

## MedicayunLink Whitepaper for ICO

**MedicayunLink**

**A Trusted Network for Healthcare Data Exchange**

Version 2.1

[www.medicayunlink.io](http://www.medicayunlink.io)

2018.03.21

# Index

Introduction .....	3
Disclaimer.....	4
Executive Summary .....	6
Background & Problems .....	9
Solutions .....	13
Incentives Mechanism .....	17
Product Roadmap .....	20
Executive Team .....	21
ICO Plan and Rules .....	25
Conclusion .....	28

# Introduction

The contents of this document contain information related to the MedicayunLink project's Initial Coin Offering (ICO), including the project concept, method, value proposition, product and service plans and execution, business model, the ICO strategy, and concrete solutions. This document provides abridged explanations of the aforementioned items with the aim of helping interested parties gain a better understanding of the MedicayunLink project as well as information pertinent to the project's ICO.

The release date of the MedicayunLink white paper is March 21, 2018. Readers are welcome to visit the project's public website [www.medicayunlink.io](http://www.medicayunlink.io) to download a copy of the document. Additional information related to the project is also available through other forms of social media.

# Disclaimer

Please read through the disclaimer for this project thoroughly. Consult with legal counsel before taking any action related to this project.

The team of the MedicayunLink project, as well as other involved organizations, enterprises, or individuals, shall not be held liable for any direct or indirect damages or losses incurred by readers of this white paper or those who have taken further action based on what they have read in this document.

The information presented in this white paper is for reference purposes only, and is not intended to serve as investment advice nor a representation of any particular set of interests. The contents of the document are also not an official approval of the project. Readers of this white paper shall be personally liable for any actions taken based on the contents of this document.

The contents of this document comprise descriptive details of an undetermined future. These forward-looking statements include predictions of future trends, product and service plans, and project timetables. The forward-looking statements in this document include, but not limited to, the following:

- Trends and predictions for industry development
- Project vision and strategy execution
- MedicayunLink product development and execution timetable
- Projected performance in the market
- Projected financial performance
- Projected valuation of the project
- Projected liquidity: future cash flow and capital requirements

Forward-looking statements in this document touch on the project's risks and uncertainties. The actual execution of the MedicayunLink project may very well result in inconsistencies with these statements. These forward-looking statements are by no means a guarantee for developments in the

future. The MedicayunLink project team is not obliged in any way to make timely updates to these statements. The reader of this document shall bear full responsibility for any and all outcomes arising from actions that are taken based on the statements presented in this document.

The MedicayunLink project team cannot guarantee that the project will progress to meet the predicted outcome, nor can they guarantee that the ICO valuation will increase in the future. The MedicayunLink project team neither guarantees nor makes any promises with regards to the projected development and ICO valuation of the project.

The MedicayunLink project team has done its utmost to ensure that the information presented in this white paper document is accurate and complete. However, the team is unable to fully guarantee that the information presented is absolutely accurate.

To the maximum extent permitted by applicable laws, the MedicayunLink project team shall not be held liable for any of the aforementioned situations.

Reading the white paper for this project shall signify your agreement with the following:

1. This white paper provides information pertinent to the MedicayunLink project. The information is not a securities issuance explanation, investment advice, interest representation, or sanction of the project
2. The MedicayunLink project team is free from all liability to the maximum extent permitted by law
3. You, the reader, comprehend the principle behind blockchain technology, its key components and limitations. You are familiar with how blockchain operates and how to protect personal privacy, maintain data security, and keep your cryptocurrency wallet safe and secure
4. The tokens issued by MedicayunLink are classified as utility tokens, and are not considered a security under any jurisdiction
5. You understand the risks extant in cryptocurrencies and are able to estimate and bear possible damages or losses incurred thereof
6. You do not expect to profit from the MedicayunLink project
7. You are not a resident of Mainland China, Hong Kong, the United States or any country or region that has been economically sanctioned or legally restricted

# Executive Summary

Modern medicine increasingly values the importance of evidence-based medicine, and the rapid development of information technology is able to help the medical industry more efficiently collect and process medical data and information—crucial elements that constitute evidence-based medicine. Healthcare providers can now utilize well-designed software to harness the ever-increasing vastness of medical data. However, given the industry's current environment with its various legal, economic, and technological limitations, medical data remains scattered among various medical institutions and stored in their own databases. A new bottleneck is created to obstruct data integration efforts and effective usage of data.

An exchange and sharing of healthcare data among stakeholders of the industry would indubitably enhance the value of the data. However, there are obvious obstacles to achieving this: how does one ensure that the data can be properly processed and exchanged between different systems? How does one ensure the privacy of the patients? What kind of solutions can be used to maintain data security? How can one ascertain the value of the data exchanged? These are just some of the obvious issues.

The aforementioned challenges hamper the fluidity of healthcare data and restrict the value of the data being mined. The MedicayunLink project aims to build a completely trustworthy, secure, and highly efficient network through the use of blockchain technology and structure in order to achieve the following goals:

- Exchange of healthcare data among stakeholders of the industry
- Approved and authorized data usage by patients
- Determination of the data value according to changes in market demand
- Ensured immutability and traceability of data exchange records and compliance with legal oversight requirements
- Distributed storage and encrypted transmission of healthcare data
- Compliance with HIPAA<sup>1</sup> and other privacy protection regulations and standards

---

<sup>1</sup> Health Insurance Portability and Accountability Act

In addition to realizing these goals, MedicayunLink also has the following additional usages:

- Enhance relationships between healthcare providers and their patients through an incentive system
- Motivate healthcare providers to provide even more precise and higher levels of professional consultations and services with merit-based rewards
- Assist in the establishment of direct relationships between patients and pharmaceutical manufacturers and other life science enterprises by decreasing the number of intermediaries and promoting real world evidence-based research
- Promote the dissemination of information regarding public health management, epidemic monitoring, drug recalls and other public health and safety-related information, etc.

The MedicayunLink project is an open source, decentralized, distributed, transparent network that is based on the structural design of Hyper-ledger architecture. MedicayunLink guarantees the readability of a patient's identity, secure data transmission and storage, legally authorized access and usage, and the traceability of a patient's record of visits.

MedicayunLink clearly identifies the patient as the owner of their own healthcare data and encourages patients to share their data with medical institutions. In order to stimulate more voluntary data sharing as well as the creation and maintenance of favorable developing ecological environments, MedicayunLink will issue a set number of Ethereum ERC 20-based tokens to reward patients who share their data. These tokens can be used to purchase drugs at discounted prices from pharmaceutical companies collaborating with MedicayunLink. In addition, it can also support patients via mobile apps in purchasing physician-certified virtual consultation services. As MedicayunLink's ecological system becomes more diversified and replete, its tokens can be directly used to cover costs incurred by patients at medical service institutions. Apart from its intended scope of application, the tokens can also be freely exchanged between token holders or traded on public markets.

According to MedicayunLink's vision of data democratization, an individual's personal healthcare data should not be kept sealed inside an isolated computer system. The patient is the owner of their personal healthcare data, and should thus have the right to decide how and with whom to share this

data. Stimulating patient participation and promoting a free and systematic flow of healthcare data within the legal framework will break the boundaries of medical information technologies erected by traditional medical information technology practices, and subsequently bring about a transformation of modern medical service industry transformation.

The MedicayunLink project leverages blockchain technologies to build a new type of collaborative system to form new connections and relationships among patients, medical service providers, and enterprises, such as pharmaceutical manufacturers. Moreover, it can minimize the business friction, and lower the cost of transactions. The efforts of MedicayunLink will result in speeding up the discovery and development of new drugs, improving the efficiency and accuracy of diagnostic services, and bringing a better utilization on public healthcare resources.



# Background & Problems

The Deloitte Center for Health Solutions stated the following in their *Healthcare and Life Sciences Predictions 2020: A Bold Future*:

“For many countries, healthcare has become a national infrastructure priority and attracts significant funding [...] As a result, patients themselves, clinicians, and healthcare officials use healthcare data to transform diagnosis and treatment to improve outcomes and healthcare productivity. Pharmaceutical companies now collaborate fully with patients and healthcare systems using data to develop better treatments, launch them faster and price according to improvement in health outcomes.”<sup>2</sup>

The immense value coming from the economic and social progress that is spurred by healthcare data has been researched in-depth and widely accepted. With breakthrough developments in high performance computing and data storage technology as well as rapid cost reductions, the large volume of healthcare big data can now be more easily integrated. Life science businesses have the capability to build sizable, exhaustive, and holistic databases to store healthcare data from tens of thousands of people. The types of data in the database include the patient’s personal information, basic vital signs, medical histories, treatment and drug prescription records and other data obtained via traditional collection methods; the database structure is also sophisticated enough to collect more complex data such as genomic data.

Technological advancement has become the cornerstone of healthcare big data. But as the healthcare industry transforms, it will inevitably bring severe issues. One of the most contentious issues among the life science, medical, and healthcare industries is the following:

- How to help medical institutions legally obtain healthcare data shared by patients?

---

<sup>2</sup> *Healthcare and Life Sciences Predictions 2020: A bold future*, The Deloitte Center for Health Solutions, <https://www2.deloitte.com/content/dam/Deloitte/cn/Documents/life-sciences-health-care/deloitte-cn-lshc-lshc-predictions-2020-zh-150526.pdf>

Healthcare service providers could make follow-ups to patients who have received treatment in order to understand how patients are doing post-treatment. This act of following-up is a manifestation of humane concern, which is touted by the medical industry. More importantly, the data obtained from follow-up visits with post-treatment patients could help healthcare providers evaluate the effectiveness of medical procedures and conduct further research into how to improve treatment. Traditional methods of following up include writing letters, using surveys, or making phone calls. But with rapidly advancing smart and mobile communication technologies, social media software and wearable devices can be leveraged to maintain communications with patients and collect healthcare data from multiple sources.

Technology and lifestyle changes have strengthened the relationship between healthcare providers and patients. Patient Generated Health Data (PGHD) have been increasingly used to effect important changes, such as raising the level of medical treatments, developing health management best practices, and lowering medical costs. In 2017 alone, there were 43 new types of healthcare products, which utilize telemedicine to remotely manage and monitor patients' health, that passed FDA<sup>3</sup> approval.

However, technological advancement has also complicated social relationships. People have more reasons now to safeguard their privacy, given that even the slightest negligence during the transmission of private information could cause unforeseen consequences. The results of a 2017 survey conducted by leading healthcare information and management organization HIMSS<sup>4</sup> showed that patients believed the following major factors to be the primary reasons inhibiting their willingness to engage in PGHD sharing:

- Trustworthiness of the receiving end of the data transmission
- Privacy and security issues with patient information
- Patient's right to access and manage their personal data
- How the data is used and what it is used for, and regulations around distributing and sharing the data
- Reliability and compatibility of portable medical equipment; precision, reliability and performance of application software

---

<sup>3</sup> US Food and Drug Administration

<sup>4</sup> Health Information and Management Systems Society

Apart from the potential risks of sharing data over the Internet, the uncertainty over the payoff from doing so is also one of the critical reasons that cause patients to hesitate from sharing their healthcare data. PGHD would benefit medical professionals and healthcare providers as well as researchers in understanding illnesses and creating more efficacious treatments. But without reliable AI-assisted procedures, large volumes of healthcare data will only add to the workload of medical professionals. In most cases, physicians can only provide their patients with general medical advice and feedback, which are at most only statistically relevant to the patient. At the rate modern medicine is progressing, personalized medicine is still a long way off.

Many countries have stipulated strict regulations and laws concerning privacy protections for patients. In 1996, the United States government passed the Health Insurance Portability and Accountability Act (HIPAA) to protect the privacy of the patient and their healthcare information. The European Union built on their existing privacy protection laws and announced that they would begin enforcing the General Data Protection Regulation (GDPR) in 2018. Under this regulation, violators can be penalized or even face criminal charges.

In order to comply with these legal requirements, medical service providers, pharmaceutical manufacturers, and other business organizations will need to establish complex operating procedures and corresponding supportive network systems. In the United States, there are currently more than 100 independently run healthcare information networks that provide services<sup>5</sup> to members of their consortium. These information networks play an important role in the exchange of data between members. However, inter-network communications and exchanges remains a major obstacle, making it difficult to establish a patient-oriented medical service system.

What can be done so that patients trust the system and become willing to share their healthcare data? What is needed for building an open, simple, and transparent system that can allow healthcare data to be exchanged between institutions within the scope of the legally stipulated framework? Many public organizations and companies have used various methods in an attempt to create seamless inter-network exchanges but have yet to make any significant breakthroughs. Everyone is constantly looking for a technologically feasible and cost-effective solution that makes good

---

<sup>5</sup> *Draft Trusted Exchange Network*, The Office of National Coordinator of Health Information Technology

business sense. But with the emergence of blockchain technology and a coin-driven economic model, the solution is at hand.

# Solutions

The MedicayunLink project deploys a decentralized, distributed, and transparent blockchain network that is based on the structural design of Hyper-ledger Fabric, which establishes connections of trust and fosters data exchange between the users. The network uses access permission-type of consortium blockchain technology

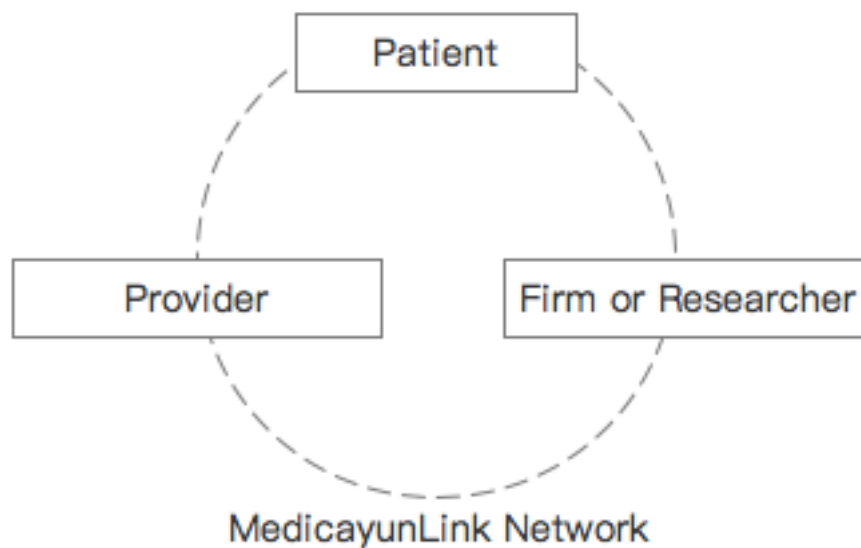


Figure 1: User Role

In the MedicayunLink network, there are three user types:

- Patient: provides health, disease, and illness-related information and data as well as the authorization to access and use the data
- Healthcare provider, such as clinics, hospitals and other medical institutions: responsible for creating patient records, verifying patient identity, and collecting healthcare data
- Enterprise or researcher: such as pharmaceutical manufacturers, genomics companies and other life sciences enterprises, or public health researchers: access and use the data

The connections between each type of user is graphically represented in the workflow chart below:

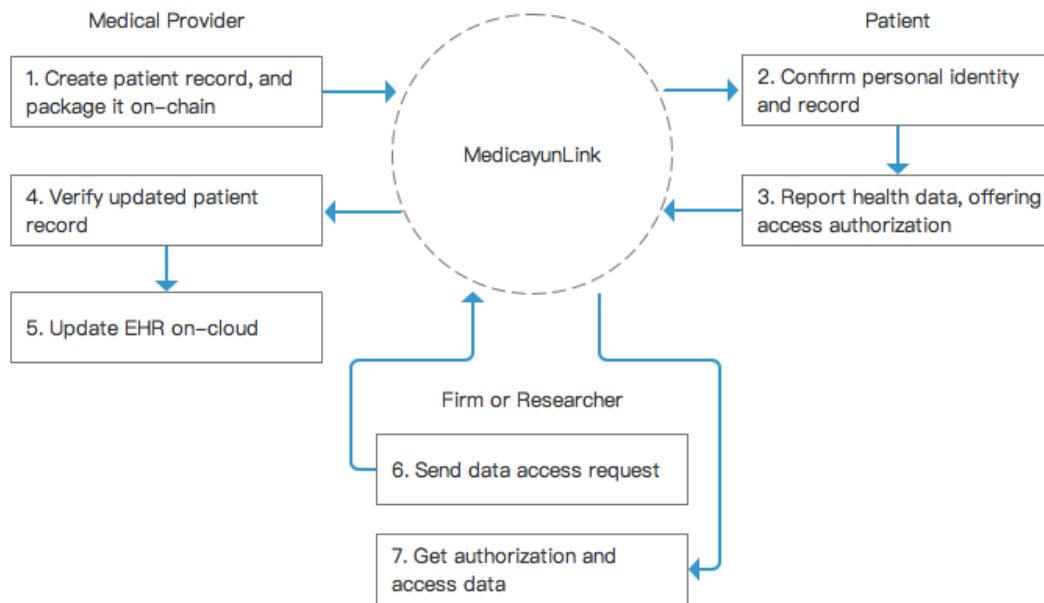


Figure 2: Role Relationship and Business Process

Within the MedicayunLink network, patients will be assigned a Unique Patient Identifier (UPI). Healthcare providers will be responsible for creating and maintaining UPIs. After confirming a patient's identity, any new healthcare data coming from the patient will be continuously updated in the MedicayunLink network.

Following the confirmation of a unique patient, the patient can then compile all of their medical records into a single-view data set. Continuity in medical records allows for a more holistic evaluation of medical solutions and treatments.

In terms of technological structure, healthcare providers, companies, and organizations within the MedicayunLink network are responsible for creating trusted server nodes and supply support via computing power. Patients can then join the MedicayunLink network via mobile applications, which allow them to confirm, update, or give access and private keys for their healthcare data.

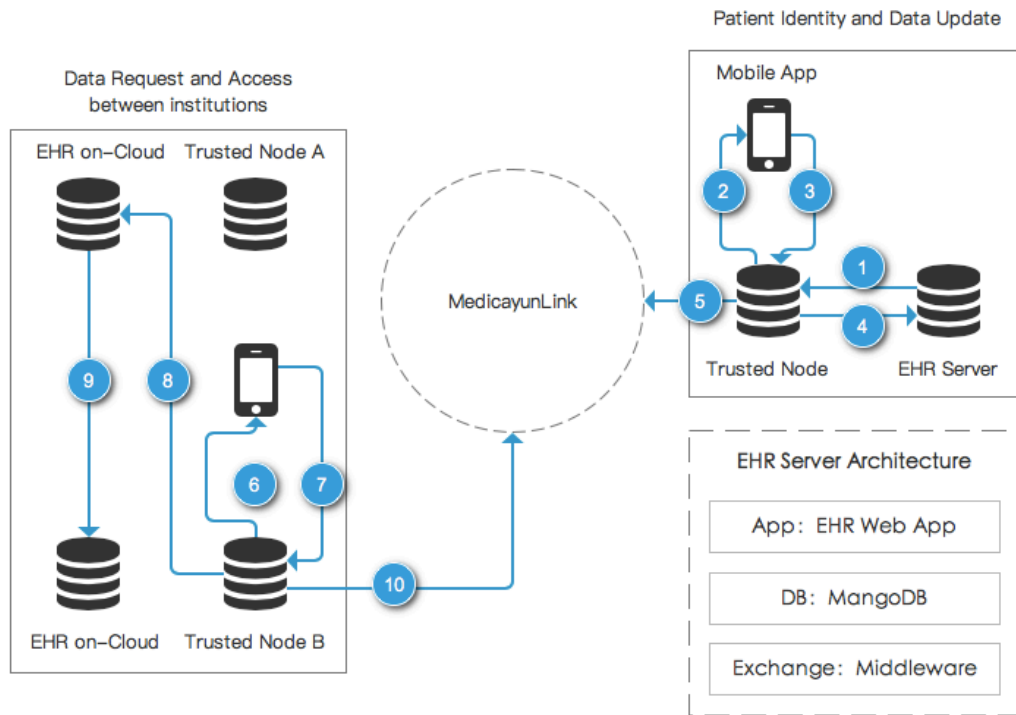


Figure 3: Data Update, Access, and Authorization

As seen in Figure 3, when medical institutions want to verify the patient's identity and request for updates to their healthcare data, they go through the Electronic Health Record (EHR) server's API interface:

- 1) Send a request and public key to the receiver node
- 2) The receiver node transfers the request and public key to the patient's app interface
- 3) The patient accepts the request and transmits updated data, the public key, and the private key for access authorization
- 4) After a trusted node verifies the data exchange, the EHR server receives the patient's data and confirms its access authorization
- 5) Lastly, the trusted node will create a transaction for this data exchange and package it into the blockchain.

MedicayunLink develops and provides a public interface while a third-party application goes through the call interface and the trusted node will create a smart contract to meet business needs.

During inter-institutional data exchanges:

- 6) A medical institution's EHR application server transmits a request for data and a public key
- 7) The patient returns the public key along with a private key for authorization to the trusted node
- 8) The trusted node confirms whether the data exchange was successful before notifying the EHR server to execute the data exchange
- 9) Commence data exchange
- 10) Trusted node packages the transaction in the blockchain.

Critical information such as the patient's Unique Patient Identifier, abstract records of every data update, data storage locations, and records of data exchanges are all kept in the blockchain ledger. The complete records are stored in a distributed storage system and are managed by trusted nodes.

MedicayunLink is a decentralized network structure, with features that emphasize security, transparency, and efficiency. The network creates trusted connections between its members, and effectively safeguards the privacy of patients. Moreover, there are clear records for authorization of how the data can be used, which can be traced and audited as per legal oversight requirements.



# Incentives Mechanism

The MedicayunLink project issues tokens to maintain the blockchain network and further develop the incentive mechanism for the entire blockchain ecological environment. The tokens issued are based on Ethereum ERC 20.

Every trusted node that has been approved to join the MedicayunLink network is responsible for creating patient record abstracts, recording data exchange processes, and generating blocks. After trusted nodes have verified and packaged the data into blocks, the nodes will be “rewarded.” This type of rewards measure the degree of contribution of a node and is called Contribution Points (CP).

In addition to verifying transactions and generating blocks that have obtained CP, medical institutions can also obtain extra CP rewards by building a patient record and having the patient confirm the record.

This principle behind this incentive mechanism’s design aims to incentivize those who possess healthcare resources, such as healthcare providers, to attract more patients to join the network and create more patient records. Companies who do not have patient resources, such as pharmaceutical manufacturers and insurance firms, can obtain CPs by purchasing servers with high computing power and verifying more transactions to generate more blocks.

Contribution Points can be moved between trusted nodes and the patient’s interface. When a healthcare provider or company desires to obtain and use patients’ healthcare data, they need to first request authorization and a private key from the patient. After receiving the data from the patient, the healthcare provider or company will transmit a CP to the patient. The specific number of CPs is first determined by the data inquirer and then managed and executed by a smart contract.

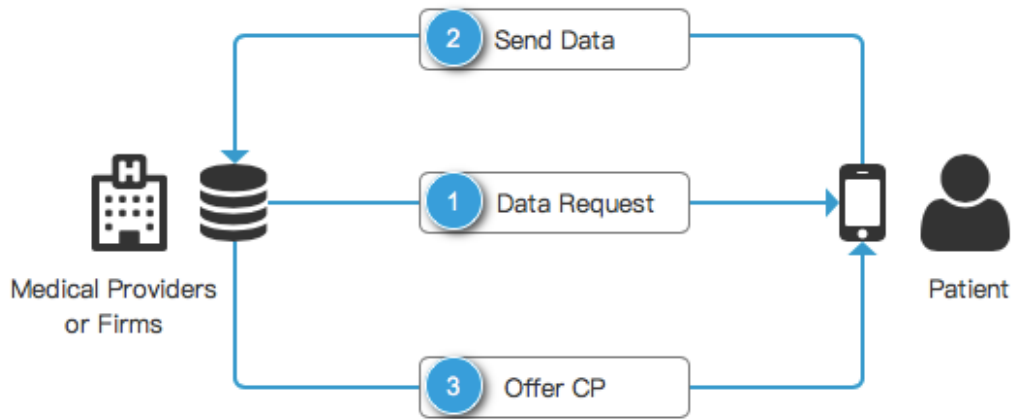


Figure 4: Transfer of CP

The CP measures a user's degree of contribution to the network. The amount of its initial issuance will be capped. In order to ensure a dynamic ecological environment, the CP has an auto-cancelling feature. In essence, if a CP is not exchanged or moved within 12 months, the CP will auto-cancel. Every year, MedicayunLink managers will increase or decrease the number of CPs depending on how many are in circulation at the time.

CPs and tokens can be exchanged according to a set rate. The formula for this rate is as follows:

$$\text{Ex. Rate} = \frac{\text{Total CP Issued}}{\text{Total Token Allocated}}$$

Exchange Rate = Total number of active CPs issued / Total number of tokens issued

From a patient's perspective, CPs cannot be traded or purchased on a public market. Patients can only acquire CPs after sharing their healthcare data with medical institutions. The CP has three main usages:

1. The value of a CP is determined by the relative market value of its corresponding token; the CP can then be redeemed when purchasing products from pharmaceutical companies working with MedicayunLink
2. Patients can use CPs to pay healthcare providers for online-video consultations
3. CPs can be exchanged for tokens.

Using CPs as an intermediate tool to measure the degree of contribution and as a stimulant for data exchange ensures that the MedicayunLink network's flow of data remains active. At the same time, CP is a means to minimize the negative effect to the business due to fluctuations in token market.

As an economic compensation for data shared, the payment mechanisms of CPs and tokens will effectively strengthen the relationship between medical institutions and their patients. This mechanism ensures that value realization is freely and equally exchanged, and removes the ambiguities with rights, duties, and how benefits are distributed which exist in traditional systems. The token's incentive mechanism allows all participants to fairly receive benefits according to their contribution degree of participation.

# Product Roadmap

The patient-end app and server-end software make up the MedicayunLink network, which is comprised of trusted nodes on the blockchain, EHR servers, CP transaction servers, and other key modules. The first version will be released in the sixth month in the development cycle.

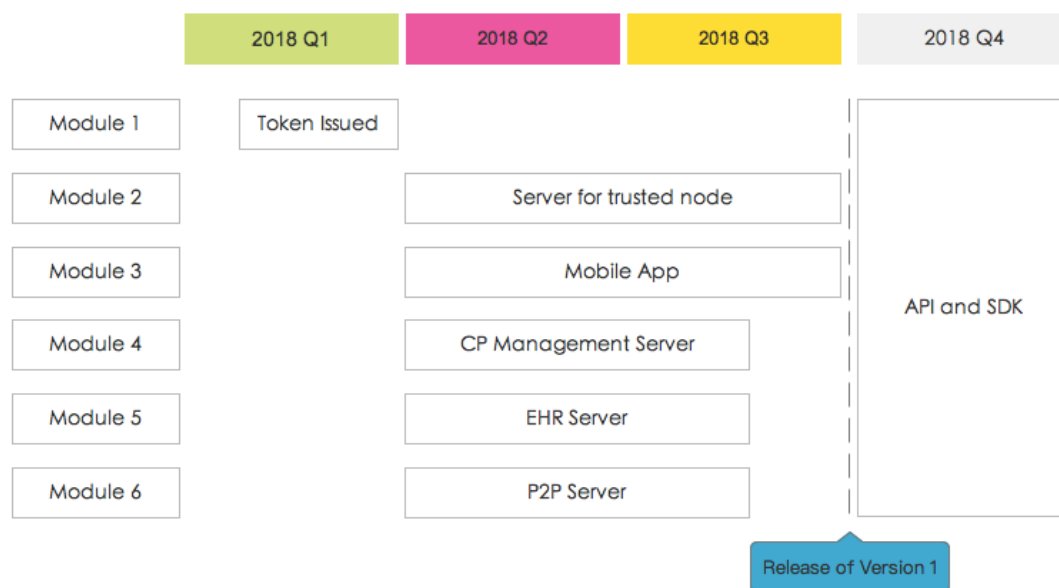


Figure 5: Technology and Product Roadmap

After the release of the first version, MedicayunLink will focus on developing its API interface and SDK to enhance support for third-party applications during Q4 of 2018.

# Executive Team

## **Executive Team Members**

Michael Zhao, *Founder and CEO*

MBA, graduated from Guanghua School of Management of Peking University, and ESSEC Business School in France. Michael possesses extensive experience with enterprise software market expansion and production operations, and has formerly worked for the Dell Computer Corporation followed by a stint at Oracle. In 2014, Michael formed and started leading a team in developing a cloud-based healthcare big data platform for Mainland China's top-tier hospitals. The big data software platform is currently used by around 180 large-scale hospitals.

Liang Li, *Co-founder and CTO*

Liang Li obtained his bachelor's degree in computer software at Shandong University, and formerly served as the director of technology development at Beijing Lanxum Technology Co., Ltd. He specializes in the software application development for enterprise big data as well as data analysis and modeling. Li has also spearheaded large-scale enterprise software development, such as China Minsheng Bank's micro credit-reporting system. In 2014, Li developed big data platforms for China's Union Hospitals, Fu Wai Hospital and other top-tier hospitals in China. In 2016, Li implemented blockchain technology in an attempt to alleviate data authorization and traceability issues. In regards to the development of applications of HyperLedger's structure, Li possesses both considerable R&D and leadership experience.

Dr. Yang Chen, *Chief Medical Officer (CMO)*

Dr. Yang Chen graduated from Shanghai Jiaotong University and obtained her Doctorate of Medicine (MD) at the Peking Union Medical College. She previously served as an attending physician at the Fuwai Hospital and Beijing Anzhen Hospital, respectively. Dr. Chen has been published multiple times in first-rate international medical journals, and possesses extensive professional and academic experience in the field of cardiovascular imaging.

*Yue Qi, Core Developer*

Yue Qi has a wealth of experience in team management and technological development of distributed database systems, cloud computing, and enterprise search technology. Over the span of a decade, he has had stints at Youtube, Microsoft, and Google, and has served as the R&D director in various sectors. Qi obtained his bachelor's degree in computer science from Beihang University, and has a Master's in the field of machine learning from the University of Pennsylvania. In 2014, Qi joined the ranks of MedicayunLink's core developers, and has since been striving with the team to develop and deploy cloud technology-based big data processing platforms for Mainland China's healthcare institutions.

*Wei Liu, Core Developer*

Wei Liu boasts substantial developer experience in the field of computer and information security, including cipher algorithms and its applications, access control, and certificate authority. Liu is also highly proficient with Unix/Linux system's kernel programming and high performance network programming technology. Liu previously worked as a researcher at the Chinese Academy of Sciences and served as a senior R&D manager and system architect at NQ Mobile (NYSE: NQ). Liu obtained a bachelor's degree in computer science from the Huazhong University of Science and Technology's School of Computer Science and Technology, and has a master's degree in cryptography from Huazhong University of Technology.

*Tao Ma, Core Developer*

Tao Ma obtained his master's degree in Microelectronics and Solid State Electronics from Hebei University, and has eight years of work experience with microchip design and development. Before joining MedicayunLink, Ma had a stint at Xiaocheng Tech (China A-share: 300139) where he led a team in developing carrier-wave smart meter microchips. Currently, Ma oversees the research and development of software and equipment for data exchange security for MedicayunLink.

## **Academic Consultants**

*Dr. Zhihui Hou, Medical Academic Consultant*

Dr. Zhihui Hou earned his bachelor's degree in clinical medicine from Wuhan University and his master's and doctorate degrees at Peking Union Medical College in medical imaging and nuclear

medicine. Dr. Hou currently works as a physician at Fuwai Hospital. His area of expertise is prediction and diagnosis of cardiovascular disease. Dr. Hou previously took part in multiple large-scale research projects in the field of cardiovascular health and has been published 48 times in international medical journals for radiology. In addition, Dr. Hou has presented multiple times at various academic conferences and associations, such as the Radiological Society of North America (RSNA), and is also a member of the Society of Cardiovascular Computed Tomography.

## **Business Consultants**

Dr. Haipeng Shen, *Partner and Business Consultant*

Dr. Haiping Shen is a tenured professor in the Faculty of Business and Economics at the University of Hong Kong as well as an Associate Dean of Knowledge and Exchange. Dr. Shen was previously a tenured professor at the University of North Carolina at Chapel Hill in the Department of Statistics and Operations Research. He is also a world-class statistician and a fellow of the American Statistical Association. Currently, Dr. Shen is an editor for numerous top international academic journals such as *Management Science* and the *Journal of American Statistical Association*. In 2015, Dr. Shen became one of the patterns in MedicayunLink core teams, working together to take advantage of big data for Medical industry. Dr. Shen's interests and contribution concentrate on preventive medical, population health management, and health resources allocation and optimization. Dr. Shen earned his bachelor degree in Mathematics from Mathematics College of Peking University, Master and Doctoral degree from Wharton, University of Pennsylvania.

Yao Fu, *Business Consultant*

Fu is a well-known independent business consultant and a veteran in Mainland China's information technology industry. He has held positions at IBM and Dell China companies overseeing their sales and marketing departments. Fu specializes in enhancing his corporate client's marketing efficiency and sales performance via training and consulting. His clients include IBM, Hewlett Packard, Huawei, Lenovo, China Mobile and other notable companies. Fu is also an accomplished novelist with best-selling "trade war" novels, such as *Lost or Won* and *Entrepreneurial Age*, under his belt. Fu has a 20-year collaborative working relationship with the founders of MedicayunLink, and is the MedicayunLink project's consultant in areas such as operations strategy, business development, and talent recruitment.

Jinqiu Wei, *Financial Analyst Consultant*

Mr. Wei is the Executive Director of the China General Nuclear Power Group's industrial investment fund, and has extensive experience in areas such as international financing, investing, and mergers and acquisitions. Mr. Wei earned his bachelor's degree in business management at the Simon Fraser University, and is a Certified General Account (CGA, L3) and a Certified Financial Analyst (CFA, L2) in Canada. Mr. Wei will be assisting with the MedicayunLink project in areas such as financial analysis and forecasting, international financial laws, and implementation.



# ICO Plan and Rules

## Token Allocation

The tokens issued in the MedicayunLink Project are abbreviated as MCL. The total number of MCL tokens issued in the ICO is 100 Million, and comprises the following:

- 50 million tokens (50%) generated and circulating within the MedicayunLink ecological system are used for rewarding data exchanges and sharing
- 30 million tokens (30%) are allocated for the ICO, including private and public funding
- 20 million tokens (20%) are owned by the MedicayunLink management team

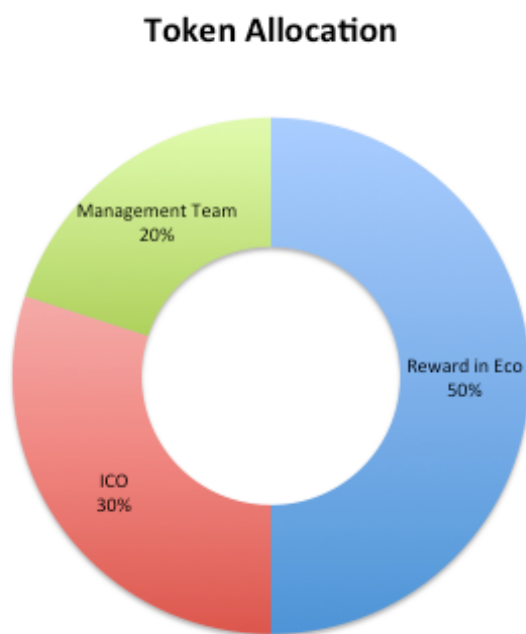


Figure 6: Token Allocation

## ICO Plan

Thirty million MCL tokens, which accounts for 30% of total tokens issued, will be used in the ICO as follows:

- 6 million tokens (20% of the ICO) are allocated to cornerstone investors
- 15 million tokens (50% of the ICO) are allocated to priority investors

- 9 million tokens (30% of the ICO) are allocated to regular investors

MCL tokens issued in the ICO can only be exchanged for the cryptocurrency ETH as per the following rules:

- Total number of MCL tokens issued in the ICO (30 million) can be exchanged for 15,000 ETH
- Thus, the exchange rate is  $2,000\text{MCL} = 1\text{ETH}$

### **ICO Lock-up**

- For cornerstone investors, restrictions on 40% of the total number of locked tokens are lifted in the first month after a six-month lock-up period with subsequent restrictions lifted for 30% of the total number of locked tokens in the second month and the remaining 30% in the third month
- For priority investors, restrictions on 30% of the total number of locked tokens are lifted after the three-month lock-up with subsequent restrictions lifted for 30% of the total number of locked tokens in the second month and the remaining 40% in the third month;
- Regular investors do not have a lock-up period.

### **Lock-up and Release of Non-publicly Issued Tokens**

- Under the MedicayunLink network's incentive system, tokens are continuously released into circulation as per the number of users in the network. The token can be traded and exchanged after releasing into circulation.
- The remaining tokens held by the management team have a lock-up period of three years. Restrictions on 25% of the total number of locked tokens are lifted after the first year of the lock-up period with subsequent restrictions lifted after the second year on another 25% of the total number of locked tokens and the remaining tokens (50%) after the third year.

### **Trading on the Coin Exchange Market**

The MedicayunLink project's tokens in its ICO and other tokens in circulation will be traded publicly on the stock exchange, though the exact time for when this can take place has yet to be determined due to stock exchange regulations.

## **Identity Verification for ICO Subscribers**

In accordance with legal oversight requirements and in order to lower the project's levels of risk and uncertainty, MedicayunLink uses a whitelist method to conduct preliminary third-party KYC verification of ICO subscription applicants. Only those who pass the verification process are eligible to subscribe to the ICO.

## **ICO Termination**

The ICO has minimum funding requirement set at half of total amount issued in the ICO, which accounts for 15 million MCL tokens. Should the project fail to meet this minimum requirement, the ICO will be terminated.

After termination of the ICO, the ETH paid by the clients will be refunded in a lump-sum payment. MedicayunLink is not liable for any losses incurred by clients from the termination of the ICO.

## **ICO Timetable**

The ICO will be officially launched on March 21, 2018 at 9 a.m. (UTC +8), and closed at 11 a.m. (UTC +8) on April 19, 2018.

# Conclusion

The aging population and rapidly increasing healthcare costs have placed enormous burdens on the social welfare system, forcing the payment structure of healthcare services to transform from volume-based to value-based.

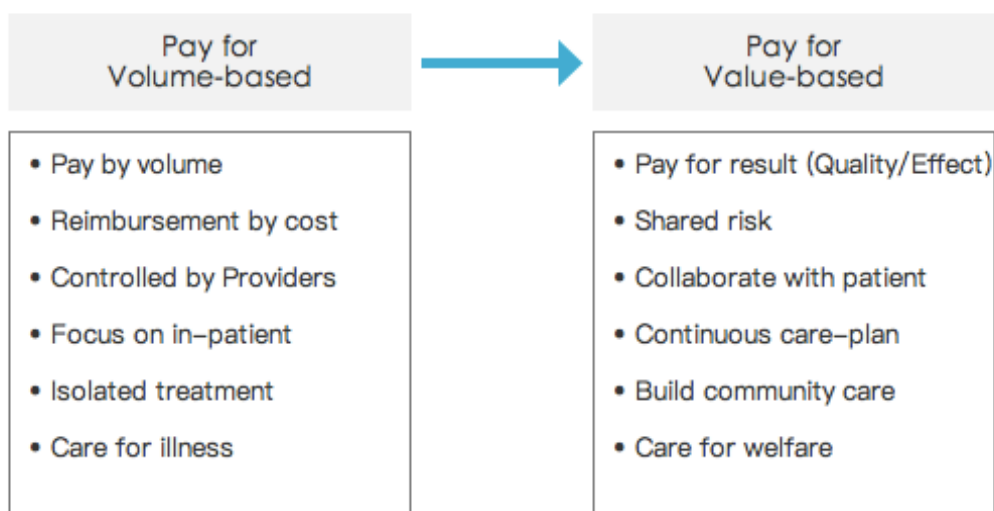


Figure 7: Transformation of Medical Care System

Healthcare service institutions and patients are inextricably linked, making collaboration between the two sides a crucial and distinguishing feature of the new healthcare service model. In 2016 research report, PricewaterhouseCoopers (PwC) stated that patient engagement under the Prescription Drug User Fee Act (PDUFA) would become an integral part of FDA's approvals process for healthcare institutions in 2017<sup>6</sup>.

The MedicayunLink project aims to create a new model for collaboration among patients, healthcare providers, and pharmaceutical manufacturers via blockchain technologies, which provides solutions for inhibitors of collaboration, including issues with privacy protection and data integrity. Moreover, by using tokens as an incentive, the clarity and consistency of the interests of all parties are fully realized.

---

<sup>6</sup> *Top Health Industry Issue in 2017: A Year of Uncertainty and Opportunity*, PwCPwC's Health Research Institute (HRI), December 2016

MedicayunLink strives to maintain a single decentralized, transparent, and highly efficient network and collaborative community in order to spur transformations of the healthcare and life science industries and raise the usage efficiency of healthcare resources as well as population health standards.

## References

1. *Healthcare and Life Sciences Predictions 2020: A bold future*, The Deloitte Center for Health Solutions, <https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/life-sciences-health-care/healthcare-and-life-sciences-predictions-2020.pdf>
2. *Draft Trusted Exchange Network*, The Office of National Coordinator of Health Information Technology
3. *Top Health Industry Issue in 2017: A Year of Uncertainty and Opportunity*, PwC's Health Research Institute (HRI), December 2016
4. *Value in Healthcare Laying the Foundation for Health System Transformation*, November 2017, [http://www3.weforum.org/docs/WEF\\_Insight\\_Report\\_Value\\_Healthcare\\_Laying\\_Foundation.pdf](http://www3.weforum.org/docs/WEF_Insight_Report_Value_Healthcare_Laying_Foundation.pdf)