators know the threat of piracy and plagiarism, the traditional registration method of copyright is time-consuming and costs much. Therefore, most network creators choose not to register and protect their works, leading to phenomenon of frequent infringement and putting the copyright at risk;

2. It is difficult to prove. The most gratifying thing is that the plagiarists are often "righteous". They either ignore the complaint or refuse to admit the plagiarism. Those who are more shameless even ask you to give the evidence, and the evidence recognized by law is often the key to rights protection;

3. It is difficult to protect the rights. Most original authors choose to remain silent, allowing their rights to be violated because of complicated platform complaint procedures and high legal litigation costs.

So, given the annoying problems brought by the Internet, the more convenient, safer and less expensive copyright protection modes are badly needed by original authors. Exactly, blockchain copyright can do it.

1.2 What's ESS?

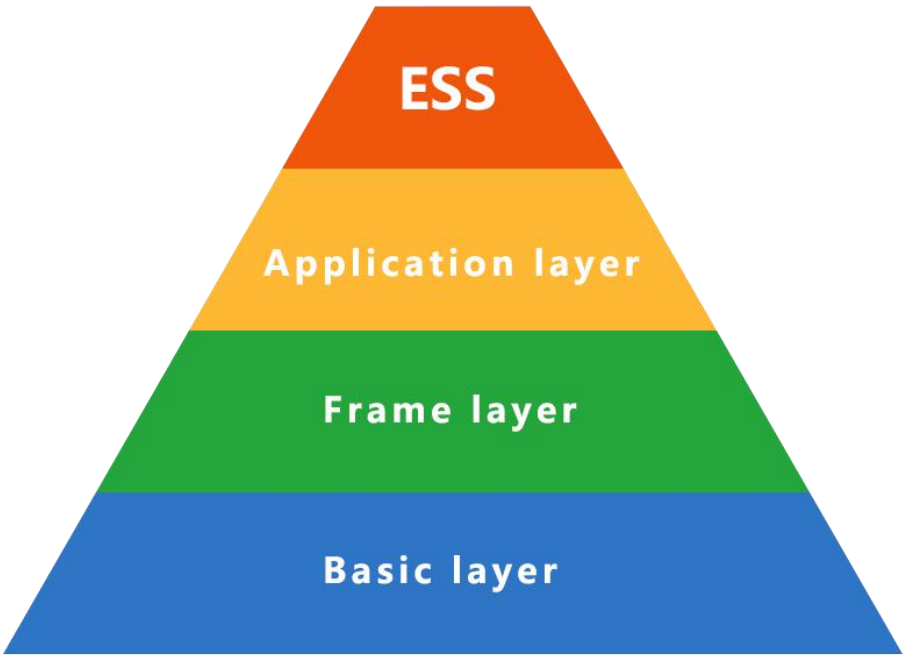
ESS, Chinese name "以太秀秀", is a global and open blockchain ecosystem based on blockchain technology. The platform makes the source codes public so that developers can create and publish new projects to enhance the application of blockchain technology in more industries. The projects run independently and cooperate with each other at the same time, forming a strong centripetal force.

ESS is an internationally leading blockchain project based on the Ethereum Wisdom Contract, which is an intelligent source tracing platform. ESS consists of three layers: the base layer, the framework layer and the application layer.

1) Set up the base layer technology of ESS chain,

2) Build a high expandability support system on it,

3) Create online applications on smart mobile terminal. To describe it easily, ESS blockchain copyright registration is to embed a hex key into the originals using the decentralization function of blockchain. The key will be stored in all the computers in the blockchain. That is equivalent to registering an "electronic identity card" for the originals which is permanently effective and cannot be tampered with.



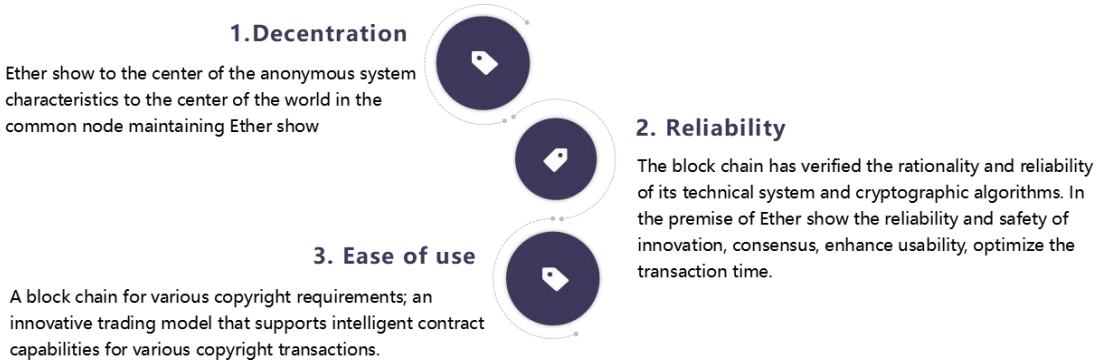
2. Design Idea of ESS

2.1 Decentration

ESS is a decentralized, anonymous and game-based system and the application produced is an application based on open scenarios. Further, the first kind of open scenarios is at the data level and the second kind of open scenarios is at the consensus level, which shows the full-network data storage & processing capability based on the consensus mechanism.

Based on Ethereum, ESS records the ownership confirmation and transaction information on a public blockchain. Users can conduct the right confirmation and authorize the transaction with the secret key.

The features of decentration enable the participating nodes all over the world to jointly maintain ESS. The nodes all over the world work in coordination through using the consensus mechanism and will be completely unaffected by unilateral tampering and diversion. No damage or loss of data will be caused due to natural disasters, network attacks or human factors.



2.2 Reliability

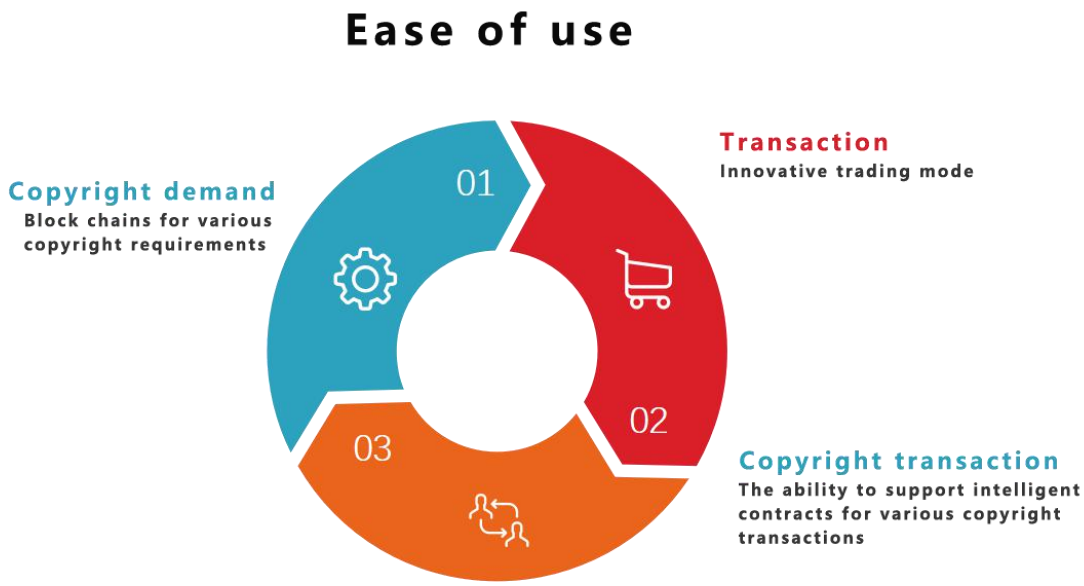
Blockchain has validated the rationality and reliability of its technology system and cryptographic algorithm through long-time, high-value and large-scale applications and tests of a series of encrypted digital assets such as Bitcoin and Ethereum.

In the premise of reliability and safety, ESS design uses a sophisticated encryption algorithm and the common network protocol and innovates the consensus mechanism, improve its usability and optimize the transaction time.

2.3 Usability

As a basic service platform for property right protection, ESS provides simple and convenient interfaces and services to various applications and ESS clients.

Its usability is reflected in: a blockchain for various copyright needs; an innovative trading model and intelligent contract ability that can support a variety of copyright transactions;



3. ESS Project Features

3.1 Timestamp record protection

According to the principle of "the persons who create first and apply first owns the copyright", the system affixes a timestamp to the originals via blockchain technology and proves the creation and releasing time of the original works using UTC global satellite time while ensuring the authority and reliability of the time.

What needs to be emphasized here is that the blockchain copyright statement written in the form of timestamp has the same legal effect as the traditional copyright certificate.

3.2 Blockchain technology protection

Based on the technical characteristics of blockchain, the "applicant + releasing time + releasing content" of copyright registration are encrypted and uploaded together. The copyright information has a unique blockchain ID. The decentration teconology

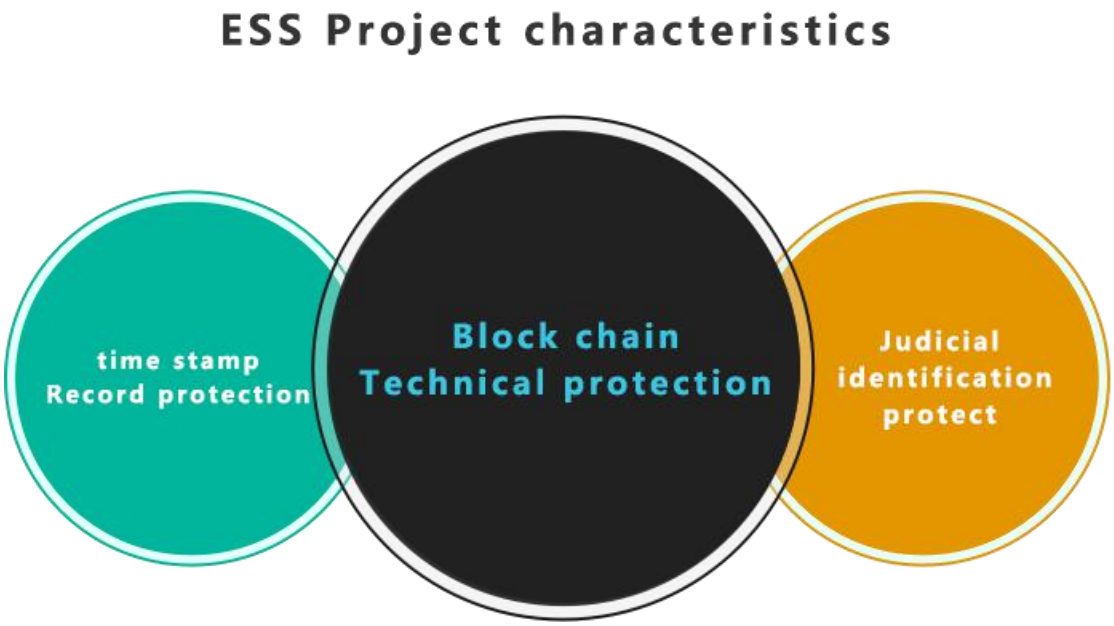
characteristic of blockchain ensures that the data will be permanently stored and cannot be tampered with.

It also perfectly solves the copyright adducing evidence problem of "who created what contents in what time", so it is widely recognized around the world.

3.3 Judicial appraisal protection

In order to strengthen the authority of copyright information, we reached cooperation with the Judicial Appraisal Center that each blockchain copyright registration information can be sent to the Judicial Appraisal Center synchronously, and in the case of infringement litigation, it can directly retrieve the files to identify, thus solving the problem of rights protection and evidence collection.

So how can blockchain ensure more convenient, safer and cheaper copyright protection? What is its practical use? Let's explain it with several concrete scenarios.



4. Business Analytics

4.1 Typical application scenarios

ESS can achieve collection, right confirmation, encryption, deposit, anti-piracy, exchange, distribution, evaluation, ranking, release, trading, reward, crowd funding and crowdsourcing of various intellectual property rights.

Typical application scenarios are as follows:

4.1.1 Right confirmation:

Confirmation of intellectual property rights refers to the confirmation of the ownership and using right of an asset through the registration procedures such as asset declaration, ownership investigation, review and approval and registration according to the provisions of laws and policies.

4.1.2 Transaction:

The transaction of intellectual property rights refers to the consumption; ownership transfer and leasing of various intellectual property rights and other behaviors in ESS blockchain.

4.1.3 Reward:

Reward refers to the emerging optional personal consumption pattern on the Internet, such as the users' reward for the creators, and real restaurants, bars, KTVs, scenic spots, etc.

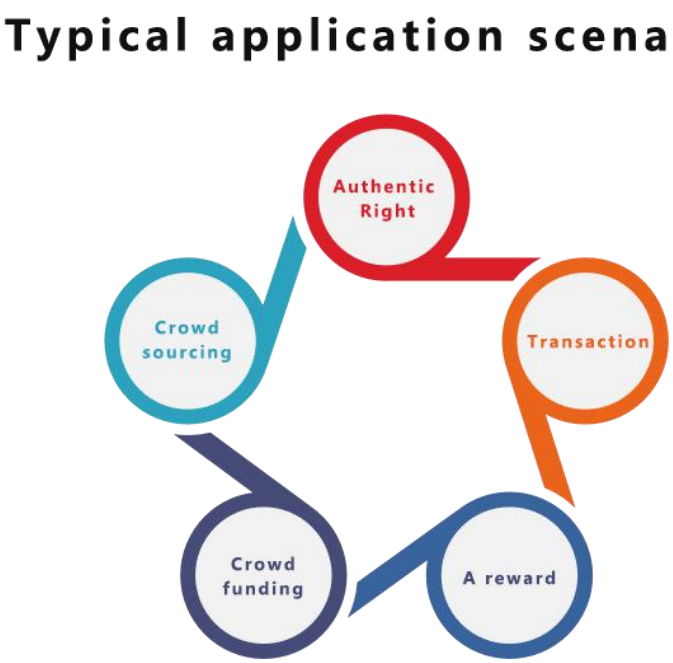
4.1.4 Crowd funding:

It is composed of the sponsor, investor and platform. It refers to the behavior supported and sponsored by individuals or organizations through raising money from the masses with characteristics of low threshold, diversity, relying on public power

and paying attention to creativity.

4.1.5 Crowdsourcing:

Crowdsourcing refers to the practice that a company or an organization outsources the work tasks performed by its employees to the non-specific (and usually the large-scale) mass networks in a free and voluntary form.



4.2 Commercial application cases

4.2.1 Prior copyright statement

The new ESS blockchain authentication mechanism can not only accurately record the original ownership of a picture, an image, an audio and a video, but also record the subsequent copying, reprinting, modification, transmission and signature related to the works.

After the blockchain copyright of the works is registered, the attribution of the works is determined, and the copyright statement for the original works is equivalent to a "digital identity card" registered for the original works. Protect the copyright of the original works from the source to meet the needs of subsequent rights protection and copyright realization.

Assume that Mr. X creates a cartoon image called Ah Dai with unique dubbing, and he has electronic filing; if he adds watermarking, it will affect the aesthetics and can be easily erased; while if he goes to the copyright office for copyright registration, he will feel tired and the cost is expensive, so how to make it more convenient and quick for making the original label for the image of Ah Dai and preventing the image from being maliciously misappropriated? The best option is to use the blockchain to register the copyright. It is only necessary to register and login, submit the information about the author's works, and upload images of Ah Dai of an electronic version, and after waiting for a short time, the blockchain copyright certificate can be obtained, simple, quick and effective.

Prior copyright notice

After the copyright of the block chain is registered, the works are determined to protect the original copyright from the source to meet the needs of the subsequent rights and the rights of the copyright.

One-on-one communication rights

When the infringement is discovered, the original person or the agent and the infringing party shall conduct one-to-one communication with the infringement party.

Platform appeals

The use of the copyright of the block chain as the evidence of the appeal can greatly improve the success rate of the appeal and meet the needs of the scene.

Original rights to change.

To provide an effective protection tool for the original, let the original people quickly register, cheap rights.

4.2.2 One to one communication and rights protection

Once there is any infringement, when carrying out one-on-one communication with the infringer, the original author or agent safeguarding legal rights can show the blockchain copyright certificate to prove the ownership of the works to ensure reasonability and safeguarding legal rights according to law.

If Mr. X in the above-mentioned example is plagiarized by an unscrupulous businessman who also gains access to the market for pirated products through WeChat and network, he sends a private letter to the opposite side but there is no reply. When faced with this situation, Mr. X can calmly and directly contact the platform for an appeal to protect the copyright of his work from being plagiarized.

In case the image of Ah Dai becomes popular, it will be plagiarized by unscrupulous businessmen, and a lot of money will be made when being printed on the product. However, Mr. X is continuously improving and looking forward the perfect presence of Ah Dai on the stage of derivatives for the first time, however, to his surprise, his original works are beyond recognition after being printed when he browses the website casually with quite excellent sales! While his expectation is destroyed by the chaotic market on the elaborately-designed product, which has not gained an opportunity for showing on the market. When facing unscrupulous businessmen who have infringement acts, we won't be at a loss as to what to do as usual, instead, we can only discard the electronic blockchain copyright certificate saved before and describe the infringement claims to reasonably and legally safeguard their rights and interests.

4.2.3 Adaption rights of original works

The original can still be traced after being edited for many times. In the past, after some pictures are edited again or for many times, even the original authors do not think that it is their initial wisdom and original works that bring creative inspiration and perfection to the subsequent adapters. For example, a picture, an audio,

and a short video, etc. These large number of unregistered works (especially those small, short and amateur works), for many original authors, infringement is too simple under the network environment and the cost for safeguarding rights is too high, therefore, only one proved item can make lots of authors deterred. ESS can solve this biggest problem of demand and provide effective protection tools for the original authors to allow them quickly register and safeguard their rights with cheap costs.

4.2.4 Complaint and rights protection through the platform

Currently, since some large platforms recognize the timestamp copyright products, using blockchain copyright as the appeal evidence can greatly improve the success rate of the appeal and meet the demand of scenario protection. The cheap blockchain registration can be a good alternative for these original authors; therefore, these authors can create a "timestamp" to provide a permanent and stable property for these works until the works are profitable.

4.2.5 Rights protection through legal means

At present, unscrupulous businessmen have taken risks to perform infringement acts for benefits though they are fully aware; with ESS, the original authors only register and login directly, fill in the information and upload works to submit and complete the registration. Even taking the infringer to court, the original creator will be better confident, since the blockchain copyright also can be taken as the valid evidence when claiming against infringement, which has the same legal effect as the traditional copyright certificate.

4.3 Application in other aspects

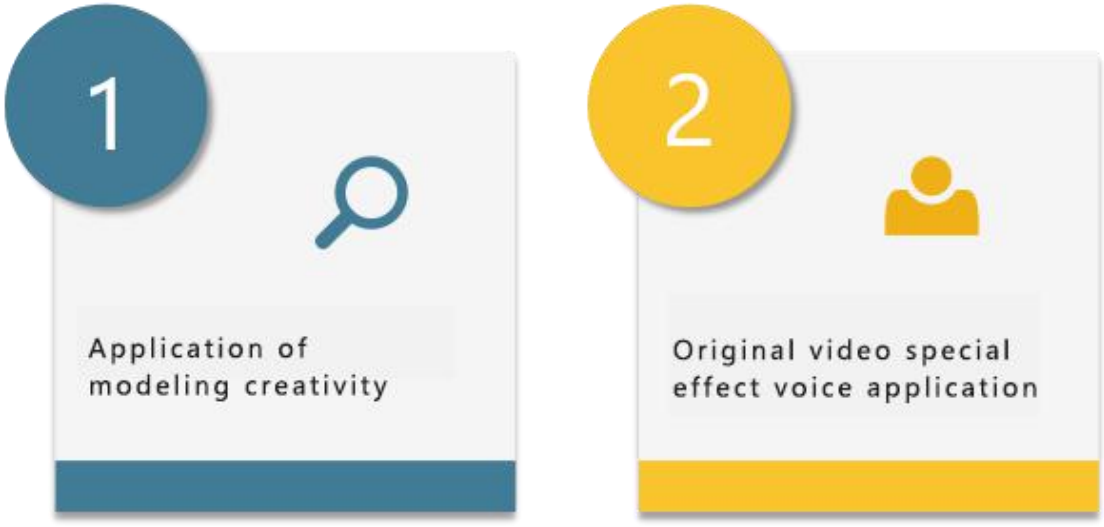
4.3.1 Application in modeling creativity

On the basis of various changeable modeling with creativity, people have the chance to take numerous modeling photos. In addition, the creators have made great efforts in creativity for these various modeling. For example, all kinds of cute photos in the BeautyCam show people their various cute styles, bringing happiness in a lively and humorous way. The new blockchain authentication mechanism can not only accurately record the original ownership of a picture and an image, but also record the subsequent copying, reprinting, modification, transmission and signature related to the works.

4.3.2 Application in original videos and specially processed voice

As technology advances, representation forms of original videos and voices

become increasingly rich. Various sounds imitating the nature and animals, combination of various wonderful sounds and original and distinctive sounds have become popular and have a certain spreading value. The blockchain technology of ESS can not only achieve the confirmation of voices through the underlying QR code, but also track the frequency of voice transmission so as to protect the rights and interests of creators.



4.4 Business prospects

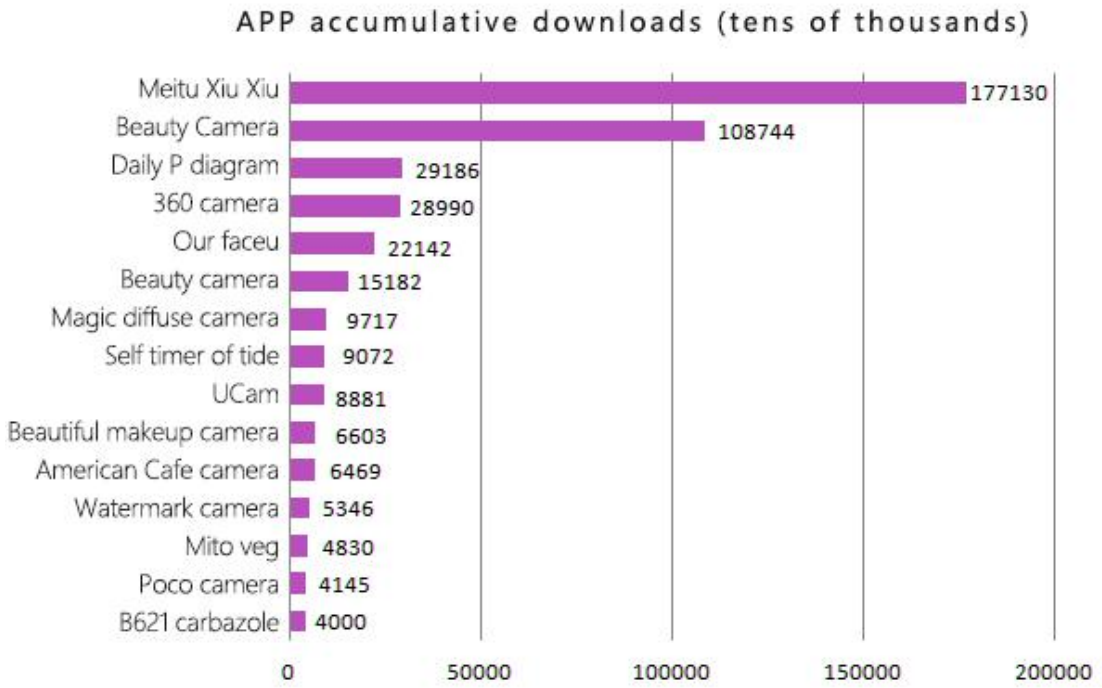
In the context of rapid shared, open and transparent network resources, the confidentiality of personal communications has attached great importance. If point-point documents with the tamper-resistant blockchain are released, and once the document is opened, it will be recorded, thus ensuring the safety of private documents.

Ronnie Moas, the founder of the research company of Standpoint Research, insists that cryptocurrency will not only continue a decade-long trend, but also will be a viable asset class. He has even predicted that there will be a substantial increase in the market value of the entire cryptocurrency market. He has predicted that the total value of all encrypted assets will soar from USD 150 billion currently to USD 2 trillion in the next decade.

4.4.1 ESS+ facial beautification

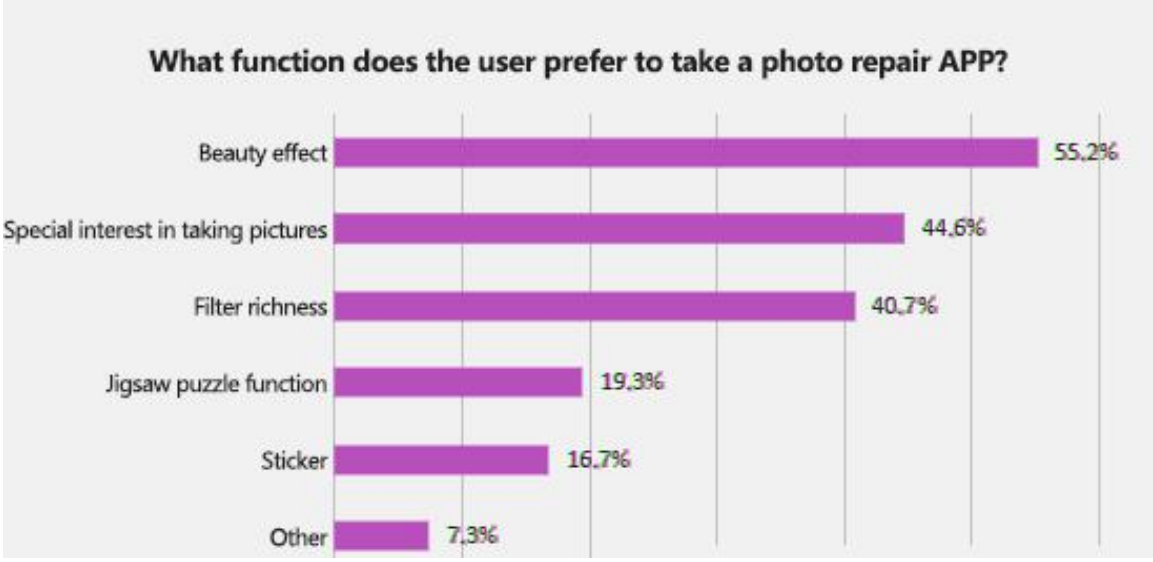
Thanks to traceability, right confirmation, encryption and other applications of blockchain technology, ESS will also be a major player in revolutionary changes to the network beauty market, and its market prospect will be very broad.

Taking the beauty market , there is a report showing that the number of global users of the current beauty selfie line has reached 724 million, generating 210 million photos every day.



Photographing and retouching APPs can meet users' needs to "shoot blockbusters" by mobile phones with its powerful beauty and makeup function and the rich and unique filter function. In addition, photographing and retouching APP just captures the users' love of beauty, and allows them to share and upload the photos to social platforms in real time through the construction with the social platform, so as to realize users' desires to show a better self, making the mobile APP popular among users.

When beauty and retouching become a fashion, the functions of photographing and retouching APPs will become increasingly rich. In terms of the BeautyCam, its beauty effect is the most important factor valued by users. 55.2% of users think the beauty effect of the photographing APP is the most important; in addition, self-insulting and funny photo taking has become a new fashion, the rich special effects in BeautyCam allow users to experience the fun brought by different funny makeups. The data show that 44.6% of users value the fun of the special effects of photographing APP. 40.7% of users matter the richness of filters most



The above-mentioned numerous beauty APPs will meet the needs of numerous customers. ESS will take full advantage of the features of blockchain technology and protect users' creativity and promote active innovation through tracing, right confirmation, encryption and other functions.

In the future, the micro-innovation and micro-creativity of numerous users in beauty, interesting special effects, filters, stickers and so on will be fully and safely protected by approaching ESS blockchain, which will continue to promote a burst of innovation of all the people.

4.4.2 ESS+ live broadcast

Through the applications such as reward, exchange and transaction realized by the blockchain technology, ESS will integrate the current hot live broadcasting industry and fully upgrade and transform the live broadcasting market with the blockchain technology.

Goldman Sachs predicts that the scale of China's video live broadcasting market will reach USD 15 billion by 2020, over 7 times the size of the market 2 years ago. China has pulled ahead in the video live broadcasting field in the world for two years and doubled the size of its live broadcast market. Such amazing growth rate is unexpected.

Data of iiMedia Research shows that with the standardization of industry policies, the threshold of online live broadcasting market has risen. Though the industry growth rate has fallen, the user scale is expected to reach 392 million in 2017, reach

452 million people in 2018, and reach 495 million people in 2019.

The traditional show live broadcasting mainly takes on reward with virtual props and peripheral advertising as its main profit model; with the continuous expansion of online live broadcasting users, the flow economy around live broadcasting grows rapidly, large live broadcasting flow is continuously imported into the back-end game interoperability, online e-commerce and so on, greatly expanding the profit model depending on duration of live broadcast online.

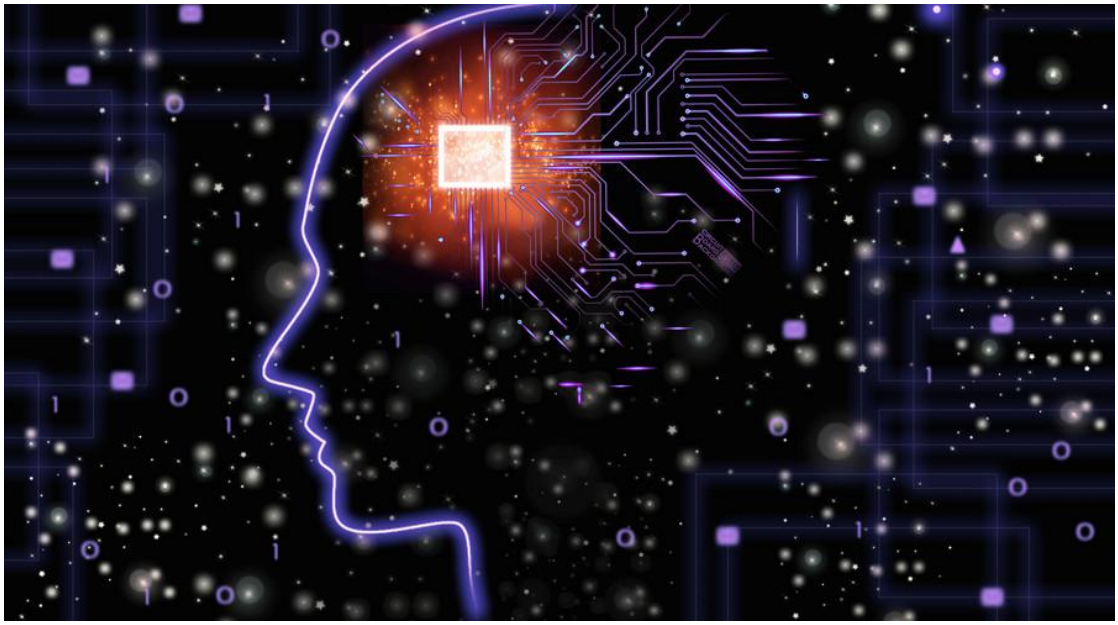
Whatever it is rewarding, advertising paying, game recharging or online transactions, those are in line with the exchange, trading, rewarding and other typical scenarios of ESS, and ESS will utilize the characteristics of decentration, traceability and openness to reconstruct the live broadcast industry with blockchain.

4

ESS combines network resources with blockchain technology, making various

network resources related to intellectual property rights can be linked. Creatively realize the establishment of network resources emerging business ecology with decentration as the main feature. Therefore, the present situation of easy internet infringement and hard rights protection can be changed, so does the effective distribution of resource value.

Extend the boundary of rights for network resource through blockchain technology and eliminate the intervention of large platform for personal rights, thus realizing right independence. ESS helps to realize right traceability, right confirmation, transaction, authority, encourages more innovation and creativity and promotesconsumption upgrade, thus creating a better life.



5 .Technical Idea and Technical Architecture

5.1 Technical idea

The purpose of Ethereum contract is to improve efficiency. However, with the daily increase of users and increasing expansion of function, main chain of Ethereum becomes crowded; what's more, the advent of "CryptoKitties" brings transfer transaction of the whole blockchain to a halt.

Network transaction volume in real economic activity is in dozens, hundreds, thousands, even hundreds of thousands. The bottleneck of the present public blockchain system is seriously inadequate matter processing capacity, which is a big obstacle for blockchain technology to become commercial!

ESS is the world's first really practical public blockchain system architecture design scheme with excellent extension performance. With the help of groundbreaking "NPC" consensus algorithm, framework layer ,SPA, idea of separation of transaction and storage, it breaks blockchain transaction bottleneck with no more than 10 transactions per second, and is expected to comprehensively speed up the commercial process of global blockchain system.

ESS will be the public blockchain with revolutionary breakthrough in performance, which can both keep blockchain's key factors of decentration and safety and provide enterprise application with normal running speed necessary, expandability, usability, transaction volume with more than one million. Therefore, it is qualified to real use requirements of many industries, including property right protection, supply chain, e-commerce, medical insurance, insurance, etc.

ESS is composed of basic chain, supporting chain and storage system horizontally, which are integrated and cooperated with each other to build a safe and reliable high-performance blockchain architecture with coordinated function and decentration.

ESS is composed of base layer, framework layer and application layer vertically.

Base layer uses "NPC" consensus algorithm as core, and introduces "SPA" into supporting chain, which gives a more clear division of labor between main chain and supporting chain and the chance for main chain to serve the function of currency, therefore, effective transfer transaction is realized. Supporting chain, on the other hand, can mainly support extendable properties and serve more intelligent contract applications.

Framework layer sorts out common model of huge amounts of transactions with common trust framework, value framework, evidence framework and organizational framework. Thus simplifying bookkeeping of each transaction sharply, reducing consumption in every dimension and increasing efficiency revolutionarily

Application layer focuses on application of various intelligent contracts, whose

excellent expandability and usability are qualified for the requirements of property right protection, supply chain, e-commerce, and medical insurance, etc.

In order to realize a totally effective and safe solution, ESS also brings up three key technical application schemes: GangMu, SPA, MapReduce. They are cooperated with basic chain, supporting chain and storage chain respectively.

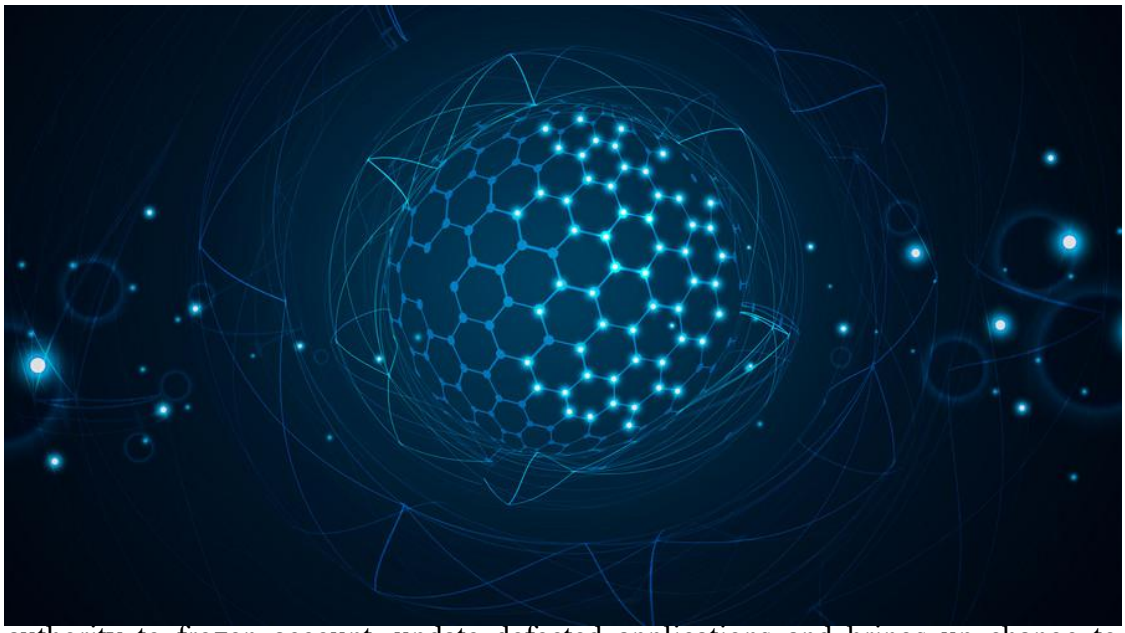
5.2 Technical architecture

5.2.1 Governance mode:

The design of public blockchain requires to weigh the following aspects, including safety and reliability of contracts, cost, expandability, etc. It is a present public blockchain with revolutionary breakthrough in performance, which has decentration and safety qualities.

Last year, bifurcation of Bitcoin cash causes difference of public blockchain protocol layer. Although after bifurcation, each can develop with its own token coin, if bifurcation happens frequently, how to realize reasonable governance and strike a balance when handling development demand and problems?

Future ESS realizes common governance through the separation of main memory database and storage system, setting "GangMu" in main chain and supporting chain "SPA", thus solving the problem of expandability and reliability.



authority to frozen account, update defected applications and brings up change to

underlying protocol. Block producer must represent the broad interest of all accounts in ESS system, if he abuses his right or refuses to vote on the expected change of the system, and then the system will replace him through election.

5.2.2 Design objectives

5.2.2.1 The consensus algorithm of "NPC"

With the development of blockchain technology, consensus algorithm also keeps updating from determining bookkeeping (PoW) through initial competitive Hash algorithm to assets assignment bookkeeping probability (PoS), and then to PoS bookkeeping with a small group of nodes, and then to account importance rating assignment bookkeeping probability (PoI). The balance between fairness and efficiency is always hard to strike.

ESS in the future will creatively combine the advantages of DPoS and PoI to

both keep the fairness of equipment and block consensus on the basis of account participation, which is called NPC algorithm by us. In the future, ESS will be upgraded constantly through GangMu, SPA and framework layer on the basis of NPC algorithm.

5.2.2.2 Election block producer

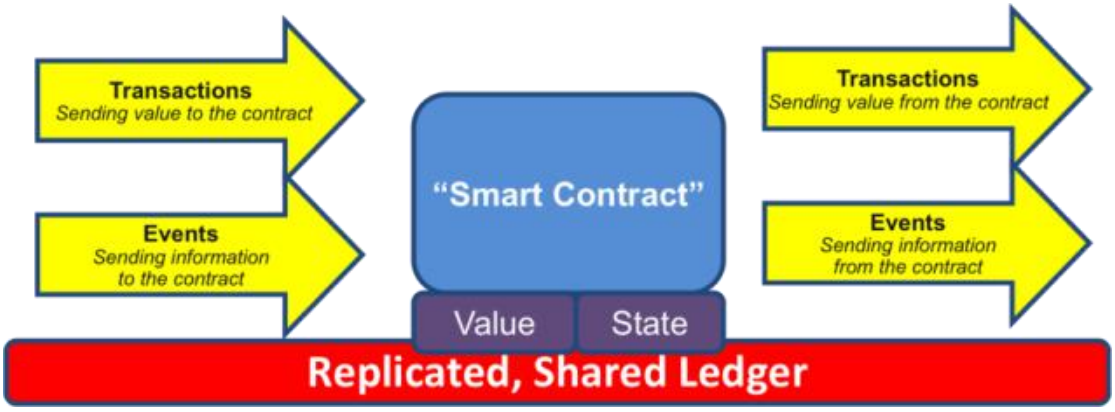
Similar to China's system of people's congress, the system will firstly choose

account with broad representation as candidate account in the new consensus mechanism. The choice is based on various factors, for example: business type of the account, geographical distribution and contribution degree of equipment corresponding to the account. Each candidate account with broad representation is endowed with same voting right, and they are all outstanding ones in ESS chain.

Afterwards the whole blockchain block will vote on the candidate account produced by system, and then according to the number of votes to select N accounts as block producer, of which N is determined by the whole blockchain block. The more votes the candidate account gains, the greater chance for it to become block producer.

5.2.3 Intelligent contract

Intelligent contract procedure is not merely a automatically executed computer procedure, it is a system participant itself. It can receive and store value, and also send messages and value outside.



On one hand, intelligent contract of ESS introduces equipment issues, which means the equipment can trigger the execution of contract or change its situation; On

the other hand, the equipment can also write callback function in contract. When the contract enters into a certain status, the equipment will be notified before conducting relevant operation.

Intelligent contract of ESS is the channel for the flowing of on-chain and off-chain value, which is used between equipment and public chain, or for interaction among equipment.

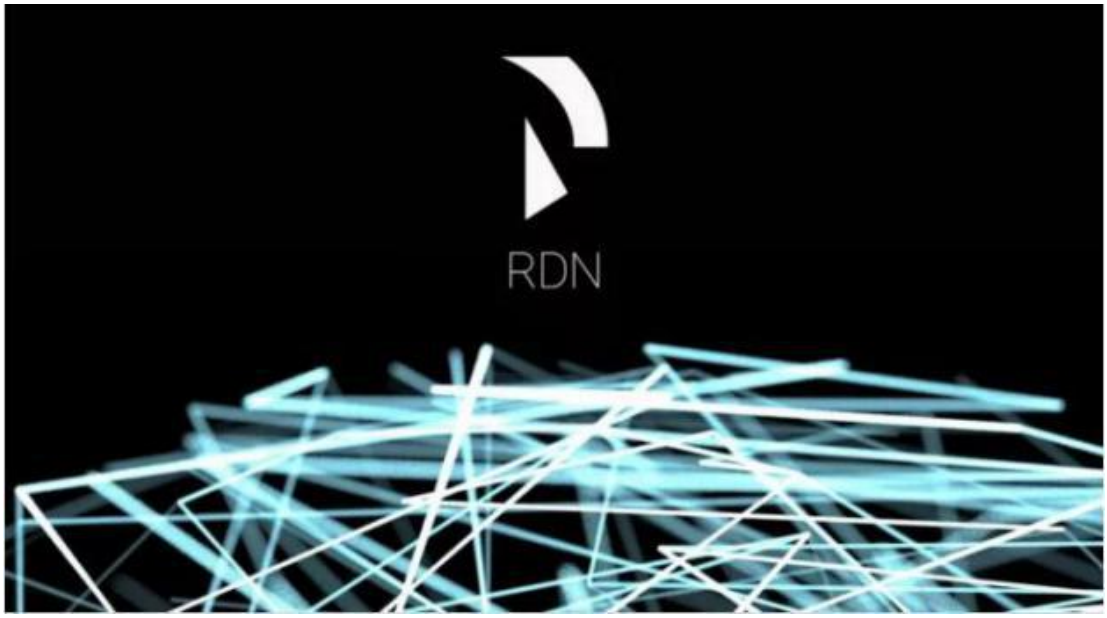
5.2.4 Zero knowledge proof

ESS will support "zk-SNARK" and zero knowledge proof function, and users can conduct transaction with higher anonymity. Procedure design and intelligent contract will become simpler, and Gas will be adjusted to bill settlement. Provide identity cover for security lover and users are allowed to determine private key address by themselves.

This function will improve network security; even resist attacks by quantum computers. So that a more reliable extendable framework can be provided for ESS.

5.2.5 Raiden network

Raiden network is designed for blockchain technology to handle huge amounts of micropayments, meanwhile, it also provides payment and message signature, which makes payment without a trusted third party become possible. Raiden network will become channel technology expansion architecture for ESS.



With the help of micropayment channel network between both parties, a large number of payments can be done instantly in a repeated, frequent and two-direction way via offset balance. When transaction result needs settlement, submit the final result to blockchain for confirmation to solve extendable problems of public

blockchain network. From the perspective of technical level, technologies compatible with EVM blockchain at present can all be applied on raiden network, and on trans-chain token transaction in the future. As to contrast ratio, off-chain transaction of raiden network has two advantages compared with current on-chain token transaction, which are low cost (order of magnitudes lower) and low delay (can be done instantly).

In the future, ESS will treat raiden network as the infrastructure of blockchain, and provide enough flexible design, so that any third-party developer can develop application based on various transaction situation via raiden network on ESS chain.

5.2.6 Casper

Asymmetric RSA and ECC encryption algorithms and various signature methods with the combination of private key and public key endow ESS with the capacity to provide safe and smooth service for electronic money bag. Meanwhile, based on Casper protocol all the equipment on ESS chain must pay deposit before participating block-generation and consensus formation. If a verifier does anything regarded as invalid according to Casper, his deposit will be deducted and right for block-generation and consensus formation will also be cancelled. Therefore, ESS is kept to run in a positive operation.

5.2.7 Mobile wallet

The data security on the chain can be guaranteed by ESS consensus mechanism, while off-chain security shall be secured through redesign of hardware and encryption algorithm. A physical facility used safely in ESS shall include:

1) Safe P2P communication mechanism;

2) Safe electronic money bag storage space;

3) Intrusion detection system;

4) Record of tampered evidence.

At present, the ordinary hardware products on the market obviously cannot satisfy this demand. If ESS team is developing an intelligent phone, which means to add security sandbox on hardware of ordinary smartphones, then it will be safer. Electronic money bag of ESS user will be stored in security sandbox.

6. ESS Token

In order to realize better decentration and commercial use, ESS issues relevant token, 1 billion in total.

6.1 Token function:

6.1.1 Maintenance of the operation of ESS blockchain

As a distributed bookkeeping system, ESS with decentration function needs to use token of blockchain to encourage bookkeeping node to participate in bookkeeping and maintain normal operation of blockchain.

The reward for bookkeeping node mainly comes from additional issue interest and transaction fee. Any application or user obtaining ESS service needs to pay bookkeeping as transaction fee for bookkeeping node.

6.1.2 Transaction of commercial applications

Commercial use mainly includes the payment for various commercial uses on ESS:

Giving a reward, right transaction fee, issuing agency fee, platform licensing, bonus of crowd funding and crowdsourcing, transaction fee, withdrawal fee, etc.

6.2 Issuance of token:

Total issue volume of ESS; 1 billion, with no additional issue.

6.3 Allocation plan:

Strategic co-operating agency: 30%

Strategic partner: 10%

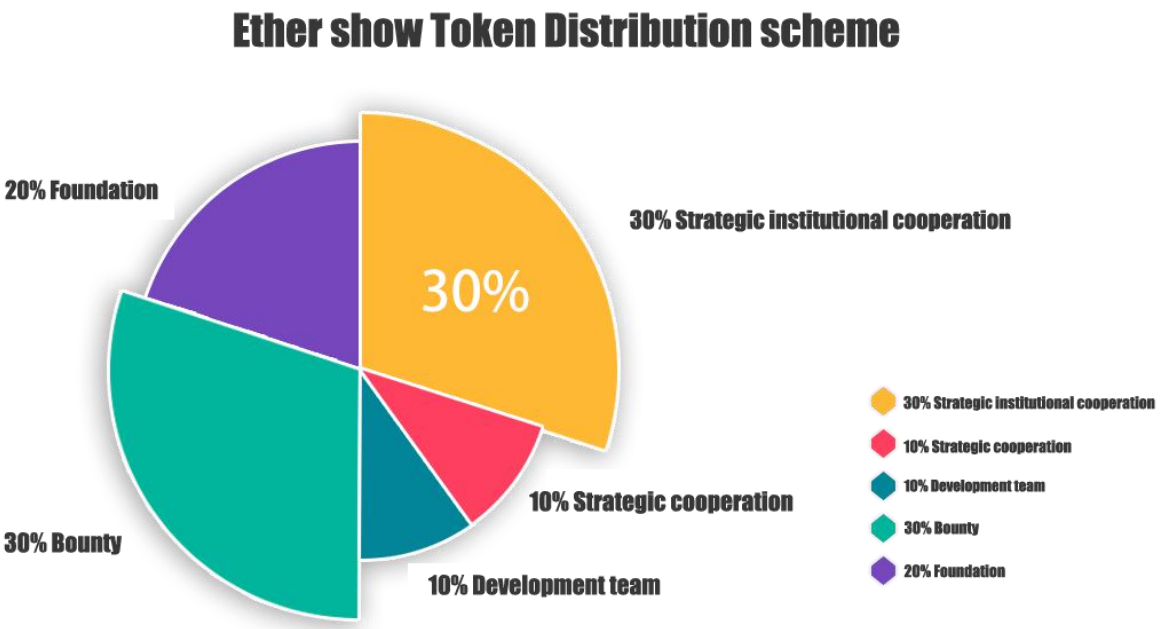
Development team: 10% (locked position)

Incentive: 30%

Encourage users to put network intellectual property on the chain, and reserve 30% as rewards.

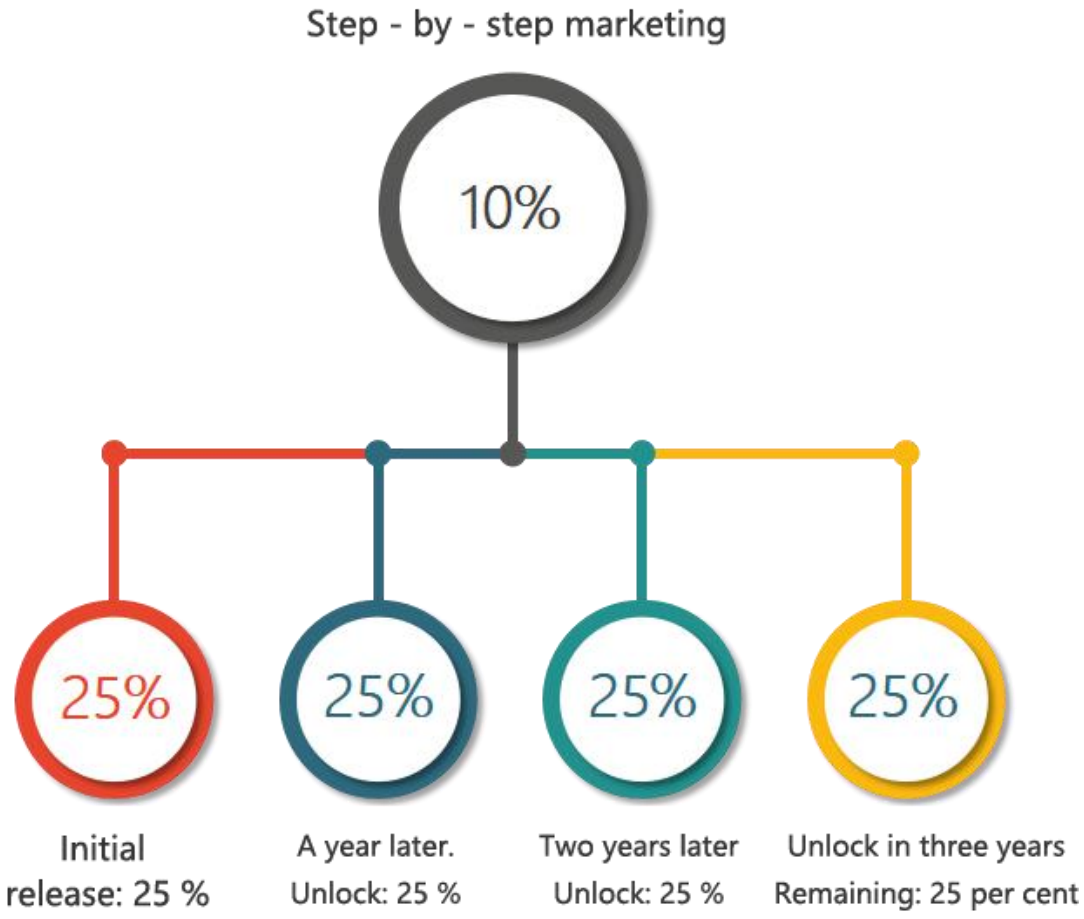
ESS foundation: 20%

It is used to maintain daily operation of ESS and promote the protection of network intellectual property.



6.4 Deblocking plan of the token held

The founding team holds 10% A total of 10% ESS is gradually put on the market in three years, with the first release of: 25%, unlocked after one year: 25%, unlocked after two years: 25%, the remaining part will be unlocked after three years: 25%.



7. Future Development and Opportunities of ESS

7.1 The status quo of China's blockchain technology operation

The developed countries actively arrange blockchains in many fields, such as intellectual property, finance, payment, audit and Internet of Things. At present, the industrial investment strength in China's relevant institutions is small; the intra-industry investments in the past are mainly concentrated in such fields as mining, quotation and information consultation, with low technical content and single business model. The application projects with further research on the business models

and a certain scale are deficient.

In recent two years, the development of and investment trend in the blockchain business application and deep exploration start to emerge within the industry, however, the volume is small and there is a lack of supports from large financial institutions and the government. As the Central Bank attaches more and more attention to blockchain, with the overflow effect of the latest progress of overseas science and technology, the gradual acknowledgement of Ethereum as the blockchain technology standard, the higher maturity of blockchain application and the increase of investible objects, blockchain is expected to be the next popular object after "Internet +". This will stimulate the enthusiasm of entrepreneurs and users, to form the benign road for blockchain development in China.

There were 65 investment events in total about digital currency blockchain in the world in 2015, and the disclosed amount reached 490 million USD, increasing by 35.73% compared with the total investment amount of 361 million USD in 2014; the cumulative amount of financing in the industry broke through 1 billion USD, and the financing scale of such main companies as Ripple, Blocksteam, Chain, DAH and Circle exceeded 50 million USD.

Seen from the Quarterly investment behaviors, when the speculation around blockchain gradually recedes, the entrepreneurs and institutions start to enter the period of project implementation and operation. But seen from the blockchain report of the first quarter, the downtrend of investment in consecutive quarters starts to reverse sharply and there is a significant rebound in both the total investment amount and the average transaction scale. Under the background of investment slowdown in the whole market at the moment, the investment performance in the blockchain industry is particularly outstanding. The new organization DAO founded by Ethereum has raised over 109 million USD since the end of April, which has been the largest crowd funding project in the world.

7.2 Blockchain capacity scale forecast between 2016 and 2020

Blockchain is not a technical speculation. 2017 is the first year of blockchain, particularly the blockchain concept rapidly raised since the second half year of 2017, the news about financing institutions and blockchain in the world emerged in endlessly, and there were more institutions and enterprises embracing blockchain technology. We don't think this is a technical speculation or a short-term popularity of technical hot points in Europe and America, and there are real market demands for blockchain technology if seen from the demand level. In 2018, as the entrance of a large amount of capital, it is hopeful to accelerate the ripening of the industry; with regard to the future, the decentration will be spread firstly in the intellectual property field and financial field, to completely optimize the traditional business procedures and improve the overall operating efficiency. While complete decentration will be the new development direction of internet industry, it is expected the blockchain technology will shape a decentralized and autonomous network organization, to realize the internet expression of the invisible hand in the market and the more thorough shared economy paradigm.

8. Introductions to founding team

8.1 Founder

Founder: Ling zhiping

Hon Hai Precision Industry Co
General manager of the business group
Foxconn global vice president

Co-founder: Li Junhao

Blockchain research expert
He has the experience of working for the blockchain technology development and practice for many years
The technology project launched by Foxconn Group

Co-founder: Bittel Carl

Blockchain research expert
He is skillful in financial data and quantitative analysis.
He has the experience of 10 years in data mining and analysis and is good at productization of technological achievements.

8.2 Technical team

Technology team leader :Ben

Senior PHP engineer Senior
safety monitoring engineer
He is familiar with the underlying application technology of blockchain
He is familiar with the stock trading system
He is familiar with the rules of computer software in the financial field

Commercial architecture design :Channing

Commercial architect
Financial lawyer
Top commercial architecture design in the internet field
Financial legal service

8.3 Financial advisory team

Finance Team: Wu Yulong

Chief operating officer
Taipei
PwC Taiwan

8.4 Legal advisory team

Legal Team: Lin Haotang

Register court: Taiwan Taipei District Court
Registration society:

Taipei Bar Association
Kaohsiung Bar Association
Tao-Yuan Bar Association

8.5 Strategic partner：

Executive vice president of Macao Trade and Investment Promotion Institute:
Zeng Houwo
Chairman of Macau Tianying International Investment Company:
Lin Yuanying
Director & general manager of Macau Kima International Gaming Investment:
Zhang Jinghai
General manager of Lifa Chemical Development Company:
Lin Yichang

9. Introduction

9.1 authorization of sponsors

FOXCONN®
鴻海科技集團

關於本人對區塊鏈技術應用於知識產權領域的態度

及相關項目開發的聲明

本人為鴻海科技集團（台灣鴻海精密工業股份有限公司）　　事業群總經理　　凌志平

以下是本人對區塊鏈技術的態度及開發聲明：

經過對區塊鏈技術的理解和認知，本人極度認可並推薦區塊鏈技術的使用，尤其是在知識產權領域，此技術將會對保護原創的文字、聲音、圖片、影像、專利、郵件發送、信息傳遞等內容，起到前所未有的積極作用。

另外，本事業群全權委託："深圳前沿區塊鏈應用咨詢有限公司代為開發以"以太秀秀"命名的、基於區塊鏈以太坊智能合約（Token sell）的、可結合知識產權保護的區塊鏈，並針對此技術及區塊鏈進行有效的推廣。

鴻海精密工業股份有限公司
事業群總經理　凌志平
日期：107 年 1 月 26 日

9.2 sponsor background introduction.

Taiwan hon hai group:

Hon hai, also known as hon hai group, is the world's 3 c (computer, communications, consumer electronics) is the largest and fastest growing foundry field, evaluation of the highest international group, its predecessor was founded in 1974 Taiwan's hon hai plastic enterprise co., LTD.

Has now become a professional research and development production of precision electrical connectors, cables and equipping, computer chassis assembly and standard system, computer system, wireless communication key zero components and assembly, optical communication components, consumer electronics, liquid crystal display device, semiconductor equipment, alloy materials, and other products of high and new technology enterprise.Hon hai was the us fortune magazine evaluation for popularity benchmarks for the global electronic top 15 enterprises, and become the world's only can for six consecutive years among the Business Week (Business Week) &t (IT100) among the top 10 companies.

Founded in 1974, hon hai, under the leadership of the chairman, Mr. Terry gou, took a forward-looking view and created the business model of "eCMMS" vertically integrated with the photoelectric vertical integration in the subcontract industry service area.Provide customers with the world's most competitive global solutions, from joint design (JDSM), joint development (JDVM) to global operations and after-sales services.

Hon hai precision industry co., LTD. (hereinafter referred to as hon hai) is the world's 3 c (computer, communications, consumer electronics) is the largest and fastest growing foundry field, evaluation of the highest international group, the group, the company not only in Taiwan, Hong Kong and London stock exchange traded, more from the current Taiwan's largest enterprises, the top three exporters, the greater China region's largest exporters in the Czech, Forbes and fortune global five hundred companies, and 3 c global foundry services etc.

Group for many years dedicated to research and development innovation, centering on the core technology, including: nanotechnology, process technology,

environmental protection technology, wireless communication technology, flat panel display precision mould technology, photoelectric technology, server/materials and application of optical communication technology and network technology, etc.Group with perfect r&d management system not only, more hard work on the intellectual rights management, actively in order to enhance the international competitiveness of Chinese as own duty, and the corporate social responsibility and energy conservation, emission reduction, green and back into the ring and other efforts to promote environmental protection and dedication;Around the world by the end of 2007 has got more than 20000 patents, not only in Taiwan for three consecutive years the annual number of patent application and allowed a few champions, in the United States at the Massachusetts institute of Technology in the global annual patent list (MIT Technology Review), the group is also the only listed in the top 20 Chinese communities.Also for this reason, hon hai by the us fortune magazine evaluation for popularity benchmarks for the global electronic top 15 enterprises, and become the world's only can for six consecutive years among the Business Week (Business Week) &t (IT100) of the top ten companies!

Timeline:

In 2016, hon hai bought Japanese sharp.

On February 3, 2005,FIH(foxconn international holdings limited) was listed on the stock exchange of Hong Kong.

In May 2004, the first construction project of taiyuan science and technology park was completed and put into use, and yantai science park began planning and construction.

On July 1, 2003, premier wen jiabao visited longhua science and technology park.

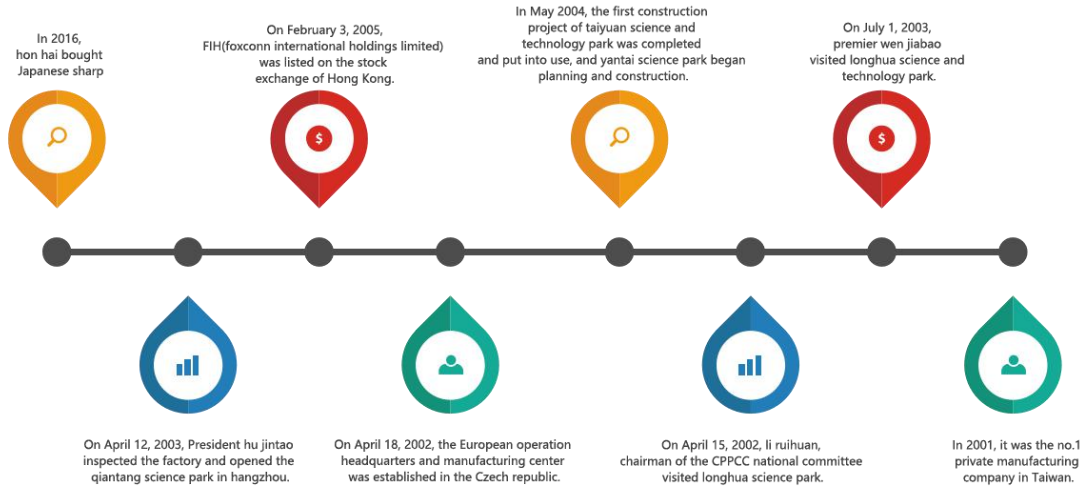
On April 12, 2003, President hu jintao inspected the factory and opened the qiantang science park in hangzhou.

On April 18, 2002, the European operation headquarters and manufacturing center was established in the Czech republic.

On April 15, 2002, li ruihuan, chairman of the CPPCC national committee visited longhua science park.

In 2001, it was the no.1 private manufacturing company in Taiwan.

Timeline



On February 22, 2000, President jiang zemin inspected longhua science park, the same year Beijing science and technology park was established.

In 1999, I made an alliance with Cisco System for Internet business application.

In 1998, the Scottish factory set up Foxteq(UK)LTD.

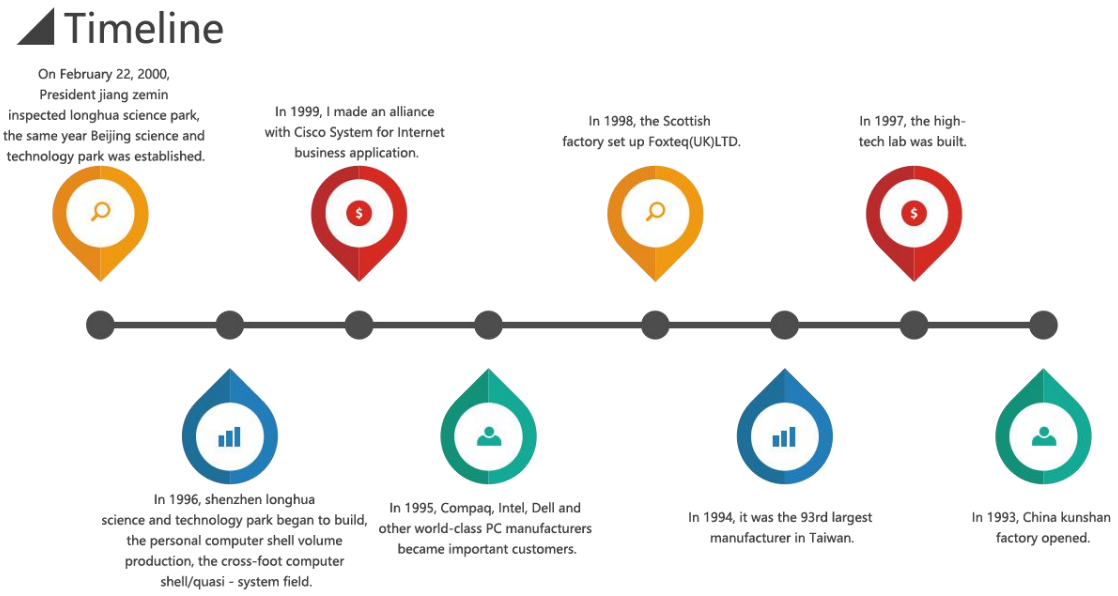
In 1997, the high-tech lab was built.

In 1996, shenzhen longhua science and technology park began to build, the personal computer shell volume production, the cross-foot computer shell/quasi - system field.

In 1995, Compaq, Intel, Dell and other world-class PC manufacturers became important customers.

In 1994, it was the 93rd largest manufacturer in Taiwan.

In 1993, China kunshan factory opened.



In 1991, stock listed, capital increase is US, 4.23 million yuan.

In 1988, the mainland shenzhen factory opened and entered the fast lane.

In 1985, the United States office was established to create the "FOXCONN" self-brand, which was first listed in Taiwan's manufacturing industry of 1000.

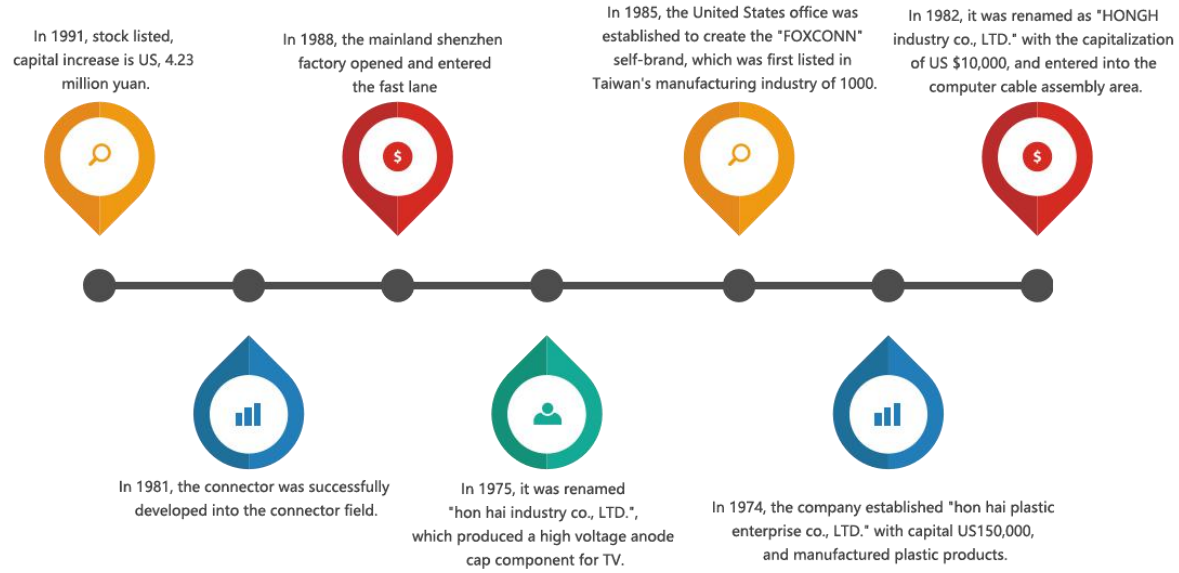
In 1982, it was renamed as "HONGH industry co., LTD." with the capitalization of US $10,000, and entered into the computer cable assembly area.

In 1981, the connector was successfully developed into the connector field.

In 1975, it was renamed "hon hai industry co., LTD.", which produced a high voltage anode cap component for TV.

In 1974, the company established "hon hai plastic enterprise co., LTD." with capital US150,000, and manufactured plastic products.

Timeline



Disclaimer

This document is for the purpose of information conveying only and does not constitute the related opinions on the transaction of this project. The above information or analysis does not constitute the investment decisions. This document does not constitute any investment advice, investment intent or instigated investment. This document shall not constitute nor be understood to provide any act of purchase and sale, and it shall not be a contract or commitment in any form. The relevant intended users clearly understand the risks of this project, once the investors participate in the investment, it means they understand and accept the risks of this project and are willing to undertake all the corresponding results or consequences personally.

The operation team will not undertake any direct or indirect losses caused by this project.