



# I-CHAIN WHITE PAPER

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White Paper V1.0



# TABLE OF CONTENTS

<b>01</b>	<b>Introduction</b>	<b>03</b>
<b>02</b>	<b>Mission and Vision</b>	<b>07</b>
<b>03</b>	<b>Industry Background</b>	<b>09</b>
3.1	The value of users' personal data is exploited	10
3.2	A terrible waste of advertising budget	14
3.3	Problems we have to solve	17
<b>04</b>	<b>Solution Design</b>	<b>18</b>
4.1	I-CHAIN browser	20
4.2	Optimize user advertising experience	21
4.3	Optimize advertising effectiveness	21
<b>05</b>	<b>Technical Implementation</b>	<b>23</b>
5.1	Digital currency wallet embedded	24
5.2	Browser	25
5.3	Safety mechanism	26
5.4	Data security mechanism	28
5.5	Data bank	30
5.6	Each layer in the basic architecture	32
5.7	Data security and privacy	33
<b>06</b>	<b>Operating Plan</b>	<b>34</b>
6.1	ICA — I-CHAIN ads coin	35
6.2	Use of token reserve	36
6.2	I-Chain revenue model	36
6.3	Community committee	37
6.4	Risks and possible problems	37
6.5	Others	37
<b>07</b>	<b>Business Status and Plan</b>	<b>38</b>
7.1	Partners	39
7.1.1	I-CLICK	39
7.2	Business plan	40
7.2.1	Product planning	40
7.2.2	IEO Schedule	40
<b>08</b>	<b>About I-CHAIN</b>	<b>41</b>
8.1	Team members	42
8.2	Advisors	43
<b>09</b>	<b>Disclaimer</b>	<b>44</b>
9.1	Notice to Residents of the United States	47
9.2	Notice to Residents of Canada	47
9.3	Notice to Residents of China	47
9.4	Notice to Residents of the United Kingdom	47
9.5	Notice to Residents of Other Countries	48





# 01

## INTRODUCTION

# 1. Introduction

The current digital advertising industry has many problems. It is a monopoly, full of fraud and it is not transparent and dishonest. At the same time, the digital advertising industry is a huge market, many of the world's largest Internet giants are advertising companies in nature. The advent of blockchain technology brings hope to the advertising industry. Its decentralization, transparency, immutability and other characteristics are considered to be natural to solve the problems in the digital advertising industry. There are many projects that are trying to improve the digital advertising environment with blockchain technology now. These programs' attempts to change the status deserve respect and encouragement. But what we've found is that most of the current projects are fundamentally from an advertising companies' point of view, and they're missing the most important part, which is that advertisers have long exploited the value of their users' personal data. Because it's always been that way, very few people even realize it. But take the most common PPC ads in the digital advertising market as an example. Who will be responsible for the click and who will be responsible for the charge?

The i-Chain project has been developed with the aim of improving the digital advertising environment by applying blockchain technology. Its main mission is to end the exploitation of users' personal data by advertising agencies or data companies and to pay users for their data for the first time in history.



**Basic Function  
Module**

**Reward System  
Module**

**Advertising  
Module**

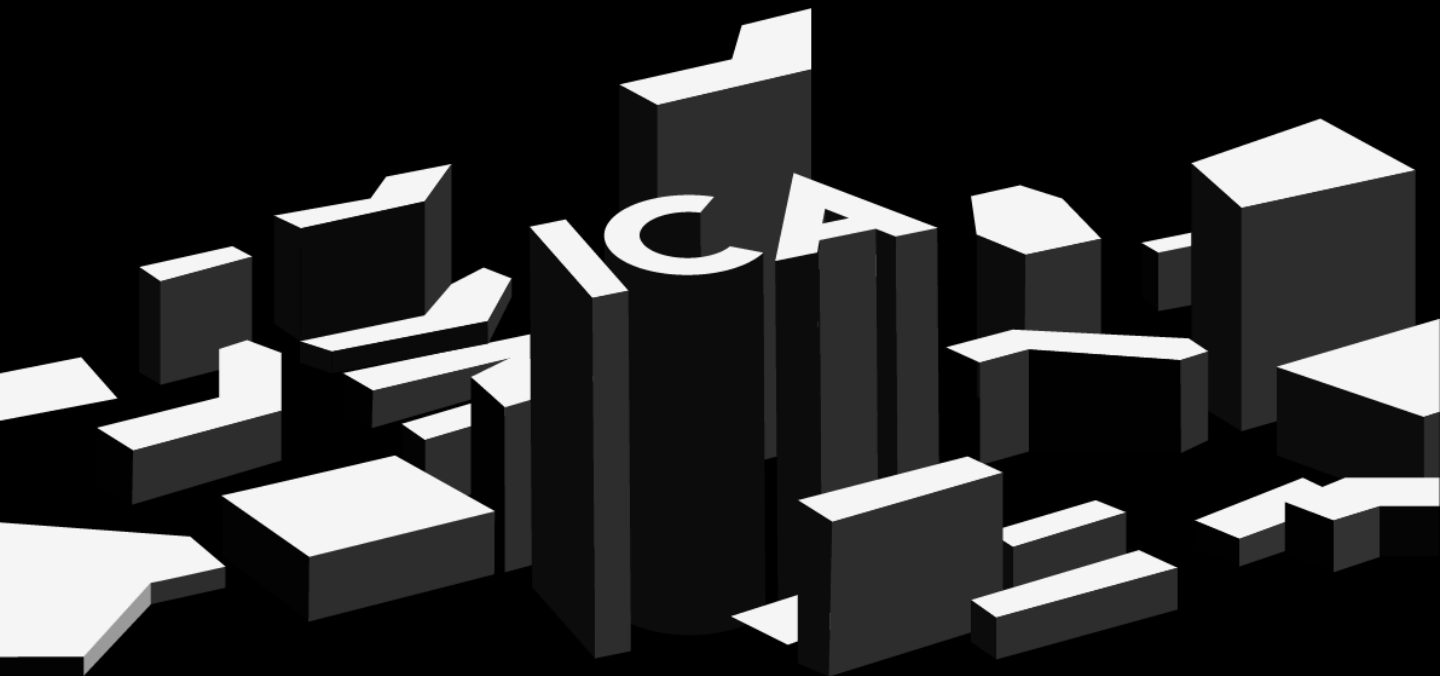
So how does it work? I-Chain project plan for the first stage is to develop a browser powered by blockchain technology. Unlike other browsers, the i-Chain browser will consist of three major functional modules: the basic function module, the reward system module and the advertising module. The basic module will use blockchain technology to encrypt and protect users' personal data, so users don't have to worry about their data security.



The reward system module will reward users with ICA ( i-Chain ads coin) according to the amount of data they contribute and other factors. ICA itself has value as it's a cryptocurrency. In addition, ICA can also be considered as the token for getting more reward. The advertising profit obtained by the i-Chain project will be distributed to users according to the number of ICA and other factors. Simply put, you use the i-chain browser, you get ICA, and then you get a share of the advertising profits from the project.

In terms of i-chain advertising profit, the advertising function module will provide real and effective advertising for advertisers. Thanks to the transparency, the immutability and security the blockchain technology inherently possesses, advertisers do not need to worry about fraud and other common problems in the field of digital advertising.

I-chain believes that the blockchain technology can really change the digital marketing world. Users personal data will be secured and reward, advertisers can get better performance. We will make it happen step by step.







# 02

## MISSION AND VISION

## 2. Mission and Vision

I-chain project's mission is to use blockchain technology to protect users' personal data, to realize the value of personal data, to rebuild the trust mechanism in the digital marketing field, to improve the efficiency of advertising, and to promote the healthy development of the digital advertising industry.

For ordinary netizens, their personal information will be protected. At the same time, users can gain profit from their own data and online behaviour. Besides that, everyone can have control over what kind of ads they want to receive.

For advertisers, they will save a lot of advertising budget and achieve better advertising effect.







# 03

## INDUSTRY BACKGROUND

## 3. Industry Background

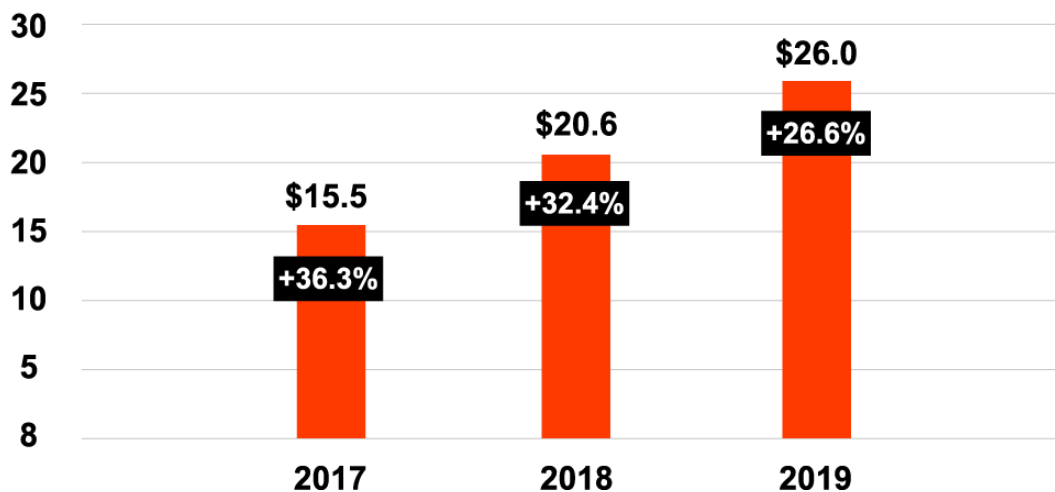
### 3.1 The value of users' personal data is exploited

The growth of the data and advertising markets partly reflects the growing exploitation of users' personal data by monopolies in digital advertising. At the moment, no advertising agency is really giving users back the value of their personal data.

Data is the fuel for economic development, which can promote the development of enterprises and significantly improve the effectiveness of digital advertising. As a result, the global data market is a rapidly growing market that will reach a size of about \$26 billion by 2019.

#### *Global data market growth 2017-2019 (\$ billions)*

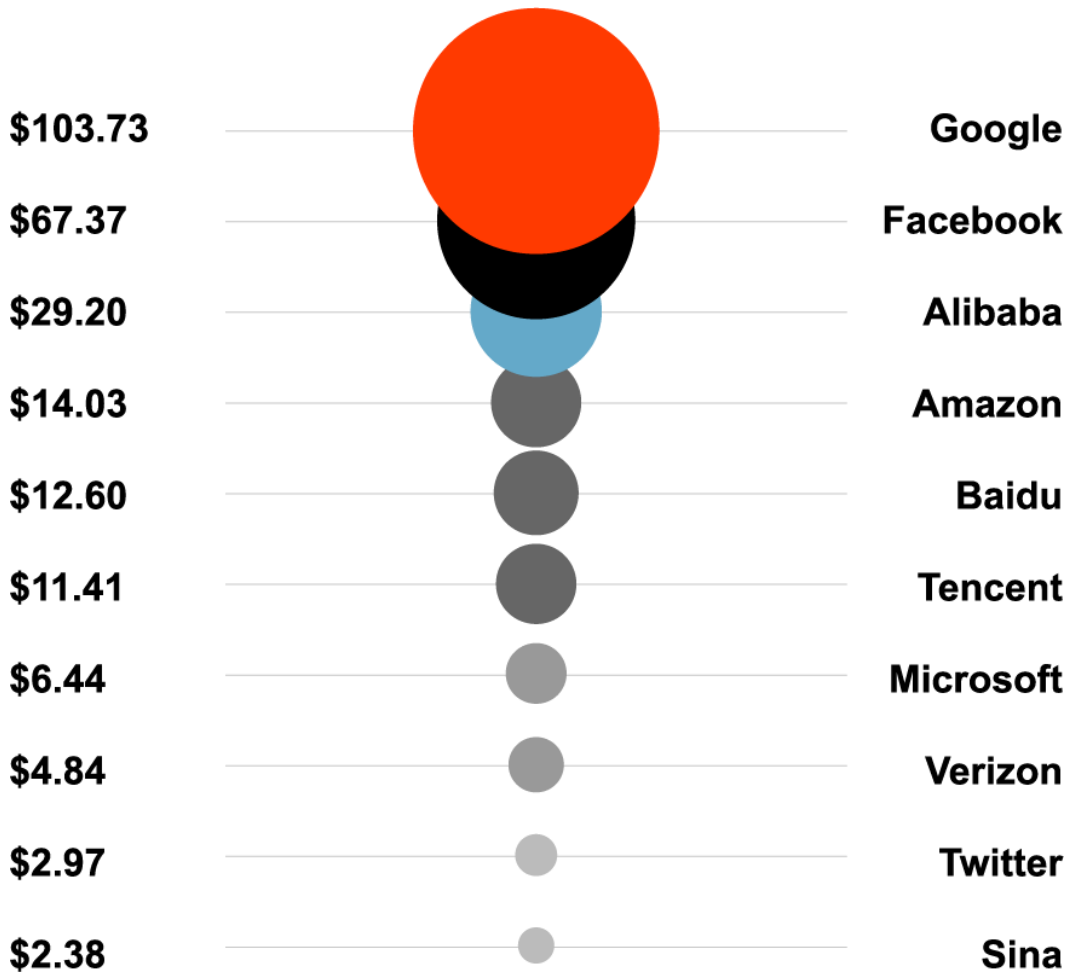
##### World



Data is a fuel of our century. It can significantly improve data-driven businesses and the effectiveness of online campaigns. That is why the global data market is growing rapidly in double-digit rate. In 2017 its value exceeded \$15 B and in 2018 it will reach \$20.6 B, which is a growth of 32.4%. This upward trend is stable and will continue in 2019 when global spending for data will hit \$26B.

While the data market is booming, the digital advertising market is also expanding, which has brought huge advertising profits to some Internet giants. Google is expected to make a net profit of more than \$100 billion from advertising revenue in 2019. While advertising giants celebrate rapid growth in advertising revenues, they ignore or hide a serious problem: the exploitation of the value of users' personal data.

**Major Global Digital Ad Sellers**  
**2019 net digital ad revenues ( billions )**



Note : includes advertising that appears on desktop and laptop computers as well as mobile phones, tablets and other internet-connected devices, and includes all the various formats of advertising on those platforms; net ad revenues after companies pay traffic acquisition costs ( TAC ) to partner sites; Google includes YouTube advertising revenues; Facebook includes Instagram advertising revenues; Microsoft includes LinkedIn advertising revenues  
 Source : eMarketer, February 2019





The value of digital advertising is partly the environmental value of advertising for media and partly the data value of users. Advertising suppliers will collect and analyze users' personal data, and then make effective advertising plans for advertisers. Only in this way can advertisements have good effects. In this process, users' personal data plays an extremely important role. So, because users give the value of their personal data, they deserve a share of advertisers' advertising budgets.

Personal data of users are used in all aspects of digital marketing, the programmatic buying advertising market has become one of the important application scenarios of data trading due to its extreme dependence on data. Programmatic buying advertising changes the purchase of ads spots by advertisers in the digital marketing industry to the purchase of potential users, which is the characteristic of programmatic buying advertising. From its advertising concept of buying potential users rather than ads spots, programmatic buying ads must be based on the analysis of users' personal data. America, the world's biggest data market, is also growing at a breakneck pace. But as advertising companies' profits grow, the value of users' personal data is not being compensated, so users' personal data is being exploited even more.

### ***Programmatic market size in the US 2017-2019***

2017		2018		2019	
Value	% Change	Value	% Change	Value	% Change
<b>\$32,561.4</b>	<b>27.8%</b>	<b>\$39,102.2</b>	<b>20.1%</b>	<b>\$45,722.1</b>	<b>16.9%</b>

Values in millions

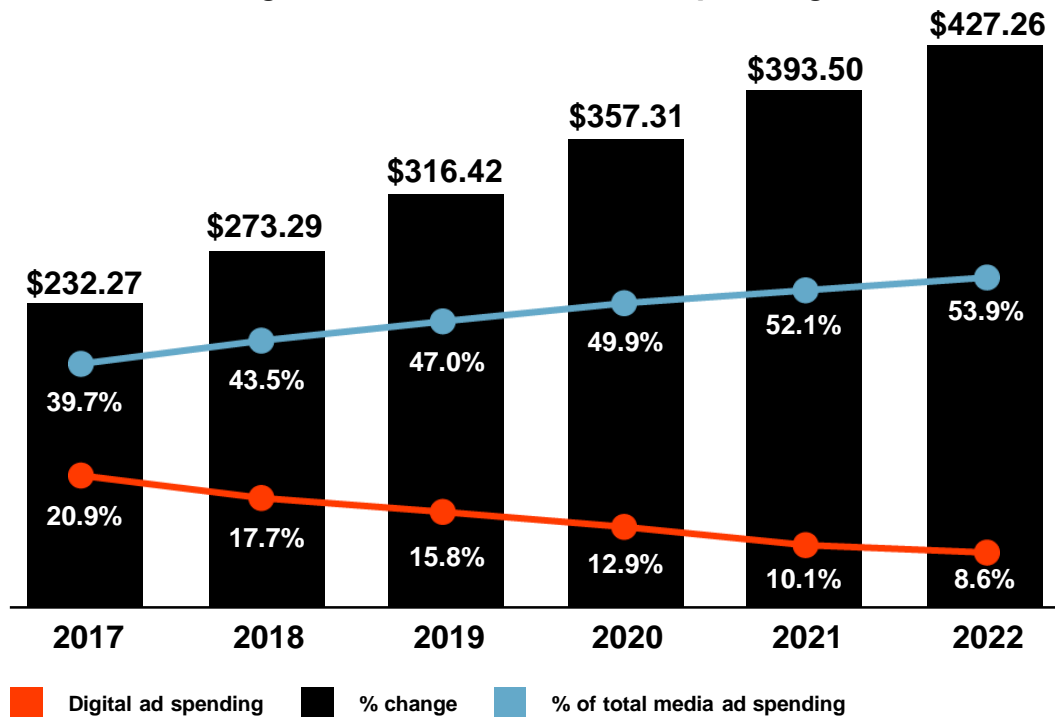
Where there is exploitation, there is resistance, and the average user is not stupid enough to realize that they are being exploited by advertising companies. More and more users begin to pay attention to personal data security and privacy security. More and more users choose to block browser cookies or use private browsing mode without leaving any data. What's more, more and more netizens choose online advertising blocking software to fundamentally reject the occurrence of digital advertising.

But is this the best solution? Not necessarily. Users' data will no longer be accessed by advertising companies, or even users will no longer accept any form of digital advertising, which will lead to a substantial reduction in media operating income, and even the inability to maintain the operation of the project. In this way, the function or project of providing network services for users will disappear. This vicious circle is not acceptable to everyone. Therefore, our problem is to find a reasonable benefit distribution mechanism to ensure the sustainable and stable development of all stakeholders on the premise of ensuring the security of user data and realizing the value of user personal data.

### 3.2 A terrible waste of advertising budget

Since the advent of Internet advertising, the global digital advertising industry has maintained a steady and rapid growth. It is expected to reach half of the total media advertising share for the first time in 2020. More and more brands and advertisers are willing to spend their money on digital marketing.

#### *Digital Ad Spending Worldwide, 2017-2022* Billions, % change and % of total media ad spending



Note : includes advertising that appears on desktop and laptop computers as well as mobile phones, tablets and other internet-connected devices, and includes all the various formats of advertising on those platforms; excludes SMS, MMS and P2P messaging-based advertising  
Source : eMarketer, March 2018



**Countries that Will Hit at Least 50% Digital Ad Spending in 2019**  
**% of total media ad spending in each country**

	2018	2019
China*	65.3%	69.5%
UK	63.8%	66.4%
Norway	61.7%	65.5%
Ireland	58.8%	62.6%
Denmark	57.8%	61.1%
Sweden	56.3%	60.3%
Australia	55.6%	57.1%
US	48.6%	54.2%
New Zealand	51.8%	54.0%
Canada	50.2%	53.5%
Netherlands	47.8%	52.6%
Russia	45.1%	50.0%

Note : includes advertising that appears on desktop and laptop computers as well as mobile phones, tablets and other internet-connected devices, and includes all the various formats of advertising on those platforms; excludes SMS, MMS and P2P messaging-based advertising; \*excludes Hong Kong  
 Source : eMarketer, February 2019

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But in the background of the continuous development of the data market, there are serious problems in the data trading. For example, the owners of the data did not trust each other before, so the sharing and application of the data could not be realized. The value of data is not really reflected. The data of various media or data companies are limited and unwilling to share with each other because there is no way to guarantee the security of the data. This limits the development of all stakeholders in the field of digital marketing. For example, it is difficult for advertisers to obtain comprehensive attributes of the crowd when they are making an advertising plan, which results in decreased ROI and the waste of budget. False data and the difficulty of verifying data are also an important problem facing the data market.

So are all budgets being used correctly in the growing digital advertising market? From a large number of reports, we know that in the actual digital marketing market there is a lot of traffic fraud, intermediary advertisers to waste advertising budget, which leads to a large loss of advertising budget, advertising effect is poor. In this case, advertisers have to spend extra money to monitor ads, filter fake traffic, and even work with third-party companies to evaluate media quality, which makes advertising budgets even more wasteful. However, the monitoring methods of third-party monitoring companies also need to be considered, which forms a vicious circle that hinders the development of digital marketing and adversely affects all stakeholders in the field of digital marketing.

In the digital advertising industry, there is a saying that "half of the advertiser's budget is wasted". A recent study found that the average advertiser thinks this is a waste of about a quarter. The survey found that some advertisers even believe that 80 to 100 percentages of their advertising budgets are wasted. Advertisers who participated in the survey believe that the main reason for the waste of advertising budget is the inefficiency caused by experiments and long-term agreements, but this reason is only one of the multiple factors of advertising waste. A study of fake traffic found that 20% or more of advertising budgets could be wasted on all forms of fake traffic. When you add in the high ads commissions and other fees paid for advertising agencies, the wasted budgets of advertisers can be half or more in some cases.

## **Percent of Their Marketing Budget Lost on the Wrong Channels or Strategies According to Marketers Worldwide, Jan 2018**

**% of respondents**

0%-20%	50.3%
21%-40%	30.0%
41%-60%	12.2%
61%-80%	4.6%
81%-100%	2.9%

Source : Rakuten Marketing, "What Marketers Want in 2018; Five Strategic Opportunities for 2018" conducted by Morar HPI; eMarketer calculations, March 13, 2018

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Therefore, to find a more effective way of digital advertising in order to reduce the waste of advertising budget and improve the effectiveness of digital advertising has become an urgent problem for advertisers in the field of digital marketing.

### **3.3 Problems we have to solve**

Since the advent of Internet advertising, the global digital advertising industry has maintained a steady and rapid growth. It is expected to reach half of the total media advertising share for the first time in 2020. More and more brands and advertisers are willing to spend their money on digital marketing.





# 04

## SOLUTION DESIGN

## 4. Solution Design

It has been several decades since the birth of the Internet, and the development of blockchain has just begun. It will be very difficult to solve the problems of the digital advertising industry by using blockchain technology. The i-Chain project also clearly recognizes this, so we will start with small scale trials and implement problem-solving in stages. In the first phase, the i-Chain project will develop a browser.

I-chain browser and i-chain project have the same name. It is a browser powered by blockchain technology. In addition to the basic functionality module, the i-chain browser also has an advertising module and a reward module. I-chain hopes to achieve transparency in the field of digital advertising through the i-Chain browser and build a digital advertising media community that is self-governed by ordinary users. Then, advertisers can get real and effective traffic, greatly improve the effectiveness of advertising. For the first time in history, users can make money from their own data when they surfing on the internet. This value was exploited for a long time by various advertising agencies and middlemen. At the same time, users can also control the ads they will view by setting them in the advertising function module of the browser. This is to a certain extent the input of personal data, will make advertisers get better advertising effect!

## 4.1 I-CHAIN browser

I-chain browser consists of three main modules: basic function module, advertising module and reward system module.

The basic function module will realise the following functions. First, to provide users with a safe, smooth and fast online experience. Second, encrypt users' personal data to ensure the safety of users' privacy. Third, according to the user's personal data, customize the exclusive homepage for the user, which will include the exclusive navigation bar and other functions to improve the user experience.

The function of the advertising module is, first, to let users see the advertising content they are interested in according to the data analysis. Second, users may actively choose the type of ads they want to see through settings in the browser. Thirdly, the browser will provide advertising services for advertisers. Advertising methods and advertising styles will vary. For example, App screen-opening advertisement, fixed advertisement position on the homepage of the browser, a pop-up advertisement when users browse content, etc.

The reward system module will reward users with ICA (i-Chain ads coin) after comprehensive consideration of factors such as the amount of data contributed by users, the number of times they click on the ads and the time spent they use i-Chain browser. In addition, the reward system module will regularly distribute the advertising profits obtained from the i-Chain project to users according to the number of ICA and the time these ICAs had been held by users and other factors. The advertising profit may be fed back to customers in the form of other mainstream digital currencies, such as bitcoin. Users can also use the reward system module as a digital currency wallet, secure storage of ICA and other possible mainstream currencies.

## 4.2 Optimize user advertising experience

I-chain browser is developed based on the blockchain technology. The decentralized and anonymous encryption function of the block Chain will guarantee the absolute security of users' personal data. After obtaining the user's permission, the user's personal data will be Shared through encryption, and the i-Chain browser will push relevant advertisements to users through data analysis, and the advertisements should be that the user is really interested in. I-chain will also optimize the setting of advertising frequency, advertising style and other relevant content through big data analysis, which will greatly reduce the resistance to ads, improve users' acceptance of advertising, and promote the further sharing of data. Users can also set the categories, products and even brand preferences of the advertisements they want to receive. I-chain will present ads according to the user's Settings, to further improving the user's advertising experience.

## 4.3 Optimize advertising effectiveness

Optimize advertising effectiveness and reduce advertising budget waste.

For advertisers, the traceable and untampered nature of blockchain distributed billing guarantees the authenticity of all traffic in the i-Chain browser. If advertisers choose to place advertisements in the i-Chain browser, they do not need to worry about traffic fraud and can get more real and comprehensive user portrait data, which plays an important and positive role for advertisers.

The concept of i-Chain advertising community makes the traffic of i-chain inherently higher in quality, and i-chain users have a higher degree of acceptance of ads. I-Chain analysis of user data (including user input data) will help advertisers achieve better performance.



The i-chain advertising operation team will segment and optimize the display frequency, location and style of advertisements through big data analysis, which will also ensure the good ROI of ads. I-chain will also provide advertisers with data storage and analysis services, which will effectively improve advertising effectiveness and reduce advertising budget waste.





# 05

## TECHNICAL IMPLEMENTATION

## 5. Technical Implementation

### 5.1 Digital currency wallet embedded

The digital currency wallet is a software program that stores encrypted tokens and community licenses. In form, much like an online bank account, there are also customer ids, accounts and passwords. The community wallet password is a "private fingerprint" that allows you to manage authorization and view wallets and benefits.

Simply put, having multiple security technologies to keep your digital assets in custody and to view the relevant interests. The private key is stored securely locally, eliminating the security risk caused by the storage on the network. And can provide 256-bit encryption backup service, support to create community wallet data link address, or use their own data link digital account address for import, master their own data assets.

For digital assets, the private key is the certificate of this digital asset, which will cause irreparable loss if lost or stolen. Therefore, the management of the private key is the most important. In this system, the user has full control of the private key, providing multiple signature technical guarantee and authorization verification. Mnemonic word backup strategy, multi-signature anti-theft. Secondary verification can be carried out through mobile phone verification code, fingerprint and other ways to further improve security.

## 5.2 Browser

The browser is a tool for users to access internet-related resources, including pages, images and even files. When the user visits the web page, the data is encrypted and transmitted to the data bank by invoking the blockchain service interface. Compatible with modern Web standards for HTML, XHTML, CSS, XML, XSLT, DOM0/1/2, and JavaScript.

In terms of efficiency and stability, the use of prefetch engine acceleration, preloading resources, more than double the average speed. In the picture loading, use special acceleration technology, greatly improve the picture opening speed. Flash acceleration technology is used to effectively reduce Flash stagnation. And based on P2SP technology, through multithreading and network layer optimization, technically ensure the stability of page browsing and high-speed download.

In terms of Security, technical means such as CSP (Content Security Policy) can effectively solve a series of Security problems such as XSS (Cross-Site Scripting) cross-site Scripting attack, and prevent the disclosure of sensitive information such as Cookie, user name and password.

## 5.3 Safety mechanism

- **Low Cookie security**

On Cookie security, add a tamper-proof mechanism. The server can generate a signature for each Cookie item. Since the corresponding signature cannot be generated after the user tampers with the Cookie, the server can know that the user has tampered with the Cookie. Add encryption mechanism to encrypt information stored in cookies. Set the HttpOnly property to prevent Cookie values from being read by page scripts. Set the secure property to ensure that data transfer between the cookie and the WEB server is encrypted. Cookie authorization mechanism is included. Local cookies are encrypted, and smart devices can choose whether to save cookies or not. The validity period of the cookie is set, and the system determines whether the timer is timed out or not.

- **Privacy to prevent browser hijacking**

Prevent modification of default home page, modification of search engine results and other malicious script running, prevent Browser Hijack.

- **Intelligent behaviour monitoring**

The browser behaviour monitoring engine is distributed in various key points in the kernel of the system to complete the behaviour acquisition and monitoring functions of the web browser process. The function of the monitoring engine depends on the construction of the behaviour sandbox, and the structure in the whole behaviour sandbox is organized by the thread of the creative relationship of the process. The following monitoring points are included:

A. Process monitoring, responsible for the collection and control of browser process behaviour.

B. file monitoring, monitoring all file access behaviour of the browser process and restricting behaviour according to use policies.

C. Registry monitoring, monitoring all registry access behaviour of the browser, especially the monitoring of startup items.

- **Data encryption sandbox**

Through data encryption sandbox, prevent virus Trojan through the browser way to infect the local, its main mechanism is through the process and memory and other resources isolation, control the process in the sandbox to the local system resources call. Sandbox isolated system environment created by virtualization technology. Run the risky program in a sandbox that records the various actions of the program as it runs. All operations are virtual in the sandbox, and real files and registries are not altered, which ensures that viruses cannot damage the system by altering key parts of the system. Sandbox file operations, both executable and non-executable: all changes to files and systems made by processes on the secure desktop are redirected. Redirected files are encrypted, even if the redirected files are leaked, there is no security risk. After the user logs out, all the redirected files are deleted, meaning that all file operations performed on the secure desktop have no changes to the default desktop.

The kernel engine refers to the following architecture diagram of Webkit:

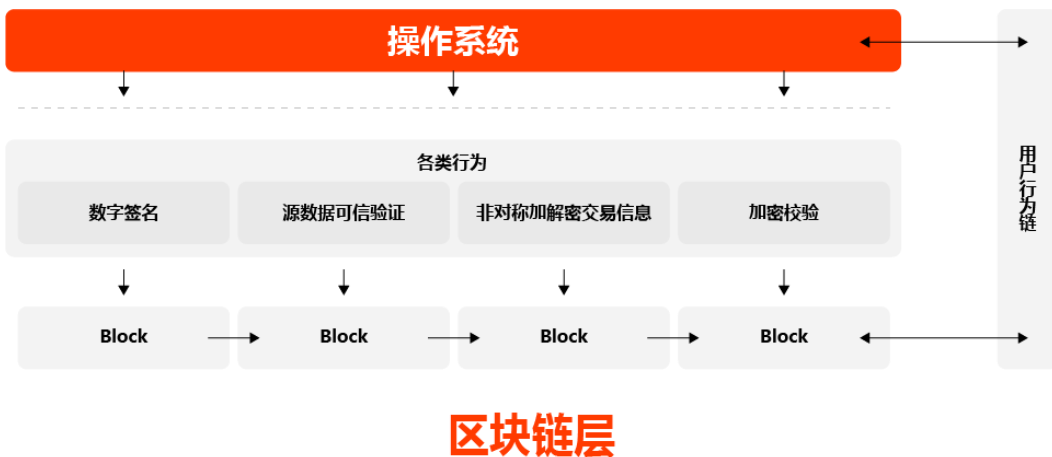




## 5.4 Data security mechanism

- **Browsing traces are stored in the blockchain**

In the process of surfing the Internet, users generate private browsing track, which is saved in the form of data encryption in the blockchain. As the core Technology of Distributed Ledger Technology (DLT) platform, blockchain emphasizes the uniqueness of Hash. Each block and Hash is one-to-one, and each Hash is computed by the block header using SHA256. Because the header contains the Hash of the current block and the Hash of the previous block, if the contents of the current block are changed or the Hash of the previous block is changed, the current block Hash will be changed. If someone modifies a block, the Hash for that block changes. In order for the later blocks to connect to it, the person must modify all the later blocks at the same time, otherwise, the changed block will be off the blockchain. Due to the huge demand for the computing power of block computing, it is almost impossible to modify multiple blocks at the same time, so as to ensure the absolute soundness of data, and guarantee data privacy through block data encryption technology encapsulation. In addition, all data storage and records have the user's digital signature as a certificate. Unless the user himself, no third party personnel can get the data through forged signature and other hacker means to tamper with and use. Users themselves can easily view and authorize personal data in the APP through their unique digital signature.



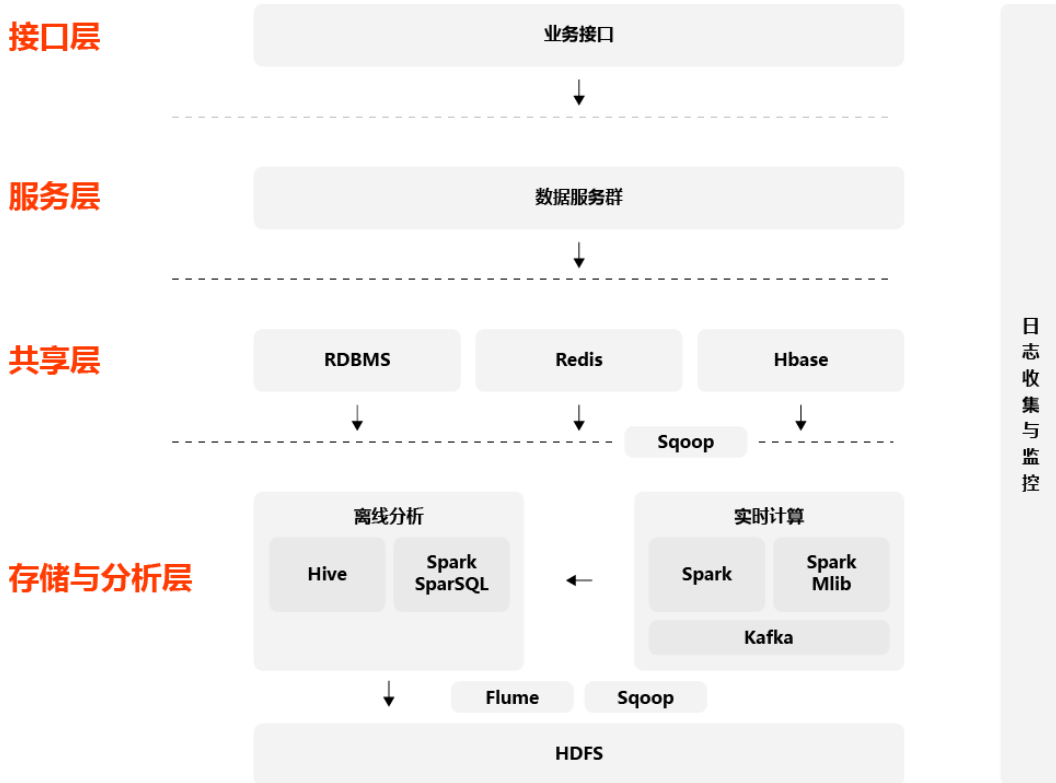
- **Basic data encryption transmission**

In transit, the data is not persisted. Ordinary HTTP transmission protocol USES clear text to transmit information, which has the risk of information eavesdropping, information tampering and information hijacking. And the APP will this part of the air data using HTTP + SSL for processing, the way on the basis of the rules of HTTP added a cryptographic protocol Layer of hypertext transfer protocol, which is the Secure sockets Layer (Secure Socket Layer), with authentication, information encryption and integrity checking function and can be used to block chain independently encrypted, key generation and records can be added to the block in the chain. Thus the data in the network transmission anti-tamper and encryption processing. The following is the communication sequence diagram corresponding to this mode:



## 5.5 Data bank

Data Bank can filter and integrate various business data, which can be used for data analysis, data mining and data reports. Here is the basic architecture diagram:



- **Storage solutions for data Banks**

A solution to store user behaviour chain data based on big data + blockchain architecture. Blockchain, with its credibility, capriciousness, security and immutability, as well as private intelligent contract, frees more data under monitoring and authorization, promoting the massive growth of data. The traceability of blockchain enables the records of every step of data collection, trading, circulation and calculation analysis to be retained on the blockchain, which enables the quality of data to be endorsed with unprecedented strong trust, and guarantees the correctness of data analysis results and the effect of data mining. Blockchain provides the integrity and legitimacy of the ledger, while big data provides the storage of massive metadata and flexible and efficient analysis technology.

- **Technology and principle of big data storage**

Hadoop distributed file system (HDFS) is used for big data storage. On the support of big data, HDFS can store terabytes or petabytes of data and detect and quickly respond to hardware failures. The ability to store and process data bit by bit ensures high reliability. Moreover, the system allocates data among available computer clusters to complete computing tasks, which can be easily extended to thousands of nodes to ensure its high scalability. Data can be dynamically moved between each node to ensure the dynamic balance of each node, so its processing speed is very fast, that is, the so-called efficiency; Highly fault-tolerant aspects can automatically save multiple copies of data and automatically redistribute failed tasks.

In principle, HDFS adopts the master-slave Master/Slave Slave structure model. An HDFS cluster is composed of one NameNode and several DataNode. The NameNode serves as the main server to manage the namespace of the file system and the access operation of the client to the file. The DataNode in the cluster manages the stored data. HDFS allows users to store data as files. Internally, the file is divided into several data blocks and these blocks are stored in a group of data nodes. The NameNode performs filesystem namespace operations, such as opening, closing, renaming files or directories, etc. It is also responsible for the mapping of data blocks to a concrete DataNode. The DataNode handles file read and write requests from file system clients and creates deletes, and copies data blocks in a uniform schedule with the NameNode.

## 5.6 Each layer in the basic architecture

In the basic architecture of the storage solution, the interface layer USES Rest API + OAuth token authentication to access business logic. The service layer provides a variety of data persistence services, including data query, data processing and so on. The sharing layer USES Sqoop (data import and export tool) to synchronize data in RDBMS and NoSQL to HDFS and has Redis as a cache to improve access performance. HBase, a distributed, column-oriented open source database, is used for big data that need random access, real-time reading and writing. The storage layer USES Flume (log data acquisition framework) to collect log information. Use SparkSQL operational Hive (a tool for data collation, special query, and analysis storage of datasets in Hadoop files) and cache commonly used calculations in Redis. Add Kafka to message system to prevent data loss.

ELK (ElasticSearch + Logstash + Kibana) can be used globally as a log-centralized management and analysis system, providing ElasticSearch, service diagnosis, data analysis and other services.



## 5.7 Data security and privacy

- **Data encryption**

Special algorithms are used to change the original information data to make it unreadable or meaningless (digital encryption technology) so that unauthorized users can obtain the encrypted information but still cannot understand the content of the information without knowing the decryption method. The encryption is based on the mathematical encoding and decoding of information, which is the basis of data privacy protection.

- **Access control**

In combination with the private key of blockchain and the flexibly configured autonomous access control (DAC), mandatory access control (MAC) and role-based access control (RBAC) access control policies, the effective isolation and integrity protection of different levels or categories of information of multiple users are ensured.

- **Data disaster backup**

The database USES the method of multi-machine synchronous hot backup to set up multiple disaster recovery data centre in various places. When certain business is unavailable due to a data centre failure, the business can be automatically switched to the standby data centre within the specified RTO(Recover Time Objective) Time. In terms of the specific implementation, GTM(wide-area traffic manager) is deployed in both main and standby data centre, and information is synchronized between GTM and GTM. GTM detects the application services of the centre respectively and determines the availability of application services based on the server status of GTM. When the GTM or data centre link appears DOWN, the service will be automatically switched to the disaster recovery data centre. The hot standby data centre realizes the automatic switch between main and standby data centre through GTM technology.



# 06

## OPERATING PLAN



## 6. Operating Plan

### 6.1 ICA — I-CHAIN ads coin

ICA, I-Chain Ads coin, which is the digital encrypted Token released by the i-Chain project. It is an Ethereum supported cryptocurrency with the ERC-20 standard. Ethereum explorer can be used to view all ICA related records. Users can obtain ICA by using i-Chain browser. The sooner they download and start using the i-Chain browser, the more ICA they are likely to get. The longer they use the i-Chain browser, the more ICA they will get as a reward. Users can also participate in ICA token sales to buy ICA. In addition to the value as a cryptocurrency, ICA can also be used to purchase or deduct services or products such as senior members within the I-CHAIN ecosystem. ICA's token economic plan is as follows:

Total token supply	7,000,000,000
Token for sale	1,400,000,000
Target token sales	US\$ 7,000,000
Token for private sales	0
Target private sales	0
Token for IEO	1400,000,000
IEO target	US\$ 7,000,000
Price per token	US\$ 0.005



Funds management from token sales :

R & D	40%
Marketing & Business Development	30%
Operations	20%
Legal and Accounting	7%
Others	3%

## 6.2 Use of token reserve

The I-CHAIN team wants everyone on the planet to have an ICA token that can be used to realize the value of personal data. So the I-CHAIN team will periodically repurchase ICA back for distribution to new I-CHAIN community members. In the early stages of I-chain development, reserved tokens will be used to reward users of the I-chain browser, also, contributors to the I-chain community. The reserved tokens will also be used to ensure the healthy development of the I-chain project and the team.

## 6.3 I-Chain revenue model

I-chain accepts payment in cryptocurrencies. The revenue from the i-Chain project, that is also the sources of revenue for the user may be:

- Linking i-Chain browser to AD networks such as Google AdSense makes money;
- Receive direct advertising from brand customers to create revenue;
- Provide navigation services for brand companies to create revenue;
- Provide data services for advertisers to gain revenue;
- Various other possible ways of earning income.

## **6.4 Community committee**

I-chain plans to set up a community committee in the future. Users will elect members of the community committee through voting. Users with more ICA will get more weight in voting and are more likely to become community committee members. The community board will be involved in managing operational management decisions for the i-Chain browser and will oversee the user rewarding process. The community council regularly publicizes a series of operational activities in the i-chain community.

## **6.5 Risks and possible problems**

As the ICA can be obtained by browsing or clicking the ads, some users may regard this behaviour as mining, which will lead to more invalid or meaningless data generated by users to some extent. I-Chain will develop an intelligent data verification module to make fair and authentication of user data. Only personal data certified as valid data will be given ICA as a reward.

## **6.6 Others**

I-chain will host in-community events on a regular basis to promote community development. Such as lottery games, ICA can be used as lottery vouchers, winning users will be rewarded.





# 07

## **BUSINESS STATUS AND PLAN**



## 7. Business Status and Plan

I-chain is still in the early stages of the project, but it has made great progress. The initial team has been basically set up, the relevant technology development has been implemented, and cooperation agreements or partnerships have been signed with many related enterprises. Everything is moving fast.

### 7.1 Partners

#### 7.1.1 I-CLICK

As the only Nasdaq-listed digital marketing company in the Asia-pacific region, I-Click has many cooperative brand customers in the Asia-pacific region and even the world. The i-Chain browser will have the real and transparent traffic and data that I-Click needs. Similarly, I-CLICK will share many of the world's best advertisers with the i-Chain advertising community, which will undoubtedly ensure the smooth development of the i-Chain community in its early days. At the same time, the rich experience of I-click-interactive in the field of advertising marketing is also a booster for the development of the i-Chain project!

**To Be Continued...**



## **7.2 Business Plan**

### **7.2.1 Product planning**

September 2019, launch the public version of the i-Chain browser.

January 2020, launch the high-quality media alliance plan, and the i-Chain project will be expanded from a single browser to an advertising network;

July 2020, the i-chain advertising community plan will be launched. At that time, the i-chain project will introduce high-quality advertisers and relevant advertising practitioners into the community, thus forming a complete advertising ecology.

### **7.2.2 IEO Schedule**

September 2019, IEO



# 08

## ABOUT I-CHAIN

## 8. About I-Chain

### 8.1 Team members

- **Aaron Yu, CEO**

Master degree in marketing from Beijing university of aeronautics and astronautics and the University of Leicester. With nearly ten years of digital marketing experience. Before joining i-Chain, Aaron worked for the world's largest 4A advertising company as head of performance marketing.

- **Alvin Zheng, COO**

Nearly 20 years of experience working in the Internet industry He was a shareholder of Tengxin interactive, China's first listed digital marketing company, and a senior executive of a Nasdaq-listed company. Alvin has experienced the whole process of the development of digital advertising and has a deep understanding of the advertising ecosystem.

- **Rich Li, CTO**

Founder of HKLY, nearly 20 years of working experience, has a comprehensive technology background, proficient in all the work from the communication network to data software development, especially good at software application and development.

- **Susan Pan, CMO**

Professional digital marketing/thought leader with a diverse background serving Fortune 500 company clients to drive transformational results through the lifecycle of marketing. She has years of experience working in both the US and China markets, her domain of expertise resides in the areas of brand transformation, performance marketing, emerging technologies, and operational excellence.

- **Tony Xiang, Business Development Director**

5 years working experience as Dev role in Dell, Qihoo 360. Then start own company in the USA for office supply product, support TOP 5 brand company as their main supply partner. Good at the supply chain and 5 years E-Commercial business from 0 to top sales. Advanced member in several chambers of commerce. Have many connections in a different area and the government source.

## 8.2 Advisors

- **Eric Yao**

Graduated from California Institute of Technology (undergraduate), master's degree from the University of Washington, 22 years' research and development experience in Microsoft engineering institute in Seattle and China. He was a senior technical team manager in charge of Microsoft Office, office365, exchange, SharePoint and windows-related technology development.

- **To be continued ...**





# 09

## DISCLAIMER

## 9. Disclaimer

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- We do not make, and hereby disclaim, any representation or warranty with respect to the ICA, the Platform and the Marketplace (such as merchantability or fitness for particular purposes), except those expressly specified in this White paper. Each purchaser's decision to participate in the sale and purchase any ICA shall be made based on his/her own knowledge of ICA and the information disclosed in this White paper. Without prejudice to the generality of the foregoing, each purchaser will, upon the launch of the ICA, accept ICAs on an "as is" basis, irrespective of the technical specifications, parameters, performance or function thereof.



- Any malfunction, breakdown, collapse, rollback or hard-forking of the original public chain that ICA relies on;
- Failure of ICA to meet any specific purpose, or its unfitness for any specific use;
- Utilization of the proceeds raised through the sale;
- Failure to promptly and completely disclose any information relating to
- The development of the Platform and the Marketplace;
- Any purchaser's divulgence, loss or destruction of the private key to his/her wallet for cryptocurrency or cryptographic (in particular the
- The private key to the ICA wallet);
- Any default, breach, infringement, breakdown, collapse, service
- Suspension or interruption, fraud, mishandling, misconduct, malpractice, negligence, bankruptcy, insolvency, dissolution or winding-up of any third-party crowdfunding platform or exchange for ICA ;
- Any difference, conflict or contradiction between this White paper and the agreement between any purchaser and any third-party crowdfunding portal;
- Trading or speculation of ICA by any person;
- Listing or delisting of ICA on or from any exchange;
- ICA being classified or treated by any government, quasi-
- Government, authority or public body as a type of currency, securities, commercial paper, negotiable instrument, investment instrument or otherwise that results in it being banned, regulated or subject to certain legal restrictions;
- Any damage, loss, claim, liability, punishment, cost or other adverse impacts that are caused by, associated with, in connection with, incidental to or relevant to the risk factors disclosed in this White paper.



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