OASES

Chain to the miracle

BUSINESS WHITE PAPER

V1.0

CONTENTS

OVERVIEW

Oases ecosystem (called "Oases network" or "OAS") is the industry foundation chain and agreement of the next generation of block chain environmental protection and energy management.

Oases ecosystem realizes direct transformation of micro energy and macro energy under the condition of energy conservation based on material dimension and information dimension, and formulate a specific decentralized energy management technology solution to make the world more environment-friendly and energy-saving. The Oases ecosystem will join hands with several famous research institutions, such as the distributed technology laboratory of LinkedIn and the digital assets and block chain research institute of Zhejiang University in China aims to use block chain technology and combine with real economy industry to provide sound solutions for reducing environmental pollution, reducing energy consumption, monitoring emissions, collecting and analyzing environmental big data worldwide, to promote the establishment of global environmental standards and the formation of various energy asset trading markets, to build a more environment-friendly and energy-saving world.

When the blockchain gradually becomes the key to the future world order, exploring the environmental protection and energy technology in the future blockchain world has become the original intention of Oases ecosystem construction.

This paper will expound the core structure of Oases ecosystem and the corresponding technologies of trust, value, scene and circulation in environmental protection and energy management.

WHAT ARE THE MAIN GLOBAL ENVIRONMENTAL PROBLEMS FACING MANKIND?

So far, the environmental problems that have threatened human existence and have been recognized by human beings mainly include: global warming, ozone depletion, acid rain, shortage of fresh water resources, energy shortage, land desertification, forest resources, accelerated extinction of species, garbage disaster, toxic chemicals and many others.

- 23% of the cultivated land area is seriously degraded.
- 50% of river water flows are reduced or seriously polluted.
- 25% of mammals and 12% of birds are endangered.
- A quarter of all human diseases are related to environmental degradation.
- One-third of the land is facing desertification.
- More than 80 countries have severe water shortages.
- One billion people are threatened by desertification.

Pollution is now the biggest killer in the world, causing more premature deaths than wars, terrorism, natural disasters, smoking and disease. New research published in the medical journal the lancet says indoor and outdoor pollution killed about 9 million people in 2015, about one-sixth of all deaths.

WHAT CAUSES ENVIRONMENTAL POLLUTION?

1. The impact of population growth on the environment

（1）The pressure of population growth on land resources:

Population overload poses a great threat to the ecological environment, especially the agricultural ecological environment, such as non-agricultural land increases, land desertification, soil erosion, soil pollution and so on.

（2）The pressure of population growth on water resources

As the population increases, the consumption of water will increase correspondingly. Meanwhile, sewage will also increase correspondingly, and the per capita water resources will decrease. More than 100 countries in the world are short of water, more than 80 of them are seriously short of water and more than a dozen are suffering from water scarcity.

（3）The pressure of population growth on energy resources：

With the increase of population and economic development, the demand for energy is increasing. The world is currently dominated by the use of fossil fuels. On the one hand, it shortens its exhaustion time, on the other hand, it releases a large amount of CO2 causing the greenhouse effect and the global climate change, which harms the earth own health development.

（4）Population growth aggravates environmental pollution:

Population growth and economic development have increased the total amount of pollutants. A large number of industrial and agricultural waste emissions are discharged to the environment, affect the environment pollutant carrying amount and the degradation ability of poisonous and harmful substances, aggravate pollution of the environment and further affect the human health.

2. The impact of industrial development on the environment

Pollution is mainly caused by the "three wastes" (waste water, waste gas, waste residue) in production, mainly concentrated in paper, chemical, steel, electricity, food, mining, textile and other seven industries.

（1） Wastewater pollution

Including production wastewater, production sewage and cooling water. For example, the electrolytic salt industry wastewater contains mercury, heavy metal smelting wastewater contains lead, cadmium and other metals, electroplating wastewater contains cyanide and chromium and other heavy metals, petroleum refinery wastewater contains phenol, pesticide manufacturing industrial waste water contains a variety of pesticides and so on.

< Picture of fishermen making a living in green algae in Chao lake, Anhui province >

（2） Exhaust pollution

A large amount of untreated water, gas, slag and other hazardous wastes are discharged from industrial production, which will seriously damage the ecological balance of agriculture and natural resources and cause great harm to the development of agricultural production. Dioxins, produced by incineration of waste and vehicle emissions, is the most toxic of the known compounds.

< Picture of Beijing's haze >

（3） Offscum pollution

In industrial production, toxic, inflammable, corrosive, disease-causing, chemically reactive and other harmful solid wastes are discharged. Long-term storage not only occupies a large amount of land, but also causes serious pollution and harm to water system and atmosphere.

<Picture of Bike cemetery >

• WHAT ARE THE EFFECTS OF ENVIRONMENTAL PROBLEMS ON HUMAN BEINGS?

Human is a natural part of nature. Nearly hundred years irrational overspeed development, human society has made human activity become a leading negative factor affecting the stability of the earth's natural environment at all levels. Forest and grassland vegetation degradation or death, loss of biodiversity, and severe pollution of soil and water loss, the atmospheric greenhouse effect highlights and the destruction of the ozone layer, all this has been a wake-up call to mankind. Human beings must be kind to nature and have control over their own development and activities. The harmonious development of human and nature has become one of the important contents of the scientific outlook on development.

WHAT KIND OF WORLD DO WE NEED?

WE NEED A WORLD OF COCONUT FOREST SHADE AND CLEAR WATER WHITE SAND.

WE NEED A WORLD OF BLUE SKY AND WHITE CLOUDS TO STRETCH AS FAR AS THE EYE CAN SEE.

WE NEED A CLEAN, LOW-CARBON AND ENVIRONMENT-FRIENDLY WORLD.

ENVIRONMENTAL TECHNOLOGY

Under the concept of Internet + environmental protection, environmental technology has moved from "reducing excess emissions" to "improving normal emissions", and actively use ICT (Information and Communication Technology) to solve environmental problems, such as:

Remote control of electricity consumption in buildings and homes to use and manage energy more efficiently. For example, Haier's mobile APP can remotely control Haier's air conditioning, Xiaomi's mobile APP can remotely control its air purifier.

Use big data to reduce wasteful logistics and business. Reduce emissions by improving logistics or navigation systems, such as JD’s GPS/GIS vehicle information centralized control and scheduling.

Industrial environmental monitoring equipment and technology developed by various environmental protection manufacturers based on the Internet of things, such as water quality analyzer in the United States.

And various monitoring platforms and APPs promoted by the Internet and new media, such as "blue map", "environmental protection snapshot".

The green financial model of the Internet will gather the public's attention to the environment. Through financial innovation, we will achieve the financialization of social concern, invest in the business and public welfare practice of environmental protection, and cultivate people's green lifestyle. Such as the "Ant forest" of alipay public welfare, and Tencent’s public welfare "a bit of love, a forest" activity.

Although the current Internet technology is very advanced, in the face of such complex environmental problems, Internet technology cannot solve existing environmental protection and energy management problems well limited by characteristics such as centralization, tampering and lack of trust.

OASES ECOSYSTEM TECHNICAL THEORY

The technical theory of Oases originates from a system, namely OasesChain.

Oases ecosystem is based on two dimensions, namely material dimension and information dimension。

Three transformation structures of Oases ecosystem， namely space-time structure（OSS）， component structure (OCDS), and circulation structure (OFS)。

The way Oases view things from a narrow materialization perspective has been transformed into a broad study and application of energy levels， and makes everything the core value of energy throughout.

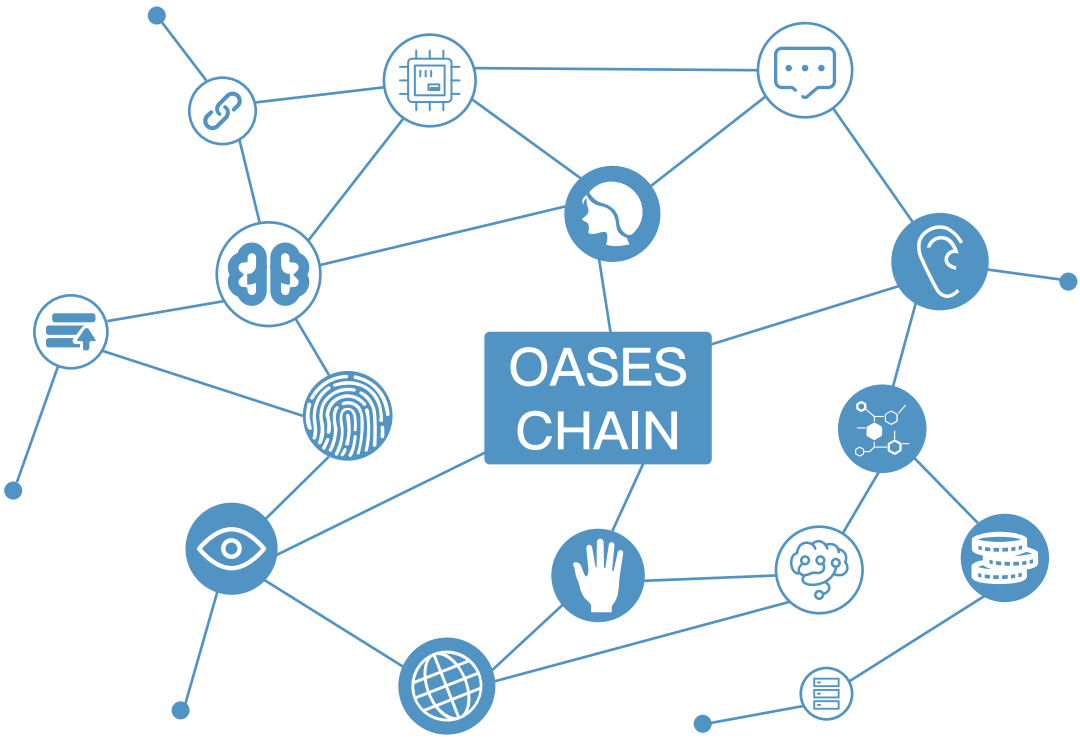
Three fundamental laws of thermodynamics tell us that all matter has energy. Energy is conserved. All kinds of energy can be converted to each other. Things tend to gravitate towards equilibrium spontaneously. A material system in equilibrium can be described by several observable measurements. Under these laws, according to the second law of thermodynamics, Oases ecosystem combines block chain technology with entropy change theory through intelligent contract to realize effectively measured and transformed in the specific application scenarios of the material and information energy in the ecosystem. Pioneering the transformation of energy conservation from theory to reality and realize the generalized flow of material flow and information flow.

ECOSYSTEM

Ecosystem is one interaction system that combines biological and abiotic. The Oases ecosystem constitutes the ecological elements and their quantitative relationship. The abiotic factors in the system interact with the organisms in it, exchanging matter and energy, and forming a whole through the connection of material flow and information flow. In addition, the following important factors are included in the Oases ecosystem:

（1）Decentralized

All the energy of the ecosystem comes from nature and based on the basic theory of Oases ecosystem to make all things have energy.

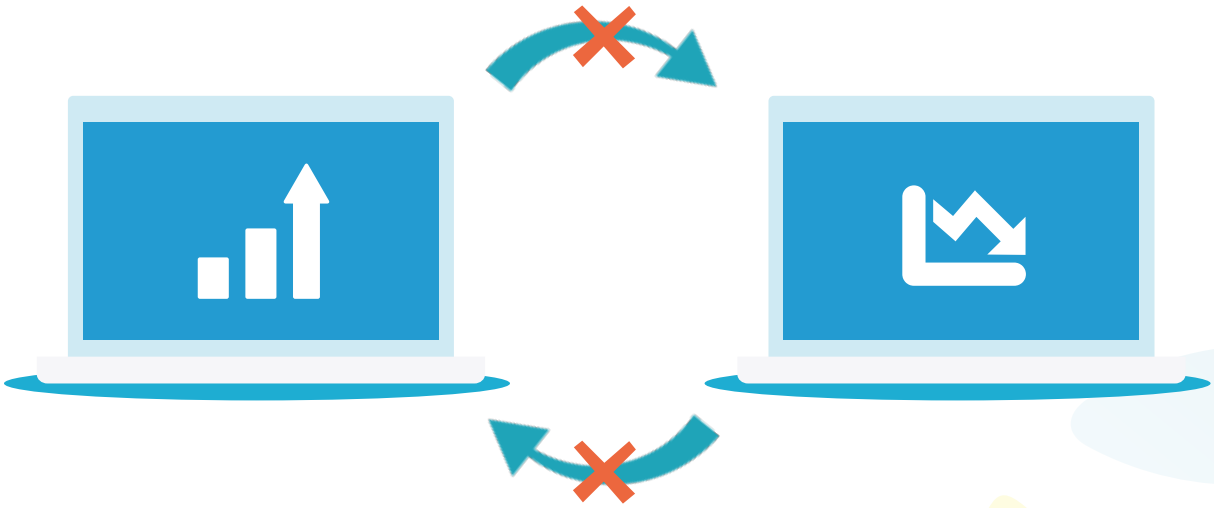


（2）Distributed bookkeeping and storage

Ensure that material flow and information flow in both dimensions are real, complete and traceable.

（3）Tamper-proofing techniques

In non-ecological or unusual circumstances， such as if the increase in entropy is not proportional to the decrease in effective energy, prevent or eliminate the interaction of material flow or information flow.



（4）Consensus mechanism

Based on the theories of Oases ecosystem, all the energy in ecology can realize the conservation and mutual transformation of material flow and information flow.

（5）Anonymous system

It allows all energy in the ecosystem to be converted to each other in a hashing encrypted state. Each transformed energy has its own unique identification ID, includig production, use, certification, storage and verification, etc. It's easy to invoked by other system in the ecosystem.

（6）Value transfer

The energy between the physical and information dimensions of an ecosystem can be transformed into each other, exchange value to make full use of it.

• OBJECT DIMENSION（OMF）

Object, or matter, is the substance and field that make up everything in the universe. Matter cannot be created and destroyed. The universe is infinitely large, and if there is no matter, it is nothing. The universe didn't start and die, because matter tends to go to infinity, the energy transfer between them also tends to go to infinity.

In ecosystem, everything seen and transformed belongs to the material dimension.

The physical dimension determines the state of matter and the nature of energy. It is the theoretical basis of Oases Material Flow (also known as OMF).

• INFROMATION DIMENSION（OIF）

Information is the relationship between matter and matter. The information dimension generally has two meanings, first of all, direct information, that is, the direct relationship between substances, which can change with the change of material form. Secondly, indirect information, that is, indirect relations between substances. Indirect information can live and die.

The information dimension holds that information also has energy between transmission. It is the theoretical basis of Oases Information Flow (also known as OIF).

• SPACE-TIME DIMENSION（OSS）

Space-time structure is the different configuration and morphological change characteristics of various biological components or communities in space and time, including horizontal structure, vertical structure and spatial distribution pattern, etc. For example, different altitude, different light, heat, water, soil, etc. directly affect the production and layout of agriculture, forestry and animal husbandry industries, and form a unique vertical ecosystem.

Oases space-time structure (OSS) defines the expression form of energy in the ecosystem.

• COMPONENT STRUCTURE（OCDS）

Component structure is a system structure in an ecosystem composed of different biological types or different combinations of quantities. Different species structure forms different ecosystems, different species proportion will also form different ecological characteristics.

Oases component structure (OCDS) defines the energy structure and characteristics of substances in the ecosystem.

• DISTRIBUTED STORAGE

Distributed storage is the key of Oases ecology. Oases storage technology, using block chain distribution system, takes the long-term unused storage space under the ecosystem (OPC), as well as the self-developed OasesNAS (ONS) as a distributed storage nodes to ensure security and integrity of the data.

• DISTRIBUTED COMPUTING

Distributed computing is the core of Oases system, which is used to handle all service management and event management of the entire node. The major components of the Oases system collaborate with each other through the distributed computing framework, and are connected as an organic whole.

• VIRTUAL MACHINE（OEVM）

The design and operation virtual machine on all participant nodes in a point-to-point network of virtual machines in Oases ecosystem. It can read and write executable code and data from a blockchain and verify data signatures, and can run the code in a semi-turing, complete way. It executes code only when it receives a message that is validated with a data signature and the information stored on the block chain will distinguish the appropriate behavior.

• CIRCULATE TOKEN

Oases Token under the Oases ecosystem not only supports the circulation in the traditional commercial field, but also constructively applies to the mutual transformation of energy in the new commercial scene. Oases Token will realize the vision of blockchain connecting all energies and lay a foundation for trust and value exchange in the future business energy field.

TECHNICAL ARCHITECTURE

Oases ecosystem benefits from the advantages of block chain technology, such as decentralization, non-tampering, value transfer and other features, and is being favored and trusted by more and more industries. It is also gradually solve the many pain points of traditional Internet, such as poor performance, business scenario is difficult to support, consensus shows the trend of centralization, competition among the same trade is increasing day by day, lack of effective interaction between platform and so on.

• OASES ECOSYSTEM ARCHITECTURE MODULE

It is composed of theoretical basis and block chain technology of Oases ecosystem, mainly include:

Backbone system：OasesChain（OAS Chain）；

virtual system：OasesEVM（OEVM）；

power module： material flow module（OMFM），

information flow module（OIFM）；

sort module：space-time structure module（OSSM），component structure modul（OCDSM）；

consensus module： circulatin structure module（OFSM）；

Distributed storage module: OasesPC module (OPM), OasesNAS module (ONM);

Distributed computing module: Oases smart contracts, OasesPC module (OPM);

Circulation module: Oases Token (OAS)

THE QUANTIFICATION OF MATERIAL FLOW AND INFORMATION FLOW BY OASES ECOSYSTEM

The theory of entropy change (S = k (Log Ω)) describes the energy can be used for the degree of acting. In the traditional Internet era, due to problems such as complete centralization of data and insufficient reliability, it is impossible to accurately measure energy.

Oases ecosystem used block chain and entropy change theory to make completely real and traceable measurement of changes in material flow and information flow for the first time.

（1）A basic method for the determination of energy change of material flow

We can understand the theory of entropy change through a classic case study.

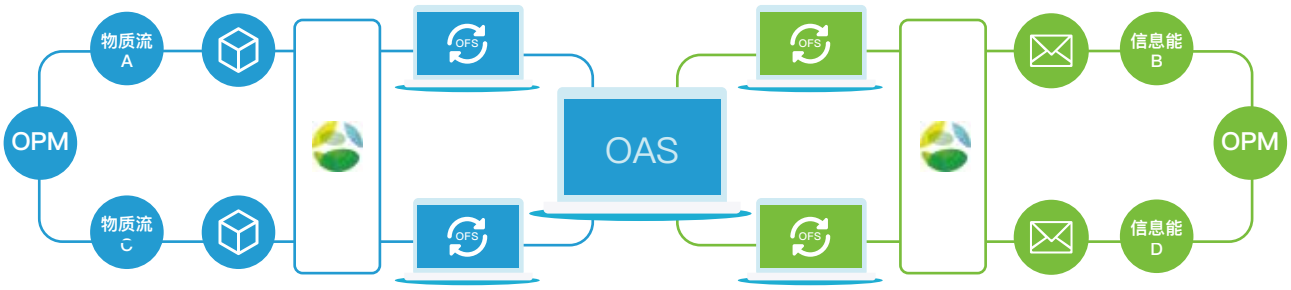
Heat Q is transferred from high temperature (T1) object to low temperature (T2) object, and the entropy of high temperature object decreases, dS1=dQ/T1, entropy of a cold object increases, dS2=dQ/T2. Think of two objects as a system, the change of entropy is dS=dS2－dS1>0.

It can be seen that entropy change theory can reveal the change of energy, and confirm this change through block chain technology, and determine the change of energy of material flow.

(2)Basic method for measuring energy change of information flow:

Entropy in information flow energy is to describe the size and function of information contained in information. If the probability of action is low, the entropy value is low. The second law of thermodynamics defines that entropy is constant in a system where energy is conserved. In heat balance system, the entropy is maximized. By using this theory and combining block chain technology, the Oases ecosystem can truly and completely measure the change of energy in information flow.

• OASES ECOSYSTEM- FLOW CHART OF INTERACTION BETWEEN ENERGY AND TOKEN



SYSTEM APPLICATION

In combination with block chain technology, the Oases ecosystem reasonably quantifies, uses and recycles material flow and information flow to improve people's daily environmental habits and environmental problems and improve the efficiency of energy use.

GOING TO REACH

（1）Advocate the green life concept of "sports= health"

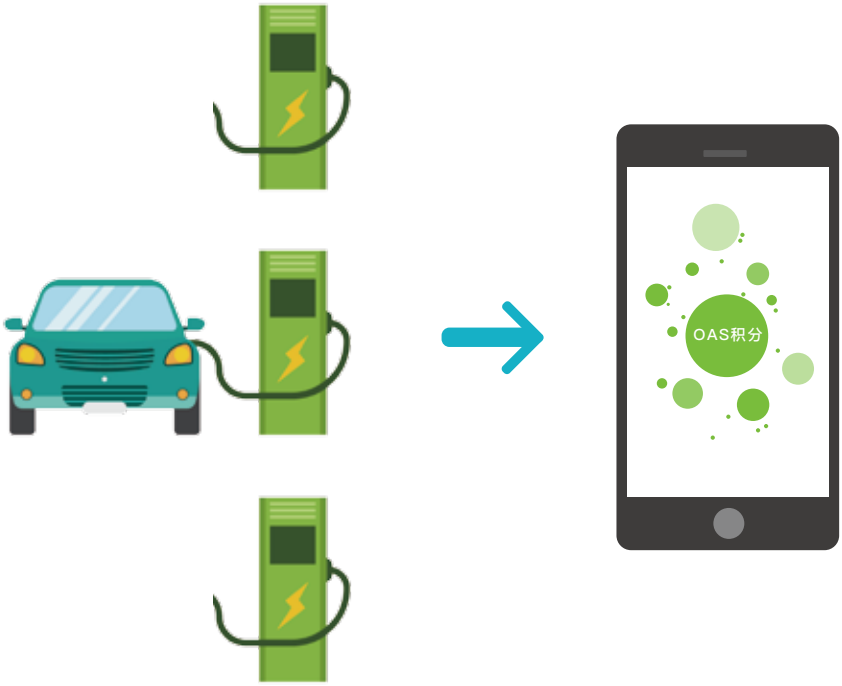
At present, various kinds of sports and fitness apps have driven young people's enthusiasm for personal sports. Daily " show steps" has become a habit in life. But in the APP centralized operation of fitness classes, individual sports integral cannot transfer to other APP, in addition to "show" within the centralized APP, it cannot further cultivate the interaction and fun of fitness.

Through block chain technology, Oases link fitness data and points between various central fitness APP platforms. It enables users to transform and quantify different energies through Oases Chain in various fitness APP platforms under Oases ecology, allows users to PK with more fitness lovers across APPs and exchange Oases Token. Encourage users to focus on healthy lifestyle habits.

(3)Promote the use of new energy vehicles

The main pollutants caused by automobile exhaust are carbon monoxide, hydrocarbons, nitrogen oxides, sulfur dioxide, lead compounds, benzopyrene and solid particles, can cause photochemical smog and so on. Discharged CO, NOx, SOx, smoldering hydrocarbon HC, particulate PM and stink gases such as air pollution, great harm to humans and animals and plants. Promoting the use of new energy vehicles could greatly alleviate this problem.

But the difficulty of recharging new energy vehicles has been hampering the development of the industry. The main reason of difficult charging is the strong dependence on the charging pile, moreover, a large number of privately invested charging facilities cannot be shared with the outside world, and other potential power providers (such as community convenience stores and car parks) cannot provide charging services for electric cars. Its essence is the lack of an effective power energy trading means, including supply and demand matching, measurement, settlement means. Oases ecosystem provides potential power providers (such as private charging piles, parking lots and convenience stores) with smart metering devices and charging devices that enable them to provide charging services, and the available resources are published on the Oases ecosystem. Users can quickly find charging points and complete transactions through various channels, which will greatly promote the efficient transmission and utilization of electric energy.



(4) Promote energy conservation and emission reduction in the IOT intelligent white home appliance industry

Internet of things (IOT) intelligent home appliances are home appliances products formed after the introduction of microprocessor, sensor technology and network communication technology into home appliances, can automatically perceive the spatial state of the house, the state of the home appliances themselves and the state of service of home appliances, and can automatically control and receive control instructions in the house or remote by residential users. At the same time, as an integral part of intelligent home appliances, intelligent home appliances can be connected with other home appliances, household appliances and facilities in the house to form a system to realize the function of intelligent home.

In recent years, the state has been increasing its efforts to protect the environment and save energy, and consumers are increasingly demanding of environmental protection appliances. When consumers buy household appliances, they pay special attention to the energy-saving index of products.

Oases ecological system in combination with the Internet of things technology monitoring energy efficiency for different brand of home appliance, such as air conditioning, air purifiers and other equipment in the ecosystem. Comprehensively assess energy conservation level. At the same time, guide consumers to use these electricity reasonably and efficiently, for example, setting the air conditioning temperature reasonably to save unnecessary energy consumption. Oases ecosystem can quantify these originally wasted energy resources and combine them with specific use scenarios to enable users to obtain corresponding OAS while saving energy and reducing emissions, so as to improve users' awareness of environmental protection.

MEDIUM-TERM PLANNING

（1） Help balance the energy structure

The shortage of traditional energy and the environmental pollution has become a worldwide problem. On the other hand, renewable energy technologies (such as wind and solar) that can be used by human beings are gradually maturing, but they are not widely used. According to industry survey, wind accounts for only 4% of electricity generation and solar for 1%. .

The energy interaction platform of Oases ecosystem can build a certain range of virtualized community energy Internet through the construction of information platform and the reconstruction of business model. Its application architecture includes: distribution of available resources, energy search and demand release, intelligent matching, order execution, intelligent electricity meter and metering data transmission, electronic wallet, order settlement and other functions.

（2） Strengthen energy performance contracting

Energy Performance Contracting (EPC, domestic referred to as"EMC") is an energy saving investment that pays for the whole cost of energy saving projects by saving energy costs. This energy saving investment allows users to use future energy saving benefits to upgrade factories and equipment, reduce current operating costs and improve energy efficiency. According to the data of "analysis report on the development prospect and investment strategy planning of contract energy management (EMC) industry" released by forward-looking industry research institute, the output value of China's contract energy management industry was nearly 100 billion yuan, reaching 92.9 billion yuan in 2013, the output value of China's contracted energy management industry reached 160.7 billion yuan, with an annual energy saving capacity of 35.79 million tons of standard coal and an annual emission reduction of 10.2 million tons of carbon dioxide in 2016.

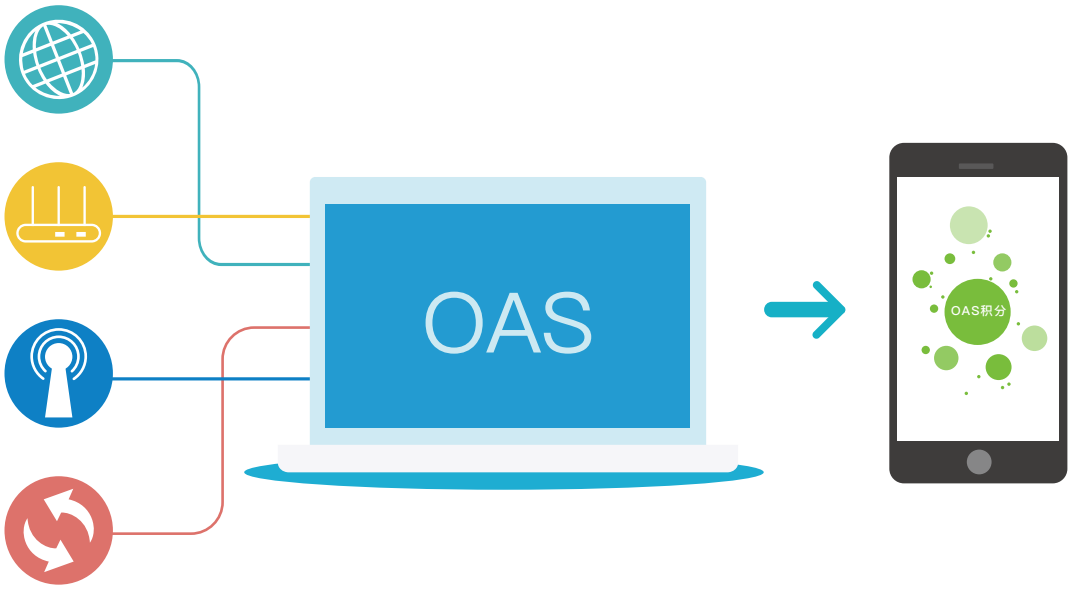
Although China's energy conservation service industry and contract energy management market have made remarkable achievements in recent years, there are still some deep problems to be solved in the traditional industry. For example, privacy protection of key data, poor industrial synergistic effect, aggregation but not conformity, and difficulty in scientific evaluation of energy efficiency, etc.

Oases ecological system can collect and exchange key data anonymously, objective comprehensive evaluate services company in the past project benefits of energy conservation, and use the standard consensus agreement, the energy consumption data acquisition and analysis, scientific assessment and energy saving benefits.

（3） Improve the efficiency of energy consumption per unit of household network and equipment

At present, broadband, router, computer and NAS devices used by households are largely wasted due to their low frequency of use, such as the surplus network bandwidth, the 24-hour router, the personal PC with a load less than 50% of the total CPU processing capacity, and the NAS with a large memory surplus, etc.

Oases ecosystem using decentralized and distributed operation characteristics of block chain technology, to efficiently use the surplus resources of these devices, which can help the main network increase storage and computing capacity overall. Users who provide surplus resources can get corresponding incentive points. At the same time, Oases ecosystem will combine with mainstream brands in the industry to launch a series of related energy-saving block chain hardware products, such as adaptive router, distributed personal PC and NAS mining machine products, increase the power to save energy and reduce emissions in daily life.



BACKGROUND

Desertification is called the "cancer" of the earth. In the ninth meeting of the UN Convention on Combat Desertification (UNCCD) warned, said unless countries implement policies to slow desertification, otherwise, before 2025, there will be nearly 70% of the land parched the earth. Environmental pollution, excessive energy use and human over-exploitation are the most important causes of cancer on earth.

When there is no oasis in the desert, no stars in the sky, the world is empty, I only can sigh at that moment.

In today's highly polluted nature and society, it is absolutely necessary to reunderstand and interpret this proposition with modern scientific knowledge and humanistic knowledge, which concerns not only the living environment of individuals and groups, but also the sustainable development of human beings.

We need numerous oases in exchange for vast tracts of land. We need verdures in exchange for the sea of stars. We need a perfect world to continue to embrace the future.

1.Centralized operation

Although Internet of things technology has been widely used under ICT technology, APP systems of all brands operate in a centralized way and cannot operate across platforms. Moreover, they are unable to uniformly manage energy resources, resulting in energy waste. Environmental data can be corrupted or rewritten during recording. Can't learn and verify how the data content changes over time. The ID of the user on the centralized platform is completely real-name, and the privacy is snooped out.

2. Cannot guarantee the integrity of data, easy to be tampered

Environmental data can be corrupted or rewritten during recording.

3. Data is not transparent

Can't learn and verify how the data content changes over time

4. Cannot protect privacy

The ID of the user on the central flat is completely real-name, privacy is snooped out

5. Lack of confidence

Due to the problem of trust, data between platforms and equipment cannot be communicated, resulting in unnecessary energy waste. It is also not conducive to the detection and analysis of the overall environment. For example, due to the lack of a "consensus mechanism", the testing data of all kinds of instruments cannot meet the evaluation requirements, and the data can only be collected and analyzed in a centralized LAN.

6. Disorganized communitization construction

Public welfare organizations cannot reasonably and harmoniously organize environmental protection activities, and users do not have a strong sense of participation. As a result, public welfare activities only pursue quantity, but lack quality, resulting in waste of resources.

CIRCULATION STRUCTURE（OFS）

In the traditional sense, the circulation structure is the food chain and food network formed by the link of food nutrition between organisms in the ecosystem and between producers, consumers and decomposers.

The circulation structure in the Oases ecosystem is to redefine the narrow circle to the broad transformation on the basis of the traditional meaning, and is the key way to form the energy cycle and energy transformation.

INTELLIGENT CONTRACT

The Oases ecosystem supports the interaction between material flow, information flow and Token through intelligent contracts. Oases system, as the hub of an exchange of value using block chain technology and relying on the existing cloud computing, big data, artificial intelligence technology, provides commercial energy conversion with perfect theory and technical support.

CONSENSUS PROTOCOLS

DSC protocol (dynamic equity consensus protocol) is a consensus mechanism without bifurcation. DSC algorithm does not pursue high efficiency, it focuses on efficiency and adopts hashing algorithm at the same time to realize the fairness of consensus process.

Oases ecosystem adopts DSC protocol to guarantee the security and fairness of the consensus process. Consensus can be reached with very little time and calculation. Since the consensus group is randomly generated based on the hashing algorithm, DSC can prevent attacks better and be more secure than dozens of more concentrated accounting nodes.

INCENTIVE MECHANISM

In order to encourage more participants involved in bookkeeping, maintain the normal running of Oases, the nodes involved in bookkeeping, including members of the consensus group that produced the alternative blockchain, will be motivated by the corresponding OAS after a consensus reached to generate the block each time. OAS incentives come from two parts: Oases system reserves 50% OAS for the incentive of consensus bookkeeping, and you can get the transaction fee income included in each block.

SYSTEM APPLICATION

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GOING TO REACH

（1）Advocate the green life concept of "sports= health"

At present, various kinds of sports and fitness apps have driven young people's enthusiasm for personal sports. Daily " show steps" has become a habit in life. But in the APP centralized operation of fitness classes, individual sports integral cannot transfer to other APP, in addition to "show" within the centralized APP, it cannot further cultivate the interaction and fun of fitness.

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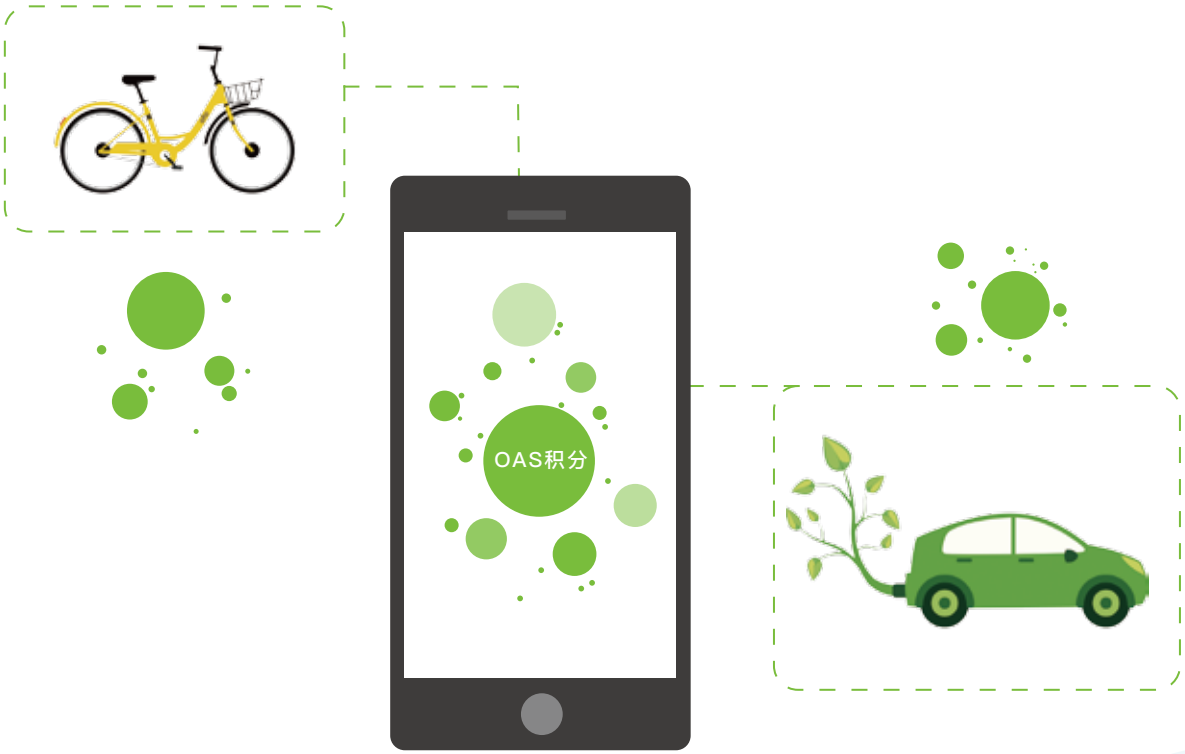
(2)Promote more environmentally friendly ways to travel (public transportation, sharing bicycles)

Currently, more and more environmentalists use shared cycling or time-sharing leasing new energy vehicles replace of traditional energy vehicles way to travel to improve the environmental problems caused by emissions. However, there is no connection between various bike APPs and new energy car APPs, and users cannot feel the social benefits created by environmental actions.

The Oases ecosystem seamlessly connects various APP platforms of the sharing economy, enabling users to understand the specific contribution to the environment through their own efforts while using the green travel mode. The Oases ecosystem makes use of the block chain technology to make the contribution values generated under different sharing economic platforms realize intercommunication. Users can get corresponding OAS points on any platform according to their different contributions, so as to encourage them to use more green and environment-friendly ways to travel and reduce the burden of the earth.



（4） Decentralized, traceable resource recovery

Traditional renewable resources recycling industry has some pain points, such as unbalanced layout, opaque recycling price of centralized recycling station, inability to track the whereabouts after recycling, inability to understand whether there is secondary pollution after recycling, etc.

The Oases ecosystem can reasonably distribute the distributed recovery platform and cancel the recovery intermediary link by analyzing the block data on the basis of the early Internet of things, so as to realize the profit difference without intermediaries. Users can get points by providing recyclable resources.

At the same time, Oases ecosystem records the entire regeneration process after resource recovery, entire material life cycle can be traced back to ensure the best use of the product to avoid or reduce secondary pollution.

FORWARD LOOKING

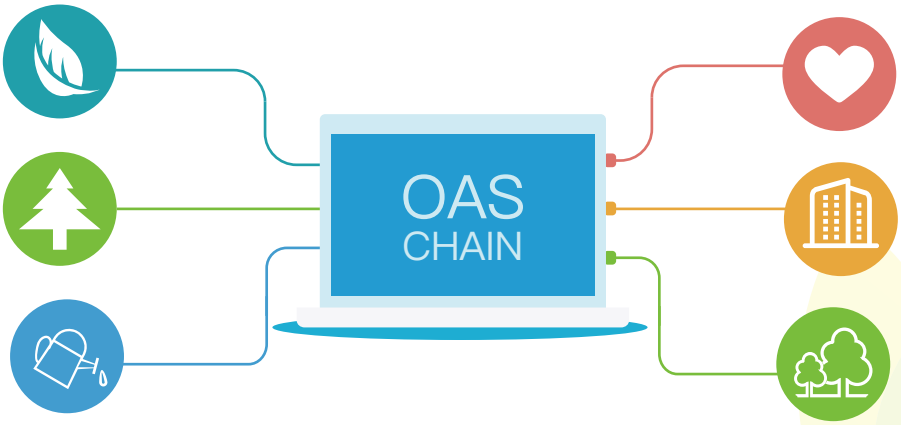
Environment data collection requires large capacity, multiple types and fast access speed, and the application value after collection is mainly reflected in data collection analysis. At present, the environmental information mechanism chaos, the system construction and infrastructure are scattered, the application "chimney" and data "islands" everywhere , business cooperation and information resources development and utilization are low, comprehensive support and the public service ability weak, difficult to adapt to and meet the demand of ecological environment protection work in the new period.

In addition, the software technology security problem of blockchain is gradually emerging. In the future, quantum computing is threatening the core of blockchain--Quantum computing threatens the security protocols of blockchain, quantum computers with more computational power can monopolize computational power. It is the future security trend of block chain to rely on chip hardware encryption technology to protect data security.

（1）Combined with block chain chip technology, the coordination and unification of environment information can be realized

Environmental information is related to environmental management, protection, improvement and use, including all information such as the state of the environment, biodiversity (including genetically modified organisms) and factors that may affect the environment (administrative measures, environmental agreements, planning projects, and the cost of making environmental decisions-- benefits and other economic analysis and assumptions).

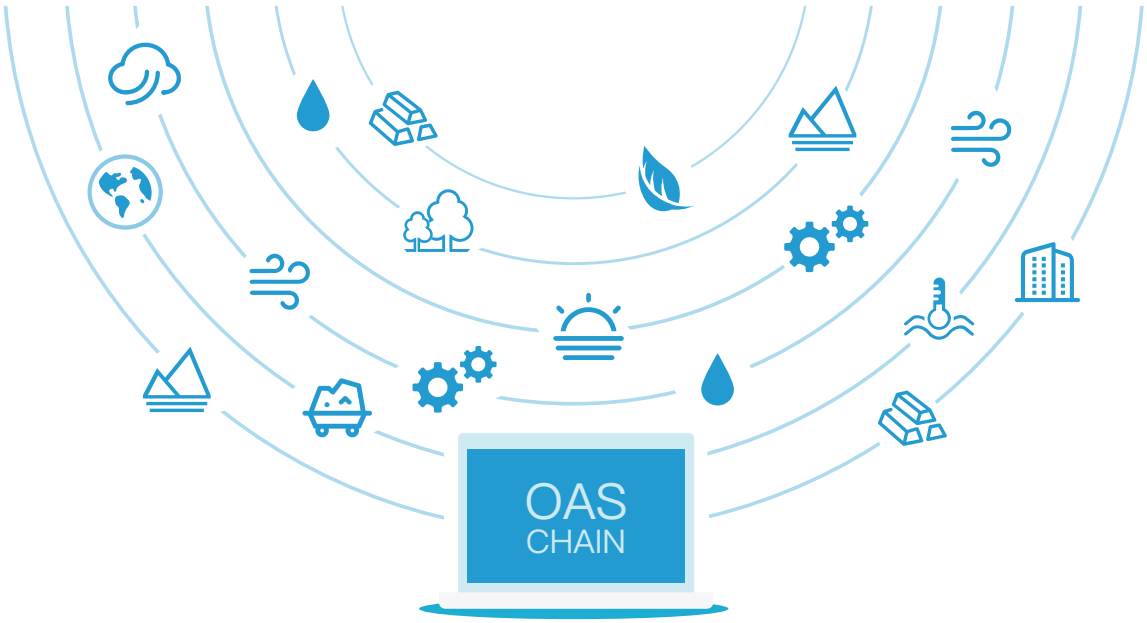
Use block chain chip technology to harmonize information that is or may be affected by environmental conditions or factors, behaviours or methods that affect the environment to protect human health and safety, human living conditions, cultural landscape and the ecology of buildings.



（2）Promote comprehensive integration and sharing of environmental and energy data resources

Resource and energy data include resource ownership throughout the country, pollutant emission, pollution control, solid waste utilization, noise monitoring, environmental conditions, ecological protection, basic situation, main rivers status in land, mineral basic reserves, energy metal basic reserves, regional land use situation, forest resources condition, grassland utilization, wetland area, the geological disaster situation, emergency environmental accidents, marine seismic disasters, natural protection basic situation, natural disaster loss situation, average temperatures in major cities across the country, air quality, relative humidity, precipitation, sunshine time, water resources, pollution control investment, energy production and consumption and composition, energy balance, energy production, consumption elasticity coefficient, energy consumption data.

Using block chain technology, integrate numerous local environmental and energy resource to promote the application of data open, data exchange and innovative to provide innovative undertaking data services for the government, enterprise and individual, realize the value of the data.



（3）Help industry organizations and government departments formulate ecological and environmental policies in a scientific way to improve the capacity of environmental emergency response

A series of steps are required from the discovery of environmental problems to the formulation of environmental policies.

The first step is to identify, elaborate and name environmental issues. The discovery and elaboration of environmental problems are mainly in the realm of scientific research, naming separates the problem from similar problems or from the original big problems. On this basis, the relevant scientific, technical, moral or legal issues should also be studied. When problems are identified and recognized scientifically, environmental problems are presented to the public, but not all environmental problems will be concerned by the public. This phase is mainly about politics and the media.

When environmental concerns become public concerns, the political agenda will be pushed forward, not all environmental issues of public concern will enter the political arena. After entering the political level, various political forces began to fight, set the agenda and take measures. The public and voters talk about the public agenda. Lawmakers and government officials mainly talk about the government agenda, while only a small part of the government agenda will be included in the decision-making agenda.

Using blockchain technology to bring all three agendas together, there will be legitimacy, public support and government action, and environmental policy will soon emerge.

（4）Innovation of ecological environment supervision model

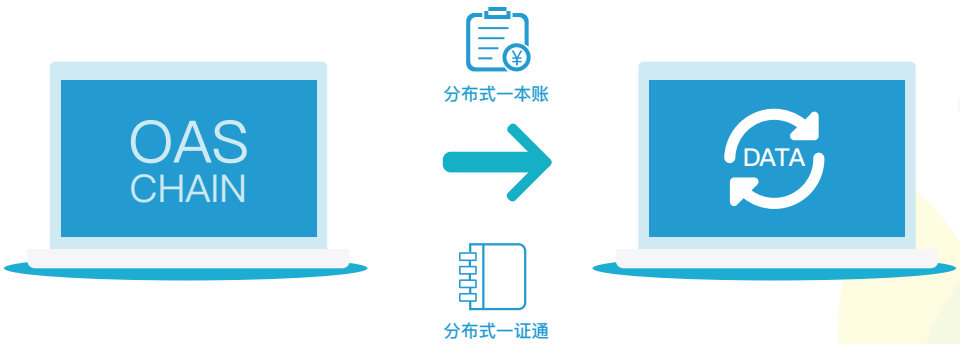
Use cloud+ block chain technology to integrate environmental historical data, form the case knowledge base, carry out analysis and application of big data of environmental forecasting and early warning, improve environmental forecasting ability, promote unified supervision of environmental assessment, carry out supervision and inspection of the environment, strengthen the means of environmental supervision, establish the "one certification" pollution source management model, strengthen the comprehensive application of satellite remote sensing, unmanned aerial vehicles, the Internet of things and survey and statistics, improve the ability to monitor the integration of nature and ecology, etc. This paper not only discusses environmental assessment, supervision, early warning and forecast, pollution control, law enforcement means, credit management, historical data application and other aspects in detail, but also present the data from generation to application scenarios.

Establish "distributed one book account" and "distributed one card" polluant source management model of Oases environmental impact assessment data, promote the authenticity, timeliness, security and sharing of all kinds of environmental data.

The management mode of "distributed one book account" is mainly to promote unified supervision of EIA, establish environmental impact assessment data standard and sharing mechanism, build national environmental impact assessment management information system, improve the capacity of EIA statistical analysis, forecast and early warning, promote the shift from prior approval of EIA supervision to on-going and post-event supervision.

Environmental standards, environmental monitoring, environmental statistics, environmental assessment, total control, pollution charges (environmental taxes), permits and other systems are effectively linked to establish a unique fixed pollution source information directory database, uniform coding management of pollution sources, integrate and share information on pollution sources and effectively promote collaborative governance.

Predictably, the Oases ecological system of "distributed one book account" and "distributed one card " will provide practical solutions for environmental assessment and pollution management to promote the transformation of ecological environment big data.



（5）Build distributed environment data platform as a whole

At present, "12369 complaint system", "sewage reporting charging system", "pollution emergency command and control system", "motor vehicle exhaust monitoring system", "on-line monitoring system for pollution sources", "air quality monitoring system", "hazardous solid waste management system", "nuclear and radiation management system" and other various business system can perform business functions such as business approval, opinion collection, task assignment, pollutant discharge declaration and charge. The main problem is that these systems are independent, and data cannot be effectively shared and integrated, leading to redundancy and inconsistency of similar data in different systems. At the same time, there is no unified data management mode among these systems, which leads to irregular and incomplete data storage.

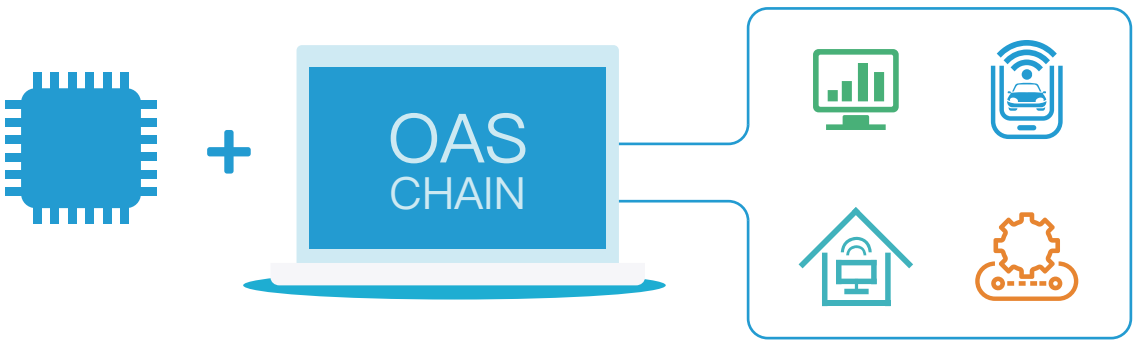
Although each system can play its own role, dealing with its own business functions, but the redundant, inconsistent and missing of the data can cause data cannot be integrated effectively in each system, global data application, processing and analysis capabilities cannot be supported, data is clearly available but cannot be found and cannot be used. The Oases ecosystem will solve the problem of data integration of various systems and realize data sharing, analysis and use in a global scope.

（6）Introduce block chain + chip technology, strengthen information security

Facing more and more complex scenarios, devices, computing methods, networks, digital trust needs to be established urgently and information security faces significant challenges. The complex ecology in the digital age puts forward higher requirements for the establishment and maintenance of trust relations, the large amount of privacy and interactive data generated by intelligent and mobile devices aggravates the vulnerability of information security attack. Environmental big data uses cloud storage or third-party platforms to input too much data, creating complex ecosystems, and will also face the danger of out of control, threats and abnormal connections.

With the deepening of the information age, chips have gradually become the core of information products in various fields, from communication satellites to mobile phones, identity cards, bank cards, cars, Internet of things devices, etc. In the digital age, the loss and disclosure of information can become a hidden danger to the personal, social and even national security at any time. The most important thing to ensure information security is to ensure the security of the core chip of information products. At present, the security chip industry has been listed as one of the national information security strategies, under the strong promotion of the policy, a large number of security chips have emerged in the market for different fields and even different business scenarios.

Addressing the growing security needs, Oases ecological system will base on the block + chip areas, expand the smart home, car networking, industrial control and other areas to ensure the correctness and validity of data and meet the requirement of security function.



RELEASE PLAN

Oases Token

Oases Token total amount: 20,000,000,000 coins, Specific distribution scheme:

No.	Scheme/content	Ratio	Quantity	State
1	Participative incentives	50.00%	10,000,000,000	Incentives for node participation, release 5% at first year, the incentive halved after cumulative release half
2	Institutional investment	25.00%	5,000,000,000	Including but not limited to development, marketing, finance, legal advice, etc
3	Community incentives	5.00%	1,000,000,000	Maintaining community development
4	Ecological construction	5.00%	1,000,000,000	support the implementation of network ecological applications
5	Business development	5.00%	1,000,000,000	Individuals, enterprises or institutions that promote Oases;
6	Team incentives	10.00%	2,000,000,000	Motivate the founding team, operation team and technical team;
7	Total	100.00%	20,000,000,000	

NOTE: OASES TOKEN COLLECTION OBJECT IN OASES CHAIN IS ONLY FOR INSTITUTIONS.

Oases Token team introduction

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OASES CTO
Joint initiator of the OASES Project

Zeng Lin Chuan (Bruce)

OASES Research Consultant

Oases Token team introduction

Matthias Lund Larsen

OASES Scientific Consultant

Fu Yang Fan (Frank)

OASES China Strategic Partner

Oases Investment Agency

PENTA

MINERCHINA

GENTRY CAPITAL
名仕资本

合祯科技

BITLITE

JOYTECH
玖 翼 科 技

EPT
Environmental
Protection Technology

Oases Investor

Yao Nan Jiang

OASES Investor

Bin Cheng

OASES Investor

Oases Investor

Fang Xu Chu (Chong Ge)

OASES Investor

Oa


万点财经
WANDIAN FINANCE


币搜索
COINSOUSUO.COM


挖链网
walian.cn


chainbus
区块链巴士
ChainBus

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OASES ECOSYSTEM INTRODUCTION

Oases Chain, jointly launched by the U.S EPC Foundation and the Singapore Oases Foundation, is the first comprehensive system using blockchain technology in the world to promote the development of environmental protection, to reduce environmental pollution, manage energy and monitor emissions (hereinafter referred to as Oases ecosystem).

Oases imply countless oasis. In this layer of meaning, the Oases ecosystem is committed to use block chain distributed technology to build a beautiful oasis in every community that is struggling with environmental problems such as pollution and emissions, and bring distributed energy management technology to our ordinary people to make a contribute to the construction of green ecological community.

Similarly, with the help of block chain technology and based on Internet , Oases system can provide better solutions to various major environmental problems, help the general public improve their environmental habits, build awareness of energy conservation, reduce the "three wastes" emissions of enterprises, improve the efficiency of waste recycling, and is capable of comprehensive monitoring and analysis of all known and valuable energy use, resource recycling, waste recycling, and important data on global ecological change.

The Oases ecosystem takes connecting and transforming all energy as its mission. As part of nature, with the help Oases system, natural ecology and human society will be reintegrated, a world in which all things are one will be realized. Mankind will have a better tomorrow.