



# Healthcare

# Wellness



Whitepaper  
2018.04

**Customized concierge service for the  
global medical tourist utilizing cross  
border service ecosystem**

[www.clzhealth.com](http://www.clzhealth.com)

## Summary

The purpose of this white paper is to describe a cross-border service ecosystem with customized concierge services for high-net-worth population. Creating blockchains in the healthcare and wellness sectors to enable a cross-border service ecosystem. Provide reliable, high security, and high-quality services solving the pain points for high-net-worth individuals and service organizations in related cross-border areas, while realizing CLZ 's vision.

Cross-border medical and health markets are large and continue growing. According to the American Stanford Research Institute data, 2017 global medical tourism will reach US\$67.85 billion in 2016. The Economist data research shows that by 2020 healthcare spending in major regions of the world is expected to reach US\$8.7 trillion. However, traditional service methods have pain points: such as unavailability of information; difficulty in ensuring security; privacy of consumer information; and costly, cumbersome complex processes. Causing inconvenience to consumers and severely constraining the development and use of the entire ecosystem. CLZ combines blockchain technology and existing resources to provide privacy protection for high-net-worth customers in healthcare and wellness. This increases the efficiency for service organizations and establishes a trustworthy and safe information exchange that enables high-net-worth customers to enjoy customized “white glove” services in the CLZ ecosystem: services such as cancer detection; genetic testing; translation; commercial surrogacy; and legal organ transplant services. By effectively resolving the pain points of the current service model, CLZ will stimulate and revitalize the market.

This article proposes a feasible CLZ design and model that solves the existing pain points using a combination of blockchain and cryptography technology as illustrated by specific application scenarios. Lastly, we introduce our experienced international team and the project implementation roadmap, as well as the CLZ release plan and ecosystem development plan.

## Terminology

**CLZ:** CLZ is the only circulation token in the CLZ Ecosystem. It is a decentralized blockchain digital asset based on the standard token of the Ethereum blockchain ERC20.

**Digital ID:** Digital ID is a decentralized identity identification protocol with decentralized, autonomous management, privacy protection, and ease of use.

**Smart contracts:** Event-driven, state-of-the-art, multi-admitting, running on blockchains, and capable of automatically processing assets based on pre-set conditions. The greatest advantage of smart contracts is the use of program algorithms, instead of relying on people, to automatically execute and implement certain terms of the smart contract.

**Smart oracle:** Smart oracle (the Smart Oracle) provides a simple, flexible implementation intelligent contracts (smart contract) method, translating business logic, legal and other agreed rules into code.

**Legal surrogacy:** In countries where the law allows, commercial surrogacy is carried out according to each such law.

**Legal Transplantation services:** In countries where the law allows, medical services to transplant organs according to each such law.

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## **1. Vision and mission**

**Vision:** Premier cross-border concierge services exchange for the well-heeled traveler

**Mission:** Build the best healthcare and wellness cross-border services ecosystem. Providing privacy, reliability and high quality services

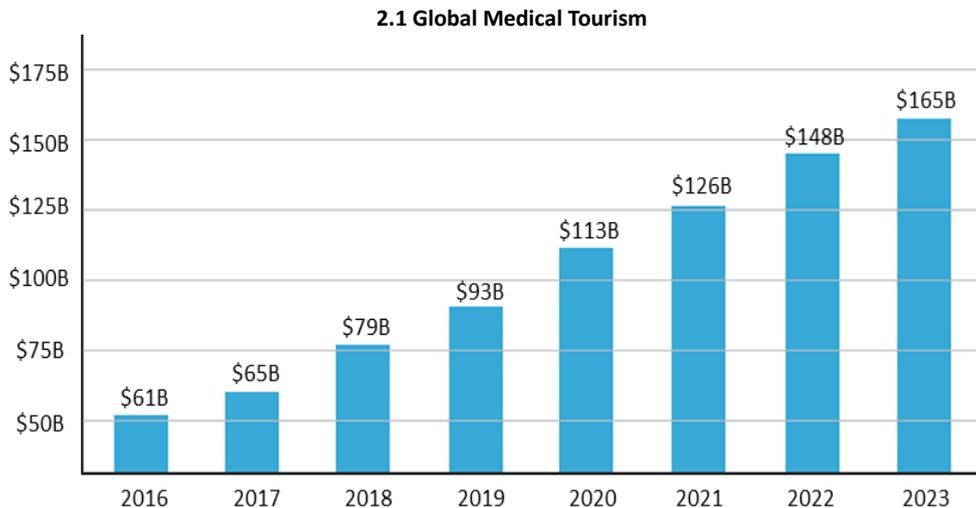
## 2. Background analysis

### 2.1. Global market analysis

#### Cross-border Medical Market Analysis

The traditional term “cross-border medical treatment”, also known as “seeking medical treatment abroad” or medical tourism, refers to people seeking more appropriate health care services in foreign countries because the desired medical services where they live are too expensive, unavailable or lack adequate quality.

According to the joint market research (Allied Market Research) publication entitled "Treatment of Class Medical Tourism Market: 2017-2023 Global Opportunities Analysis and Forecasts," in 2016, the global medical tourism market was valued at US\$61.17 billion and is expected to reach US\$165.35 billion in 2023. From 2017 to 2023, the compound annual growth rate (CAGR) will be 15.0%. During the entire forecast period, North America is expected to be the largest revenue



Allied Market Research, Medical Tourism Market, August 2017

contributor.

It is expected that the increase in the incidence of cancer and other serious diseases will boost people's demand for medical services, which in turn will promote

the development of the medical tourism market. In addition, neurological disease treatment is expected to be the fastest growing type of treatment due to an increase in the prevalence of neurological diseases and an increase in the global elderly population, with a CAGR of 15.5% from 2017 to 2023.

The current market is dominated by North America and the Asia-Pacific region. They accounted for 63.6% of the entire medical tourism market in 2016. The increase in these areas was attributed to the availability of affordable medical services for several diseases in countries such as Mexico, Thailand, Malaysia, India and Singapore. However, due to the success rate of treatment and the affordable price range, the Asia-Pacific region is the fastest-growing region outside Latin America.

The main findings of the medical tourism market research are:

1. In 2016, cancer treatment generated the highest revenue, accounting for about one-third of the total market revenue, and it is expected to continue to grow at a compound annual growth rate of 15.3% during the forecast period.
2. Due to the increase of skilled medical personnel in this field, neurological treatment is expected to be higher than the average compound annual growth rate of 15.5%.
3. North America accounted for one-third of the global medical tourism market in 2016.
4. During the period of analysis, the Asia Pacific region is expected to be the fastest growing medical tourism market, followed by South America, the Middle East and Africa. Thailand and Singapore are the major markets in the Asia Pacific region.

According to data from Stanford Research Institute, it is estimated that the revenue of global wellness tourism in 2017 will reach US\$678.5 billion. In 2013, the revenue was US\$438.6 billion. At the same time, the growth rate of global medical tourism is twice the growth rate of tourism. It is estimated that in 2017, the global medical tourism revenue will account for 16% of the world's total tourism revenue. In 2013,

## 2.2 Stanford Global Wellness Tourism Income Study



the proportion was 14%.

## 2.3 Advantages of Medical Projects Worldwide

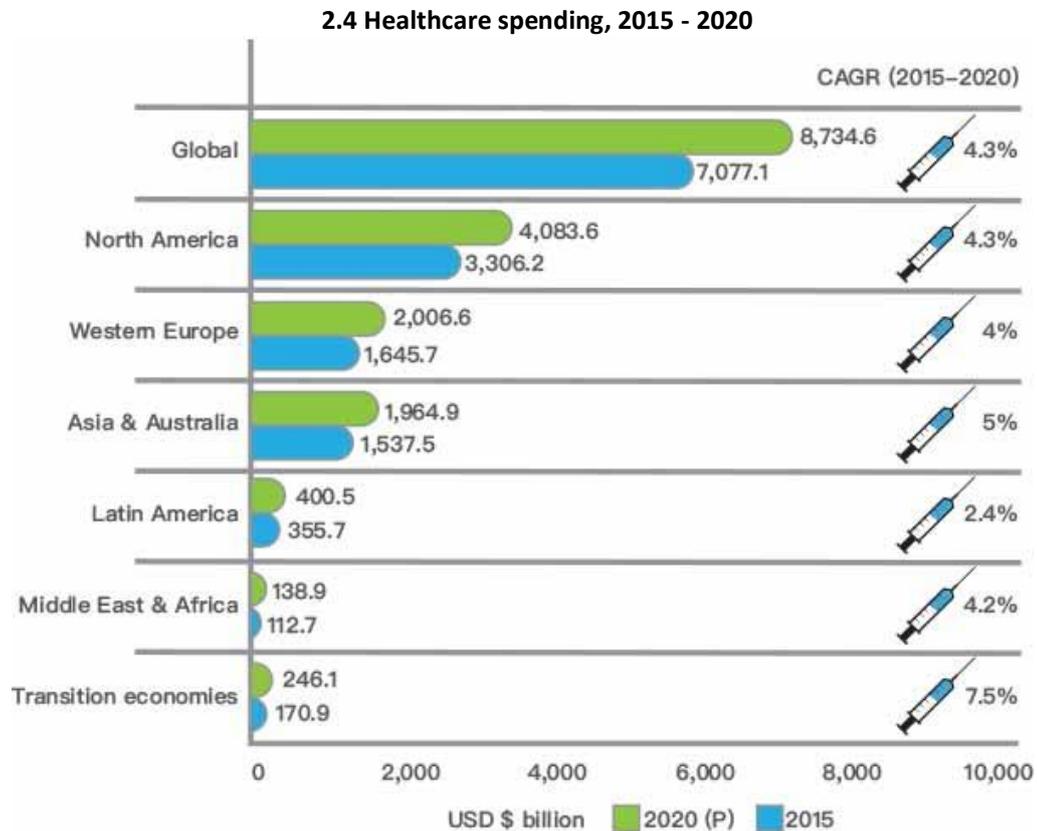


With the development of the world economy, the development of tourism, the aging of the population, and the diversification of overseas medical technology development, the global cross-border medical market is large and rapidly developing in view of the world's mobility.

### Cross-border Preventive Health Care Market Analysis

Cross-border preventive health care measures are for residents to go abroad for professional health checkups to prevent diseases and improve their health.

The Economist Intelligence Unit data study shows that by 2020, healthcare spending in major regions of the world is expected to reach US\$8.7 trillion, which is higher than the US\$7 trillion in 2015.



Source: World Industry Outlook, Healthcare and Pharmaceuticals, The Economic Intelligence Unit, June 2017

Deloitte noted that global medical service consumption will increase by 4.1% annually from 2017 to 2021, while only increasing by 1.3% per year from 2012 to 2016. As the population gradually ages and increases, the market continues to expand, medical conditions continue to improve, and labor costs continue to increase. These factors will all contribute to market expansion. The estimated amount of each person's medical service consumption will change significantly every year. In the year 2021, it is estimated that the United States will consume US\$11,356 per person per year. It is also expected that the life expectancy from 2016 to 2021 will increase by more than one year, from 73 to 74.1. The population over the age of 65 will exceed 656 million people, accounting for 11.5 % of the total population.

## 2.2. Market Pain Point Analysis

### Customer Pain Points

Intermediaries charge high fees and customers often become victims of unethical intermediaries who often have no knowledge, expertise or information regarding the availability, quality, and cost of foreign medical services. In 2016, tens of thousands of Chinese citizens paid surcharges of hundreds of thousands of dollars to surrogates in China. In 2016, there are more

2.5 Comparison of Cancer Screening Prices

		Japan Clinic Price	Publish Price
Sakakibara Heart Institute	JPY	¥ 138,000	¥ 426,000
	RMB	¥ 8,239	¥ 25,433
Musashino Tokushukai Hospital	JPY	¥ 55,000	¥ 400,000
	RMB	¥ 3,284	¥ 23,881
Tokyo Bay Advanced Medicine Makuhari Clinic	JPY	¥ 160,000	¥ 422,000
	RMB	¥ 9,552	¥ 25,194
Nippon Medical School Health Exam Center	JPY	¥ 162,800	¥ 307,000
	RMB	¥ 9,719	¥ 18,328
Nishidai Clinic Imaging and Diagnostic Center	JPY	¥ 145,000	¥ 382,500
	RMB	¥ 8,657	¥ 22,836

than 1,500 Chinese couples that sought commercial surrogacy services in the United States (commercial surrogacy is legal in certain states within the United States) and paid at least 2 times the fees paid by US citizens. In addition, although the sales of organs are illegal all over the world, it is believed that thousands of people who need organs pay huge sums in the “black market” to obtain them. However, laws in Singapore, Australia, and Iran permit certain economic compensation for organ donors, and China provides financial compensation for families who donate organs from their brain dead relatives.

Consumers often do not have access to high-quality local services, so they travel to other countries to obtain them and forfeit the protection and benefits of their own national health systems, insurance coverage and laws. High fees are often paid but no matching service is available. In 2016, more than 100,000 Chinese nationals traveled to Japan to obtain PET-CT cancer screening, but these Chinese consumers paid screening fees multiple times more than those paid by Japanese locals. In 2016, more than 500,000 Chinese tourists traveled abroad to seek medical care. There are many Chinese consumers who pay 2 times or more of the fees and costs to obtain medical services than those amounts paid by local consumers in the countries visited.

Inadequate customer privacy protection. In 2017, the number of global data breaches showed an explosive growth, and the industries involved were also more extensive. According to Verizon's 2017 Data Loss Investigation Report, the financial industry still bears the brunt, 24% of data leakage incidents are related to financial

institutions, followed by the healthcare industry 15%. In recent years, electronic medical records, cloud services at hospitals, and remote medical consultations have been vigorously carried out in the medical field. Patient information, medical records, etc. have also been converted from paper to electronic versions. Through new medical models such as internet medical care and remote medical consultation, hospitals have the data on the network go to the public network, so security problems follow.

In summary, there are the following pain points for customers:

1. The inefficiency of the business model of traditional intermediaries results in wasted time, while customers pay high fees but do not receive services matching the corresponding fees.
2. Overseas healthcare and wellness resources lack transparency, there are cultural and language barriers, information is often incorrect, etc. It is difficult to establish a legal trusted relationship with customers.
3. Customer privacy cannot be well protected and there is a risk of leakage.
4. The cross-border payment process is complicated and lacks effective protection.

## 2.6 Traditional market pain point analysis

Pain Point	Analysis
Low ratio of effective expenditure	Large percentage of the fees go to intermediaries
Long and complex process	Takes long and it is complex to establish trusted relationship
Lack of privacy protection	User privacy is not maintained and process is difficult to audit
Complex cost settlement process	Payment settlement is complex and lacks transparency across borders and multiple parties

## Service Pain Points

The world is lagging behind in the management and provision of medical services. Inefficiencies and bureaucracy have hindered certain medical professionals from exercising their ability to properly manage their patients and provide them with immediate medical services. At the same time, it is influenced by laws and other factors, which greatly prolongs the treatment time of customers and affects the efficiency of the organization.

### 2.7 Legal Surrogate Flow Chart



Institutions cannot establish trust with customers, and their sources often rely on third-party agencies. High intermediary fees can easily lead to the loss of potential customers. In 2016, more than 52% of Japan's tourism traffic was from from China. Only a small fraction (< 1%) of the 12 million Chinese tourists who visited Japan enjoyed these advanced cancer screening services during their visit.

### 3. The CLZ Model

#### 3.1. The CLZ Solution

CLZ provides information services through a trustworthy and safe exchange for use by high net worth customers to obtain healthcare and wellness services. The CLZ information exchange enables providers of services to advertise, promote and make their healthcare and wellness services available to these high net worth customers.



In the CLZ ecosystem, every leading company and customer can obtain accurate and current overseas information services in a confident, relaxed and transparent manner. In the CLZ ecosystem, customers avoid the complex process of cross-border payments by using the unique circulation token CLZ; streamline processes through blockchain and smart contracts, reduce mediation time and cost, while keeping records for surveillance review; privacy protection, Digital ID and other technologies protect consumer privacy. Effectively solving the pain points faced by the market.

#### Introduction to CLZ

CLZ is a non-blocking token for cross border healthcare and wellness in the CLZ ecosystem. It is the only currency token in the CLZ ecosystem.

CLZ has a large number of experts and partners in the healthcare and wellness fields. CLZ has a wealth of high-net-worth customer resources and at the same time providing high-quality services to many customers.

CLZ provides high-net-worth users with cross-border service ecosystem with customized “white glove” services, and at the same time solves the pain points in the

cross-border healthcare and wellness fields for consumers and service organizations.

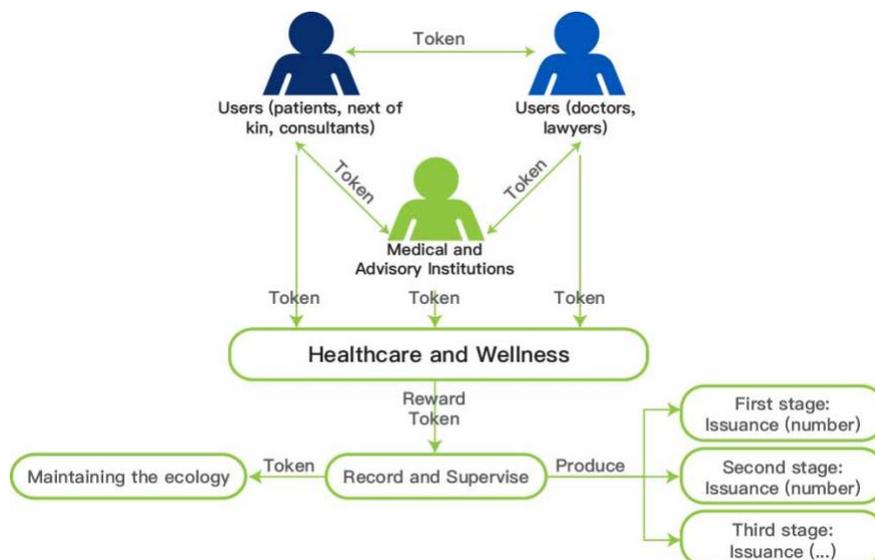
Some of the benefits of CLZ will be used as Token rewards, ecosystem preservation, medical research development and charity.

### 3.2. CLZ Circulation

CLZ can be used to participate in transaction payments in the healthcare and wellness sectors of the CLZ ecosystem. It is the only payment method in the CLZ ecosystem. At the same time, CLZ will be issued in stages based on demand, to ensure circulation, value and market development.

CLZ Eco adopts the membership model for circulation and members use CLZ to enjoy the quality services provided by the ecology.

#### 3.2 CLZ Circulation Diagram

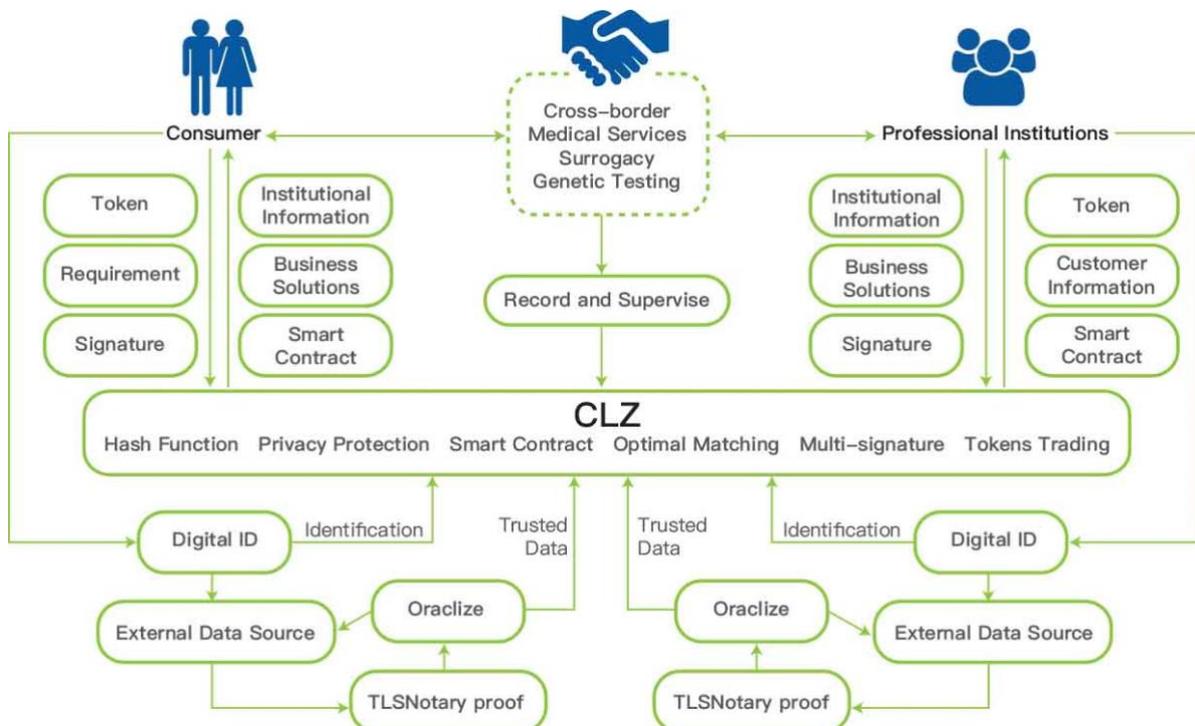


## 4. Technical Architecture

### 4.1. Distributed Ledger

The CLZ architecture layer below provides a complete blockchain system, including complete distributed ledgers, smart contracts, digital IDs, smart oracles, multiple signatures, and more. At the same time, CLZ modularized the underlying complex technical systems, supported and compatible with all major protocol and password standards at the current stage, and realized the management and multidimensional authentication of distributed entities (people, institutions, and objects). CLZ also provides technical systems such as secure data storage, hardware key management, and encrypted data analysis. The entire CLZ as a blockchain can support the construction of different application scenarios, especially decentralized application scenarios. On this basis, CLZ provides a series of application frameworks, including distributed data exchange protocols, distributed process management protocols, etc., and further supports the implementation of various types of upper-level

#### 4.1 CLZ Technology Architecture



applications through APIs, SDKs, and various application function components provided by CLZ. CLZ adopts a DAICO token issuing model that is

different from the traditional ICO model to keep investors and businesses whole.

## 4.2. Core technology

### **Distributed Ledger**

Distributed ledgers are an important infrastructure for the underlying storage of CLZ Trust Networks. The characteristics of decentralized, irrevocable, and common billing of distributed ledger technology are the key to the realization of distributed multi-party trust in CLZ trust networks. In CLZ, the use of distributed ledger technology is further expanded in the following areas:

#### **Entity registration and identification entity**

Entity registration and identification are CLZ important basic module, CLZ design registration, authentication and authorization system multifaceted, multi-level participants and related resources. The entity identity and authorization module design provide a multi-level identity authentication and authorization system. Through the flexible configuration of integrated own authorization services or third-party authentication mechanisms (such as CA certification), it is possible to carry out community-based authentication of various types of accounts. Differing auditing mechanisms can be integrated according to different business scenarios. Blockchain participates in node-based and participant-based systematic authentication and authorization.

#### **Data Exchange**

The use of distributed ledger technology can realize a data exchange framework based on entities (people, things, equipment, content...), revitalize personal data assets, make data circulate, and use standardized protocol designs to support data discovery and authorization. With transactions, it helps users to control the data with fine-grained granularity, and for the user's own privacy needs, the benefits of data reuse for the user.

#### **Behavior verification**

Through the use of distributed ledgers, it will not only provide data for evidence,

but also support behavioral evidence. That is, each data request, data matching, data retrieval, and data usage are recorded in the account book, forming a record of the entire process of the data, ensuring that the data is safe, reliable, and not leaked.

Through distributed ledger technology, CLZ ecological data and transactions can be guaranteed safe and credible, which is the cornerstone of CLZ ecological operation.

## **Smart Contract**

Smart Contracts are event-driven, state-of-the-art, multi-admitting, and blockchain operations that can automatically process assets based on pre-defined conditions. It is the use of program algorithms to replace people-dependent arbitration and enforcement contracts. The smart contract is deployed on a block of the blockchain. When external data and events are input to the smart contract, the corresponding action is output according to internal preset response conditions and rules, and the result is recorded in the block. In essence, smart contracts are also a piece of program, but unlike traditional IT systems, smart contracts inherit the three characteristics of the blockchain: data is transparent, cannot be tampered with, and runs permanently.

On the CLZ blockchain, smart contracts such as data storage control and transaction information are executed. Smart contracts for the distribution, transfer, purchase, addition, and removal of assets. Trade payment smart contracts and a series of smart contracts that help the orderly operation of the CLZ. The smart contract is the code deployed in the blockchain. The blockchain itself cannot execute code. The execution of the code is that each node is implemented locally through the Ethereum virtual machine.

In CLZ, customers' healthcare, wellness and other information are stored in the data layer of the CLZ chain. Data is mapped from the data layer to the contract layer to be automatically responded by smart contracts to perform a series of operations in the CLZ.

## **Digital ID**

Entity refers to the real world of a Face, organization, goods (mobile phones, IOT equipment, etc.), identity refers to entities which are identified on the network. The CLZ uses the CLZ identity identification to identify and manage the

entity's network identity. On the CLZ, an entity can correspond to multiple identities without any association between multiple identities.

A fusion of diversity, distributed, real-time protection of data privacy and extensible entity identity verification system is one of the CLZ core protocols of the trust network, which supports the CLZ trusted network entities, including various types of people, organizations and goods Distributed and diverse identification and certification.

### **Identity and multidimensional authentication**

The CLZ identity uses a distributed digital identity scheme. The digital identity itself is not related to a specific business. Its use is defined by the actual application scenario. In the digital identity scheme, each entity (person, object, institution) identity can have a series of distributed trust sources, so as to select different authentication methods in different scenarios.

### **Identity entities and identities**

In the CLZ, an entity (person, institution, object) can correspond to a digital identity, but different specific identifications based on the CLZ digital identity can be generated in different application scenarios. Prior to authorization by the identity entity licensor, any third party cannot deduce from the identity used by the entity in a network system that the identity it used in another system. Separating the operations of entities in different systems through different identities can greatly protect privacy security and rights of identity information.

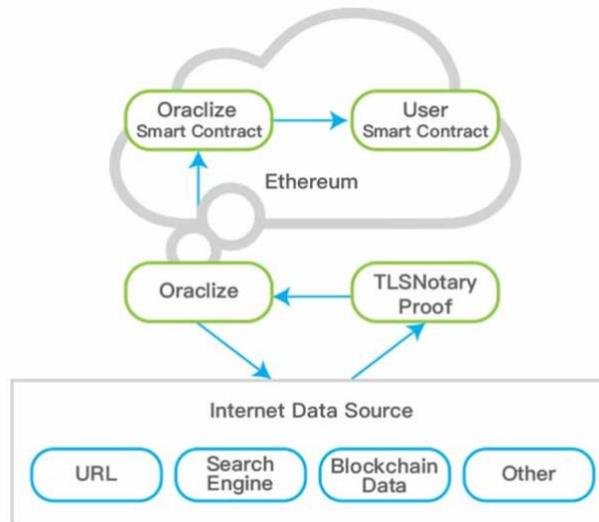
### **Oraclize and Trusted Proof Technology**

In the CLZ ecosystem, the interaction between the chain and external data is required, and the external data can be trusted and quickly interacted with the chain via Oraclize. At the same time, based on smart contracts, CLZ is playing a greater ecological role.

In the blockchain system, external data sources (data feeds) as third parties are sent to the blockchain and information data specified by the smart contract, and since the data transmitter is a centralized participant, it cannot be taken for granted. Think smart contracts can go directly to the relevant external data. Oraclize blockchains link

external world solutions and tailored for Ethereum applications.

#### 4.2 Oraclize Schematic



Oraclize deploys a smart contract name using Oraclize on Ethereum. If it needs its data access service, it only needs to reference the smart contract in its own smart contract, and then make related calls according to the method described in the API document. If some organizations use Ethereum technology to build their own private or federated chain, Oraclize provides open source smart contract code for data services on Github that, when deployed by itself, can be invoked like a public chain. Oraclize provides a variety of data source servers, including URL access, data search engines, blockchain content data, IPFS file access, etc., where URL access and blockchain content data provide a trusted proof technology based on TLSNotary, is also common data access requirements.

TLSNotary proves that it can verify the correct information of the incoming chain data. Combined with Oraclize, it can guarantee the security and reliability of the data in the chain.

TLSNotary certification is mainly based on the security transport layer protocol TLS1.1, TLS is used to provide confidentiality and data integrity between two communication applications. The greatest advantage lies in the independence of the application protocol. Higher layer protocols can be transparently distributed over the TLS protocol. TLS includes three basic phases: (1) The key algorithm supported by peer-to-peer negotiation; (2) The public key based on private key encryption and

exchange, and the identity authentication based on PKI certificate; (3) The confidential data transmission based on public key encryption. Throughout transmission, the TLS the master key can be divided into three parts: the server side, and auditee auditing party. Throughout the process, the Internet data source acts as the server side, Oraclize acts as the auditee, and a specially designed, open source instance deployed on the Amazon Cloud serves as the auditor. Everyone can use this auditor's service to provide data that Oraclize used to provide in the past. Conduct reviews and inspections to ensure data integrity and security.

Based on Oraclize and trustworthy proof technologies, blockchains can react to the outside world through smart contracts. Through the prediction machine, it can timely supervise and supervise cross-border healthcare and wellness offline processes, and make corresponding deployments through smart contracts, saving time and costs and protecting the common interests of all parties.

## **Intelligent Oracle**

In the complex case of CLZ, oracles are often difficult to deal with many situations. Intelligent oracles can be translated into code by business logic, laws, and other agreed rules to improve the ease of use and scalability of CLZ Ecology. Improve business efficiency in the CLZ ecosystem.

Smart oracle (the Smart Oracle) provides a simple, flexible implementation of smart contract (smart contract) method, translating business logic, legal and other agreed rules into code. The intelligent oracle is built on the idea of a prophetic machine, or an entity that provides intelligent external contracts with real world information. In such a system, the rules can be translated into code by any programming language, and the contract can interact with any service that receives cryptographically signed commands. This includes, but is not limited to, cryptocurrency networks. We have introduced a smart oracle called Codius (code-law, in Latin, "ius " stands for law), using Google's Native Client as a code sandbox.

In the CLZ ecosystem, smart oracles are trusted or semi-trusted entities that can provide information about the outside world and can execute code that is agreed upon by contract participants.

## **Multi-signature**

Multi-signature is a technique that allows multiple public keys to sign a transaction together. Digital signature is one of the most important applications of the public key cryptosystem. It can verify the authenticity of the information sender's identity and information.

Sometimes multiple users need the same message signature, in reality this situation sometimes requires a fixed order, sometimes without regard to order. In CLZ, multiple signatures can be used to supervise the entire medical process, and finally use smart contracts to complete treatment assessments and transaction payments. Verify the signature order. If the order is correct, continue to verify the validity of the signature.

CLZ's multi-signature can guarantee the transaction security of customers under multiple scenarios, such as the customer's appointment in the medical process, customer hospitalization, customer treatment, customer review, and final payment, to ensure the orderly progress of the medical process.

## **5. Application scenarios**

### **5.1. Scenario overview**

We will build a decentralized ecosystem that provides high-net-worth individuals with privacy, security, reliable services, and high-quality in the fields of healthcare and wellness.

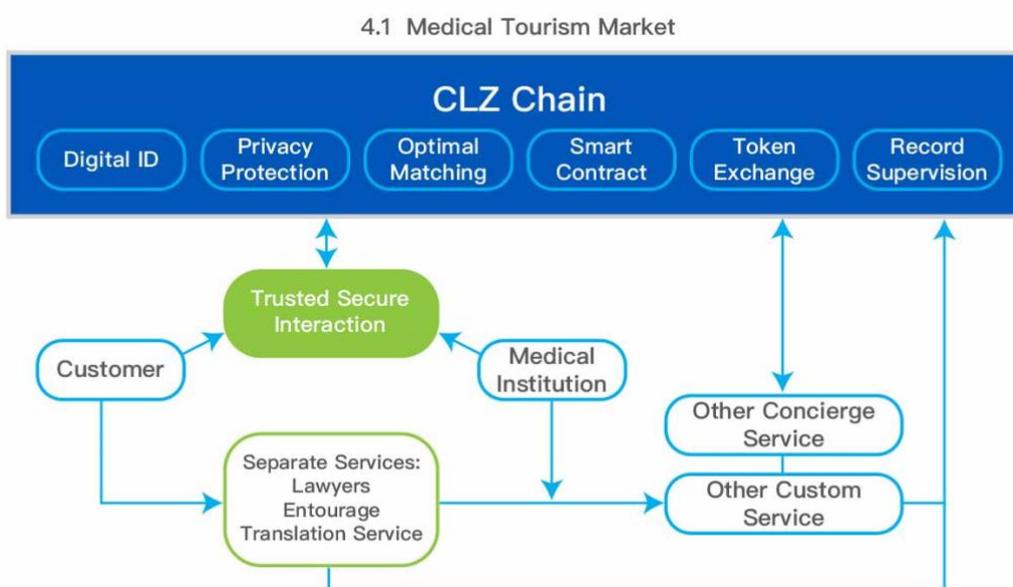
The ecosystem is based on blockchain technology to build CLZ ; Hash function, multi-signature related cryptography means to ensure the security of private information; through the digital ID to ensure that personal privacy information is not disclosed in the transmission process; the use of smart contracts, intelligent oracles to ensure payment security and off chain verification; combined with technologies such as medical and big data to promote the construction of application ecology; and through CLZ Token to realize the connection of value ecology.

In the medical field, we have sufficient funds to hire high-quality, high-level medical information services staff and build a good medical information services environment to maximize the success rate of medical treatment. We commit never to disclose confidential information, fully protect customer privacy, and provide absolutely safe and reliable services. In the medical process, we will supervise the medical process in real time, effectively certify doctors, and ensure the safety of medical supplies such as medicines and equipment.

In the health field, we provide information services for cancer screening, health consultation, disease warning, and endowment insurance to fully provide security for our customers. We will partner with medical service providers to establish customer personal health records, conduct follow-up investigations and real-time feedback, and provide safe, reliable and high-quality information service guarantees.

## 5.2. Medical scenarios

Medical scenarios include cross-border medical treatment, legal surrogacy and



legal organ transplantation.

1. Customers and medical institutions complete trusted, secure information exchanges at CLZ, identify high-end customized medical solutions, and customers

inject tokens.

2. Customers contact professional lawyers offline; transfer to professional service team after landing; process record feedback in CLZ Ecology.

3. The customer actually participates in the medical institution's medical process. The CLZ ecological supervision records the medical process; the customer is also free to choose to participate in other high-end trusted services on other CLZs.

4. After the completion of treatment, the results of the inspection and evaluation are recorded in the CLZ, and the smart contract completes the final Token payment.

## **Cross-border Medical Treatment**

When choosing cross-border medical care, consumers will use the time and needs specific to themselves, then based on the data sharing of the nodes on the blockchain, they select a medical institution with sufficient resources in their corresponding time. Reduce cumbersome procedures for intermediaries and cross-border payments to optimize to their needs.

The customer communicates directly with the medical institution and the medical institution obtains relevant data according to the customer's authorization, formulates a reasonable treatment plan, and generates a digital signature for certification. After customers arrive overseas, they can complete the certification by digital signature. At the same time, in resources, we ensure that our customers can choose the most suitable medical institution, the best medical staff, and the safest medical supplies. The use of multi-signature technology ensures the authenticity of relevant personnel and resources; through the indispensable modification of data and the corresponding evaluation system, it ensures the trustworthiness of medical institutions. At the same time to ensure the treatment of the process and efficiency. Finally, the result of the treatment completed by the smart oracle is feedback and the final payment.

## Commercial Surrogacy

Customers can get reliable and safe legal commercial surrogacy in the CLZ ecosystem, and these services are usually difficult to obtain and secure in their home country.

### 5.2 CLZ Application Scenario



Similar to cross-border health care, CLZ protects the privacy of clients, surrogates, and related physicians, supervises surrogacy procedures, and increases process reliability. CLZ provides clients with the highest success rate and the most suitable surrogate, generating digital signatures and signing smart contracts to provide guarantees for payment. At the same time, through medical insurance, the common interests of the three parties are protected. It also generates a unique digital signature for newborn babies, provides genetic testing, health monitoring, etc. (data is encrypted), ensures the healthy growth of newborns, and establishes a healthy growing medical system from birth.

## Ethical and Legal Organ Transplantation

Customers can legally obtain legitimate organ transplant services, which are often difficult to obtain and secure in their home country.

On the basis of the basic structure of cross-border medical care, the legitimacy of organs is verified, the source of protection is guaranteed, and organs are available. Based on the ability of blockchains to share data, the most appropriate demanders and corresponding doctors are obtained through intelligent calculation matching, and at the same time the privacy of all parties is guaranteed. By reducing the waste of intermediate time, reducing cost, providing post-operative tracking

### 5.3 CLZ Application Scenario



feedback, we can provide customers with the safest and most reliable organ transplantation services.

CLZ aims to assist and save 10,000 patient lives each year. Once the CLZ ecology is established, we will increase and positively impact more lives worldwide.

### 5.3. Preventive Healthcare

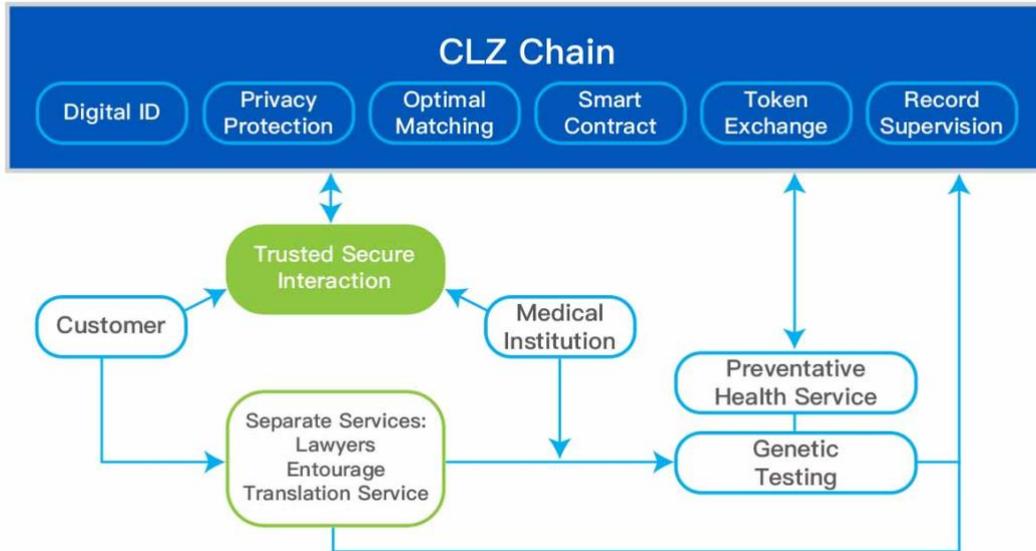
CLZ Medical Partners' facilities provide the most complete, integrated and tailor-made plans to improve the health and well-being of our customers. Through the assessment and adjustment of the risk of future diseases, to provide information to allow customers to live longer. From the CLZ basic package to the most comprehensive package, CLZ will work together to provide a happy life for customers and their families.

In CLZ Ecology, preventive medicine experts will provide patients with the latest, most complete and fastest services; within one day, clinical medical experts will perform professional and personalized physical examinations and comprehensive evaluations of patients (about 6-7 hours). Develop a special health plan for the patient and obtain the results of the physical examination; achieve the goal of preventing disease and maintaining optimal health. There are follow-up wellness and testing programs, which can be combined with the results of physical examination as necessary to carry out a new year-long cooperation plan to continue to protect the

health of patients.

## Genetic Testing

### 4.4 Cross-border Genetic Testing



The genetic testing process is as follows:

1. Customers and medical institutions complete trusted and secure information exchange on the CLZ chain, identify genetic testing solutions, and customers inject tokens.

2. After contact with a professional service team such as a translator and the customer's location, complete the identification of the identity and confirmation of the genetic testing program; the process is recorded on the CLZ chain and supervised and confirmed.

3. The customer starts the implementation of the genetic testing program under the leadership of the service organization. The CLZ chain supervises the recording process and results.

4. Results feedback and payment confirmation after the test is completed.

Preventive care also includes cancer screening, heart disease detection, stroke testing, and health consultants.

## **Cancer Screening**

CLZ Ecology provides customers with overseas testing services often of higher quality and reliability than those available in their home country. Utilizing comprehensive set of early cancer screening procedures to provide multiple levels of integrated dual verification, PET-CT scans, magnetic resonance scans and immune group diagnostics. Detailed inspections, conclusive health advice, and post-treatment services. To ensure the security of customers' personal privacy and test results; and to ensure the correctness of the detection process and test results through multi-signature technology and data modification. According to customer's individual needs, customers can customize purchase, select and obtain the best medical services to help customers make the best decisions.

## **Heart Disease Screening**

CLZ Ecosystem collaborates with top medical institutions worldwide, including University of Southern California Keck Medicine, New York University Langone Medical Center, Princeton Longevity Center in the United States, including thousands of facilities in Japan and Taiwan. Providing basic examinations including: height, weight, BMI, blood pressure, vision, intraocular pressure, hearing, lung function, internal medicine, and consultation.

Comprehensive blood tests include : Comprehensive Cholesterol, HDL Cholesterol, LDL Cholesterol, Neutral Fat, AST (GOT) , ALT (GPT), Synthetic Protein, Albumin, Synthetic Heme, LDH , ALP (Alkaline Phosphatase), Amylase , fasting blood glucose, hemoglobin ALC , creatinine, uric acid, erythrocyte count, leukocyte count, hemoglobin, hematocrit, platelet count, the MCV , the MCH , MCHC , serum iron, high-sensitivity C -reactive protein, B hepatitis antibody assay (-HBs antigen) C hepatitis antibody assay (of HCV antibody) and the like; urine analysis will ultrasound examination X-ray endoscopic tumor marker ECG X-ray CT examination. Each process will be recorded on the CLZ blockchain, protecting customer privacy while ensuring the accuracy of the diagnosis.

## **Stroke Detection and Prevention**

CLZ cooperates with the top institutions in the world, including New York University, Princeton Longevity, University of Southern California and Hospital in

Tokyo. Private customized services can be provided according to the needs of the guests, so that high-net-worth people can enjoy better and more intimate services, and through the CLZ ecological protection of customer privacy and record supervision.

## **Health Consultation**

Customers can upload personal health test information, seek professional doctors to provide health advice through CLZ, and get high-quality health care solutions. At the same time, based on a certain system of rewards and penalties, we encourage customers to authorize multiple trusted medical nodes to analyze some non-private information, make available medical and health data to verify each other, help customers better understand their own health conditions, and provide services to other customers and medical institutions. Reference, sharing and win-win.

## **6. Distribution Plan**

### **6.1. Subsidiary Governance**

The CLZ project team is establishing a wholly owned private limited subsidiary in Singapore. The subsidiary maintains the day to day operations and reporting of the entity structure. After the subsidiary's establishment, it will select the appropriate community members to join the subsidiary's functional committees to participate in the actual management and decision-making.

The subsidiary promotes the ecological development, operation and promotion of CLZ. The CLZ subsidiary will be a private limited entity registered in Singapore.

The CLZ subsidiary is an independent, democratic governance body for all members of the CLZ shared economy. Its functions include:

Build the best healthcare and wellness cross-border services ecosystem. Providing privacy, reliability and high quality services

Together with other ecosystem partners, open governance of their resources.

Provide an open, sustainable platform and ecosystem for more users and developers.

Over time, subsidiary may be replaced by other more innovative governance methods, but the establishment of formal governance institutions is an important step in this process.

The subsidiary will invest resources in three specific goals of research, development and governance. The subsidiary will hire a development team to promote this series of work, improve the technology of the entire ecosystem, and continue to maintain the open source code base, so that all members of the ecosystem continue to benefit.

The initial idea of subsidiary governance will adopt a combination of professional committees and functional departments to respond to daily work and special issues. The subsidiary will set up various functional committees, including strategic decision-making committees, technical audit committees, remuneration and nomination committees and public relations committees. The subsidiary refers to the institutional framework of the company and sets up daily operations such as human resources, administration, finance, marketing, research and development

## 6.2. CLZ Allocation

CLZ chain currently is based on Ethereum, the digital asset of the distributed de centralization block chain is CLZ, which is based on Ethereum block chain ERC20 standard tokens.

Total token issuance will be constant at 1 billion and will never be increased.

Allocation	Amount	Distribution
10%	100M	Angel investors
10%	100M	Private placement
10%	100M	Public fund raising
20%	200M	Founding Team
50%	500M	Community and ecology development

## 7. The Team

### 7.1 Team Members



#### **Carlos Chou Founder, Executive Chairman**

Carlos is a proven successful leader in enterprise technology and customer relationship management (CRM), specializing in driving growth through innovative and disruptive market strategies. He led for over 10 years and promoted to President at Oracle-Siebel Systems, the fastest growing enterprise software company in history, later acquired by Oracle for \$5.7 billion. He was Senior Vice President at SAP for 7 years, leading SAP's global CRM business. At Hewlett-Packard he led Global Business Solutions and also ran a US\$3 billion division.

Carlos received a master's degree in business administration from Duke University's Fuqua School of Business and a bachelor's degree in computer science from the University of California, Santa Cruz.



### **Joyce Wang Co-Founder and President**

Joyce is an experienced operations and channel partner management leader. She heads all aspects of CLZ Health’s partner ecosystem and client operations. Before joining CLZ Health Joyce was ecosystem partner manager at VSS Monitoring, a division at NETSCOUT. Joyce holds a bachelor’s degree in systems management from the Nagoya Institute of Technology.



### **Dr. Michael Wong Co-founder, Chief Medical Officer**

Dr. Michael Wong is the co-founder of CLZ Health. As an entrepreneur and medical expert, Michael has twenty years of experience in these fields. Prior to CLZ, Michael served as Regional Vice President and Strategic General Manager at Alignment Healthcare, a leading US health maintenance organization and health technology company. In addition to his role as a physician and educator, Michael also held a number of senior management positions at Pharmedex Corporation, including executive directors and board members. During this period, he also formed a strategic alliance with NEC Corporation in Japan. Michael received a Bachelor of Science degree from the University of Southern California and a Ph.D. in Medicine from the Western University.



### **Moses Mares Chief Operating and Legal Officer**

Experienced C-suite legal and technical advisor with extensive cross industry knowledge and international business acumen. Over the past 30 years, he served as VP, IT Legal at Paramount Pictures, VP Licensing at Acacia Technologies, Senior Corporate Counsel at Siebel Systems (now Oracle) and held law firm positions at Baker & McKenzie LLP and Knobbe Martens LLP.



### **George Voon Head of Engineering**

George has more than 25 years of experience in the high-tech field, covering operating systems, networks, storage and cloud computing. Among them, more than 18 years invested in network security, including firewall, wireless security, SSL, cryptography and blockchain. He previously worked at Alteon, Aruba Networks, and most recently as a project director at Panzura. He holds a bachelor's degree in electrical engineering and computer science from the University of California, Berkeley, and a master's degree in computer science from the University of California, Los Angeles.

## 7.2 Board Advisors



### **Lv Yifan**

Senior Vice President and Chief Information Officer

GOME Group Ltd.



### **Tomoya Endo**

Founder and Representative Director, TransAsia Co.

Founder and Representative Director, Opus Consulting

Director, Oxide Corporation



### **Randy Chou**

Founder and Chief Executive Officer, Nubeva Technologies

Co-founder and Chief Executive Officer, Panzura



**Joel Lin**

Founder and Managing Director, Green Mountains Investments Pte, Ltd.

Founder and President, Sandler Training HK/SG/NJ



**David Wu**

Founder and CEO, SUPERLINEAR

CTO, Riverbed Technologies



**Wang Runde**

Founder & CEO, COOIX

Vice President, Digital China

### 7.3 Technology Partners

1. [SUPERLINEAR](#) is a leading provider of community and client ecosystem management leveraging artificial intelligence and big data. Superlinear helps clients identify founding users for a DAPP's community using an existing and growing corpus of highly curated wallet addresses targeted specifically for the community. Once identified, the tool makes it easy to bring these users into the community by managing the mechanics of air drop and bounty processes automatically using efficient and cost effective smart contracts. These monitors use activity across social media, DAPPs, and blockchains so that even user behaviors outside of traditional bounty processes are properly rewarded. By utilizing big data and machine learning techniques. Superlinear identifies and validates authentic and beneficial user contributions made to a community and is constantly discovering additional founding users for continued community growth.

DAPP developers can leverage this data to gain insights into their token flow and which user profiles are contributing most to their community's health.

Developers use reward system to manage their token economies. They maintain full control as the reward system is non-custodial and all token distributions are ultimately handled by a distribution contract under their control. Users are incentivized to actively participate in a DAPP's community through rewards which are redeemed using contribution proofs they earn via good behaviors in the community as well as on social media.

Selected through community governance, compliance verification providers are responsible for ensuring users are properly vetted based on regional regulatory policies. Selected through community governance, contribution evaluation providers are tasked with validating user contributions to a community and providing users with contribution proofs accordingly. Selected through community governance, analytics providers provide DAPP developers with visibility into token flow within their communities.

2. [COOIX](#) (Beijing) Co., Ltd. is a leading provider of decentralized network and blockchain technology services in China. In 2017, COOIX secured angel round investment from China's Legend Group. COOIX is devoted to business technology innovation to bring security, quality, equality, efficiency and low cost into the decentralized network and blockchain technology services.

## 7.4 Ecosystem Partners



## **8 Disclaimer**

This document is for information purposes only. The above information or analysis does not constitute an investment decision. This document does not constitute any investment advice, investment intention or investment in education.

This document does not constitute, nor should it be construed as providing any buying or selling behavior, or inviting to buy or sell any form of securities, nor is it any form of contract or commitment;

Investors should clearly understand the risks of CLZ tokens. Once they participate in the investment, they understand and accept the risk of the project, and are willing to personally bear all the corresponding results or consequences;

The CLZ team does not assume any direct or indirect loss of assets caused by participation in the CLZ project.

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