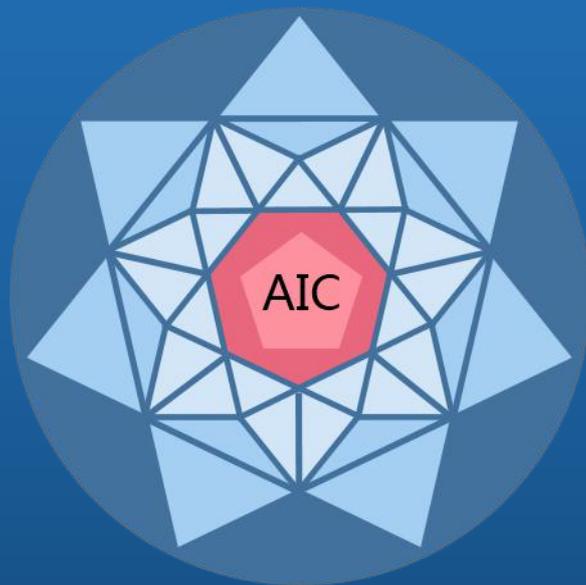


AIC

Artificial Intelligence Chain

Artificial intelligence technology
blockchain platform



AIC Foundation
September 2019

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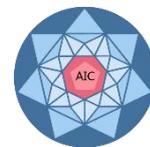
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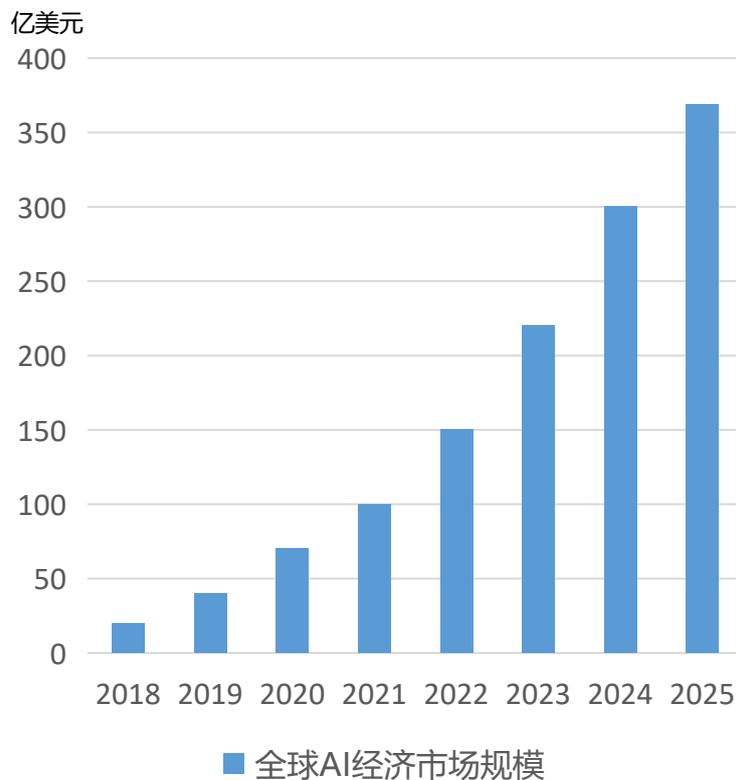
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Summary

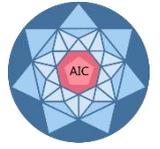


Artificial intelligence has become the core driving force of a new round of industrial transformation, which has a profound impact on the world economy, social progress and human life. Artificial intelligence must be the hottest industry in the future. According to data released by the Prospective Industry Research Institute, the world The scale of the artificial intelligence market will maintain an average compound growth rate of 50.7% in 2015-2025, and the scale is expected to reach US\$36.9 billion in 2025. In the future, it will stimulate artificial intelligence in many fields such as smart home, traffic monitoring, intelligent community and medical and health. Industrial Development.



The underlying technical logic of artificial intelligence is the combination of data + algorithms, forming a program model that supports thinking, perception and action to better serve humans. The essence of blockchain technology is encrypted distributed data storage books. The data is encrypted and distributed on multiple different servers. Only the licensed person can read and update, so you can create a tamper-proof database with high reliability. The security can be applied to the ethical aspects of AI technology, and the sensitive data is encrypted. The algorithm program built by AI technology can process the data while it is encrypted. Whether the decision formed by the AI algorithm model has data credibility, whether there is human fraud, it is necessary to conduct audit before application. If the decision is recorded in the blockchain in the way of data point-to-point, then the decision is audited. It will be much simpler, and blockchain technology can track and monitor AI decisions and gain public trust. The AI chain is a blockchain technology service platform specially provided for artificial intelligence technology developers. It relies on the intelligent protocol, infrastructure, open interface, main network deposit certificate function and AIC certificate of the AI chain platform to serve the artificial intelligence industry.

1. AIC vision



1.1 Background

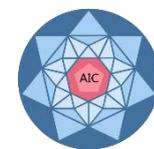
The birth of the blockchain marks the beginning of humanity to build a truly trustworthy Internet. By combing the rise and development of the blockchain, it can be found that the blockchain attracts attention in that it can establish reliable trust between peers in the network, so that the value transfer process removes the interference of the intermediary, and both the information and the privacy are protected. Both co-decision and protection of individual rights, this mechanism increases the efficiency of value interaction and reduces costs.



The development trend of blockchain in recent years mainly includes the following aspects:

Application mode upgrade--In view of the security of the blockchain and the increasing balance of data processing capacity on the existing network capacity, the future application of the blockchain will be based on the alliance chain, private chain or hybrid chain. The Bitcoin model increases the maintenance cost of the blockchain network and is not fully applicable to low value, low risk transactions. Considering the increase in efficiency and security, the future will be a chain of alliances, a private chain, or a hybrid chain of alliances and private chains.

Multi-centered - the future blockchain system architecture will be to build a trusted multi-center system that will be decentralized

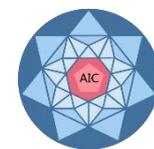


Each individual center is promoted to a unified multi-center with multi-participation, thereby improving trust transmission efficiency and reducing transaction costs, that is, establishing “trust” for meeting the occurrence and development of various activities in an information asymmetrical and uncertain environment. Ecosystem.

Breakthroughs in other industry applications--The application areas of blockchain will first be in the field of trusting the parties to the transaction, but it is not easy to establish areas of trust, such as finance, securities, insurance and other fields. As the popularity of applications and social awareness increase, the blockchain will gradually penetrate into all areas of society. For example, the blockchain has been initially applied to elections, corporate shareholder voting, and forecasting markets.

Socialization of Smart Contracts - In the future, all contractual agreements are intelligent, and smart contracts can guarantee the reliable execution of all agreements and avoid tampering, refusal and default. In addition to transforming tangible assets in society into digital smart assets for identification, authorization and real-time monitoring, blockchain can also be applied to intangible asset management in society, such as intellectual property protection, domain name management, and point management.

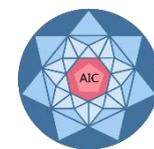




From the perspective of future development, as an interdisciplinary science, artificial intelligence technology involves many fields such as sociology, informatics, control science, and bionics. It is not only the essence of life science, but also the core of information science. It has a bright future. . Artificial intelligence technology also promotes the deep integration of various sciences and network technologies, solves the seemingly unsolvable problems and pain points of the Internet era, and brings the Internet into a new era of intelligent development, which greatly affects the network technology and information industry. The future direction of development.

Nowadays, AI artificial intelligence has begun to migrate to the decentralized side, which has spawned decentralized intelligence. In the field of unmanned driving, it is difficult to imagine that the road network information and vehicle information that are processed in real time during the driving process need to be transmitted to hundreds of kilometers, which is unimaginable and unacceptable. In the future, when the application scenario is more decentralized, the computing model needs to be closer to us, with low latency, locality and location awareness.

The combination of artificial intelligence and blockchain will greatly promote the development of scientific and technological innovation. Artificial intelligence is the productivity of the future technological society. It can improve the efficiency of production, liberate human hands, and enable us to obtain more wealth faster and more effectively. The social value of blockchain lies in the transformation of production relations and promotes the division of labor. Artificial intelligence and blockchain can complement each other based on their respective advantages. Their combination is of revolutionary value for the development and progress of human society.



1.2 Goal

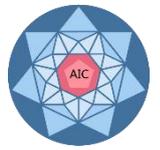
The AI chain will be an intelligent AI service tool and platform that helps each AI developer or team to organize and allow knowledge and data to be precipitated and accumulated, including smart parks, medical education, smart transportation, robots, etc. The industry will form a complete technical ecosystem. In the future, AIC will provide a decentralized economic platform to directly link AI services with users to form a convergence effect, and to serve the intelligent economy through intelligent technology.

The AI Chain Smart Contract is designed for artificial intelligence technology, including two modules of data management and algorithm model. It provides mature infrastructure and development interface for artificial intelligence program development and deployment, and uses blockchain data structure to verify and store data. Distributed node consensus algorithm to generate and update data, use cryptography to ensure data transmission and access security, use intelligent contracts composed of automated script code to program and operate algorithmic program operations, is a brand new distributed The infrastructure and computing paradigm, the artificial intelligence algorithm model is built on the blockchain architecture is the core module of the AI chain, which is different from the traditional blockchain protocol. The AI chain smart contract uses the AMOP protocol for inter-block transmission to solve the delay and throughput problems that will occur in the big intelligence computing management in the artificial intelligence industry to improve the operation and maintenance service capabilities. In terms of infrastructure, we plan to use the world's major cloud service providers to build public clouds. The main network nodes are distributed in various places around the world, and through the micro-service architecture, an open development environment is realized.

AIC is a blockchain platform designed for the development of service applications for artificial intelligence technology. The features are as follows:

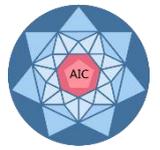
- Friendly developer blockchain bottom platform
- Efficient smart contract agreement
- Open microservice architecture
- Stable deployment interface
- Mature operation and maintenance services

"In the long run, artificial intelligence and automation will replace most of the human sense of purpose." Matt Bellamy



1.3 Development route





2. Technical white paper

2.1 System structure

In the entire system design, in order to ensure the safe access of AI projects and the operation of trusted programs,

The architecture design of the AI chain main network mainly considers the following issues:



Sensitive data Encryption security



Algorithm model review Credibility



AI computing Timeliness



Smart contract Callable



Architecture application Scalability

AIC application layer

 SDK
  Infrastructure
  Interface service

AIC data layer

 Data protocol
  Hadoop big data processing platform

AIC service layer

AIC Workbench working in the middle

Decentralized storage (IPFS Metadisk)

Intelligent algorithm consensus (DPOS Paft Raft Algorithm mechanism)

The core architecture design of the AI chain includes the AMQP protocol, the AIC Workbench working platform, and the three core components of the smart contract.



AMQP protocol

AMQP is an application layer standard advanced message queuing protocol that provides unified messaging services. It is an open standard for application layer protocols and is not subject to different development languages.



AIC Workbench

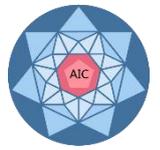
AIC Workbench is the infrastructure layer of the AIC main network platform. It is an infrastructure for building large-scale intelligent services. It provides step-by-step construction and lifecycle management services for the algorithm models required by intelligent business processes.



Smart contract

After the development and optimization of the AI chain, the intelligent contract is a complete system of high availability, high concurrency, multi-language, cross-contract, cross-virtual machine, etc., realizes the interaction between the virtual machine and the blockchain account, and enhances the call. Features

2.2AIC Technology Lab



AIC's joint blockchain laboratory will be led by Thomas Dyrberg, the core developer of the AI chain, to study the core technical issues of a series of blockchain+AI smart projects. Since 2006, Thomas has been involved in technical research in cryptography. He has been involved in the research of the earliest bitcoin cryptography. Thomas has been working to combine the core algorithm of Bitcoin with AI technology to re-innovate, to break through the limitations of the blockchain itself and to empower more powerful AI industry projects.

Research

A new blockchain architecture based on trusted hardware and software, application and artificial intelligence related projects, to provide a universal high-performance solution to solve the computational complexity and security protection problems of large data, high sensitivity and high timeliness requirements.

Applications



Intelligent
monitoring



search
engine

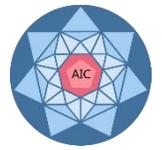


Wisdom
education



other
projects

2.3 Intelligent protocol

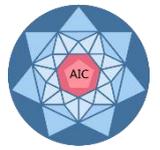


A smart contract is a computer protocol designed to disseminate, verify, or execute programs in an informational manner. Smart contracts allow for trusted transactions without third parties, which are traceable and irreversible. The AI chain intelligent contract is based on ERC20 for security protection integration and performance optimization, with deterministic, high performance and scalability features. The interaction between the virtual machine and the blockchain book is provided for the artificial intelligence algorithm program access, and the calling function of the smart contract is enhanced.

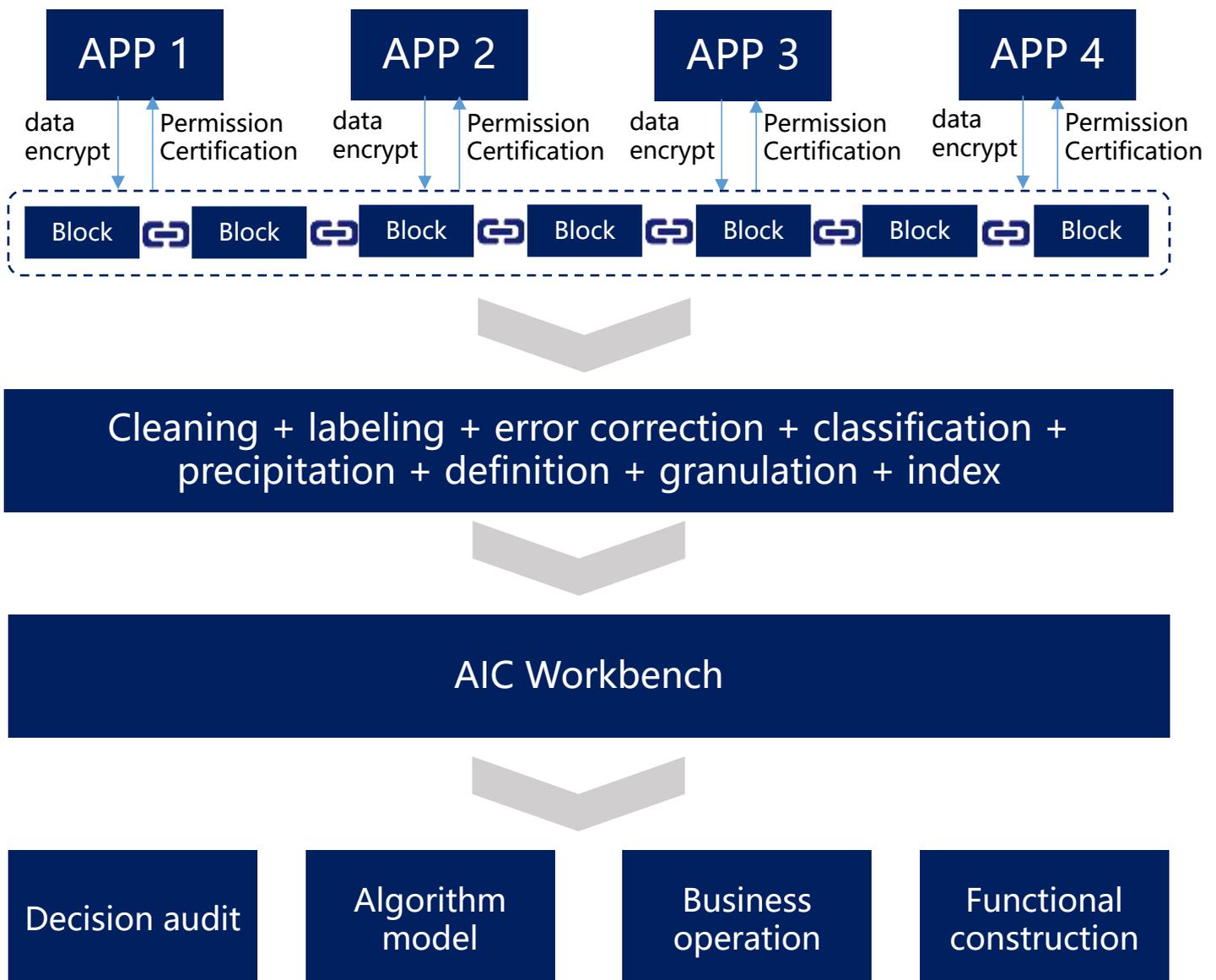
After the development and optimization of the AI chain smart contract, it is a complete system with high availability, high concurrency, multi-language, cross-contract, cross-virtual machine and so on. AIC Smart Contract supports a rich smart contract development language. Developers can easily develop AIC smart contracts without learning a new contract development language. The supported languages include: Python Go, etc., and in the near future. We will support more types of mainstream development languages, including: Java, C++, Rust, JavaScript, and more.



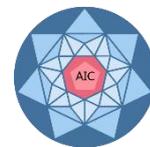
2.4 Infrastructure



AIC Workbench is the infrastructure layer of the AIC main network platform. It is an infrastructure for building large-scale intelligent services. It provides step-by-step construction and full lifecycle management services for the algorithm models required by intelligent business processes. You can continually sink your business into an algorithmic model to achieve the purpose of multiplexing, combinatorial innovation, and large-scale construction of intelligent services. At the same time, artificial intelligence requires very large amounts of data, and its development will face problems such as data source, quality, and privacy. The smart contract in the AIC Workbench infrastructure can protect the privacy of data owners and consumers through data isolation, providing a more comprehensive and accurate data source for artificial intelligence. AIC Workbench will be built on a public cloud. As business expansion and demand increase, other mainstream cloud services will be available in the future to ensure maximum availability and stability.



2.5 Platform interface



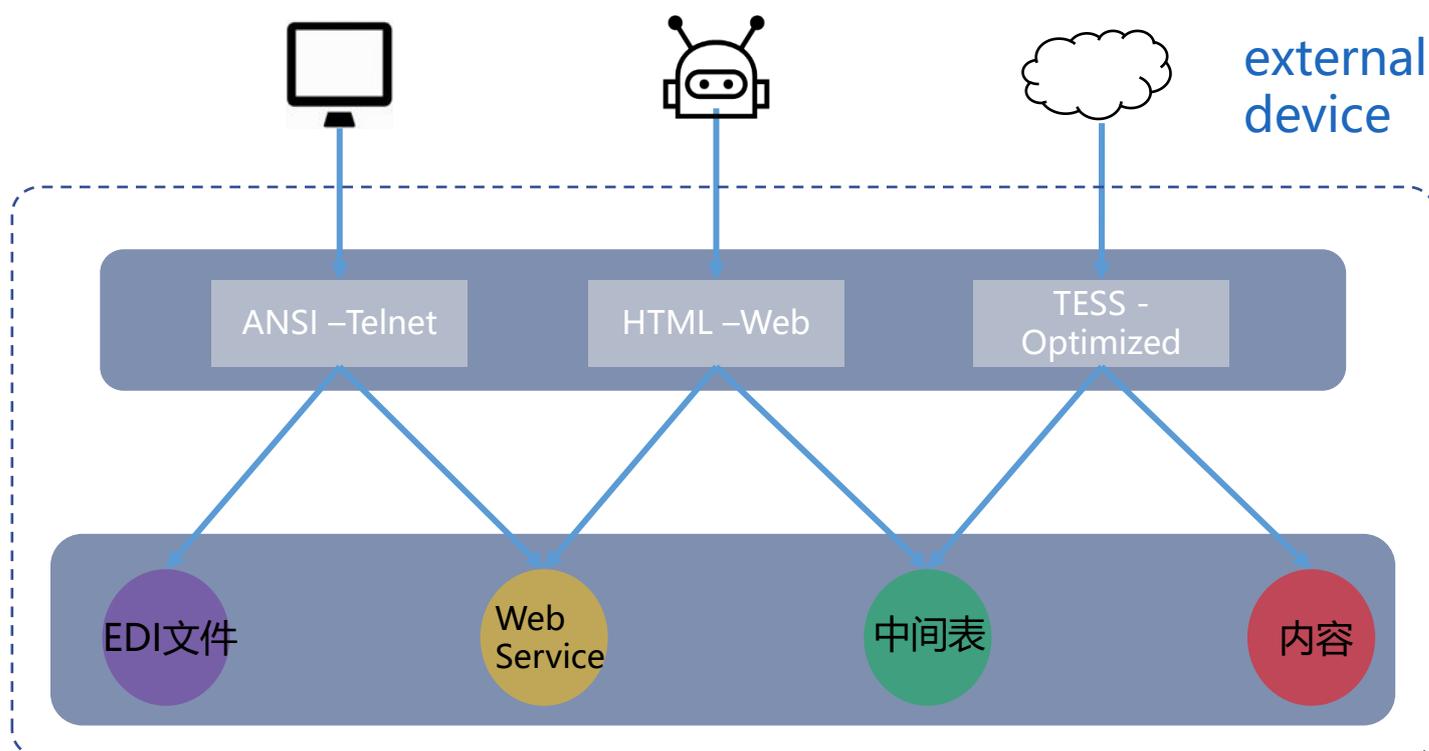
Basic blockchain operation interface: Adopt distributed cloud deployment to improve interface stability and throughput

Interface technologies include: EDI files (Txt, Excel, XML), Web services, database intermediate tables, interface content, etc.

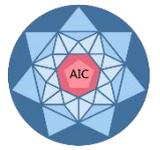
Optional protocol engines include: ANSI – Telnet, HTML – Web, TESS - Optimized/Secured, etc.

Design wizards include: Active Console, Active RFC, Active Dialog, Active GUI, Active IDoc, and more.

Interface content: Mobile Data Entry (module), Task and Resource, optional protocol engine, ANSI-Telnet, HTML-Web, TESS-Optimized/Secured, programming environment selection, VBScript, ABAP, support for synchronous and asynchronous transaction processing



3. Application scenario



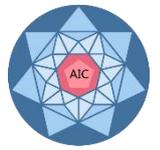
3.1 Intelligent monitoring



High security is a big advantage in blockchain technology. The distributed storage architecture of blockchain, the more nodes are distributed, the higher the security of data storage, the ingenious design of anti-tampering and decentralization in the consensus mechanism. It is impossible to modify or delete data privately.

In the security field such as intelligent monitoring, the blockchain can subtly solve some key problems facing the development of today's security products. Future blockchain technology + artificial intelligence technology will be applied to the video surveillance market, leaving the society scattered. The camera is connected to the intelligent monitoring system through the blockchain, which makes the prevention and crime prevention behavior more real-time. AIC Technology Lab has developed a neural network-based machine intelligence learning R&D project in the field of image recognition. The project is designed with the concept of "event security model", which can be used to detect threats before criminal behaviors occur. Take effective action ahead of time. And if some information is confirmed to be credible, some people's photos will be collected and saved as one of the blacklists of the network system. The face of this person, if detected by the video surveillance brush face, will send the area information of his active activity to the user in the form of information.

The traditional video surveillance market will be upgraded to solve the drawbacks of the original scattered surveillance camera that can not prevent criminal behavior in real time, and effectively prevent possible criminal behavior. The technology is a decentralized surveillance system designed to use their existing computer vision technology as a basis, supported by a network miner on a blockchain platform, to build an intelligent surveillance system for what is happening. Analyze and respond at any time.

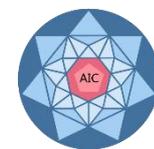


3.2 Recommendation engine



The search engine is based on a user's needs and a certain algorithm, using a specific strategy to retrieve a feedback technology from the Internet to provide information feedback to the user, providing information retrieval users with fast, highly relevant information services. The data generated by the interaction between the enterprise and the user has a certain meaning and will form a virtuous circle. Unfortunately, this wonderful experience is gradually being deprived due to the huge influence of the intermediary of the search engine platform and the intermediary of the advertising network. Consumers are losing their place in the search environment. Although they contribute valuable and actionable data every time they click, this contribution will never receive any return. Even if the results of their search are effective, they cannot be guaranteed. Financial transactions are fraudulent and should be blocked or investigated. It is necessary to make a decision audit of the search engine to ensure its accuracy and security. If the decision is recorded on the blockchain by data point to the data point, then the decision to audit is much simpler because the record has not been tampered with between the recorded information and the beginning of the audit process.

No matter how clearly we see that artificial intelligence has great advantages in many fields, if it is not trusted by the public, its practicality will be severely limited. In the blockchain record decision process, it may be transparency. And a step in insight into robot thinking to gain public trust.

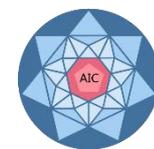


3.3 Wisdom education



Blockchain technology is a deep development direction of wisdom education. It is used in the education field to build a trust system to strengthen the protection of intellectual property rights. It uses decentralized features to construct a decentralized education system, and uses distributed storage to record trusted learning data. Educational intelligence contracts build a new model for network resources and platform operations. The application of blockchain and wisdom education. Special focus and landing in five aspects: digital resource copyright management, learning behavior data collection, teaching and training market regulation, education public welfare, talent file management.

Using distributed ledger technology to realize the customized connection between learners and resources according to the specific characteristics of learners, in the process of educational resource transaction, decentralized networked storage is used to realize the point-to-point relationship between learners and resources based on blockchain. Links to reduce unnecessary access and waste of resources. The blockchain can be used in a distributed learning environment to break the traditional education service to be concentrated in a single field of the school, so that learners can learn at any place and obtain effective learning certification to achieve effective integration of formal learning and informal learning. Promote the transformation of the education system. By utilizing the characteristics of the contract algorithm, resources can be automatically uploaded and authenticated according to mutual recognition standards. It is particularly worthy to note that the use of contract algorithms can build an efficient and intelligent learning space construction mechanism, realize the "self-organizing" construction of the learning space for learner characteristics, realize the intelligent construction of the intelligent education system environment and the generation of resources, and can monitor Learning the resources of the space and the ecological environment of learning.



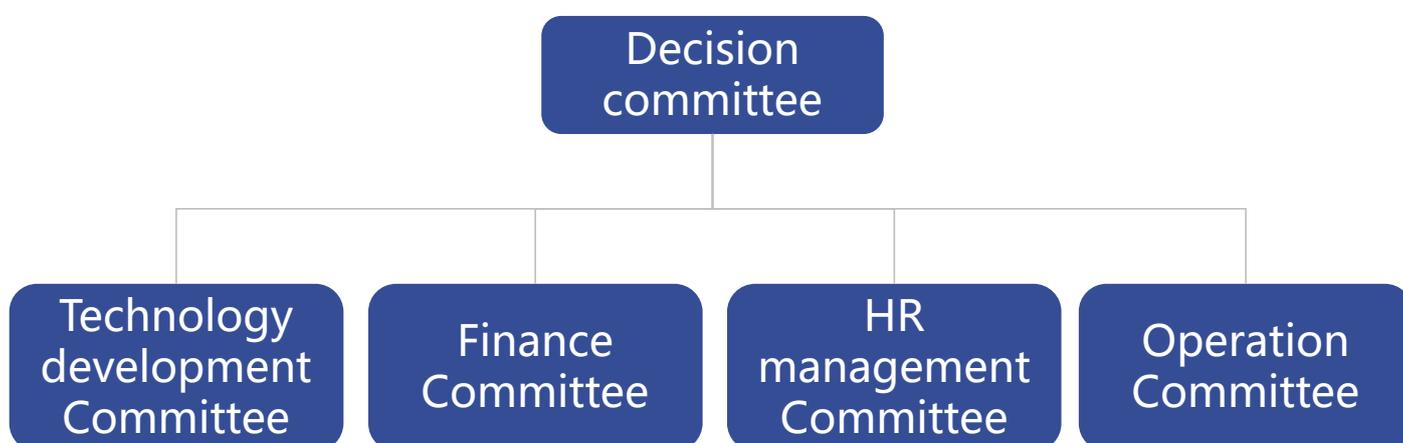
4. Team introduction

4.1 Foundation

The Artificial Intelligence Chain Foundation (hereinafter referred to as the “Foundation”) is an operational entity established in Singapore. The Foundation is committed to the construction and promotion of AIC projects, research and development to create the world's first intelligent AI service tool platform, and promote the healthy development of the artificial intelligence industry. The operations of the Foundation are subject to local laws, regulations and regulatory requirements. After the foundation is established, select appropriate community members, join the Foundation's functional committee, and participate in actual management and decision-making.

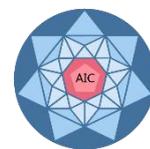
Foundation organization structure

The decision-making committee has four sub-departments: the technical development committee, the finance committee, the personnel management committee, and the operation committee, which are responsible for the formulation and implementation of the technology development strategy; the formulation and implementation of the financial system; the decision-making and implementation of the overall operation and marketing of the project. Wait for the transaction. The members of the decision-making committee change for four years, and the members of each sub-committee change for four years. The members are generally held by individuals with outstanding capabilities in relevant industries.



Foundation governance principles

The foundation's governance structure is maintained in an open and shared concept that promotes the sustainability of the Artificial Intelligence Chain community project while ensuring the security of funds and the effectiveness of management. Through regular reports and occasional press releases, the Foundation discloses and reports on the operation and development progress of the Foundation to all parties involved in the community.

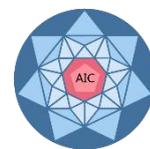


Foundation risk management

Artificial Intelligence Chain provides financial-grade security services through blockchain consensus, non-tamperable technologies, and secure means such as digital signatures and end-user encrypted wallets to secure user accounts and funds. Data storage, network and other resources are efficiently integrated, and data, applications and transactions are integrated into the blockchain cloud to build a secure transaction network environment. There are also a number of other means to ensure that the Artificial Intelligence Chain is secure and trustworthy.

Foundation transaction security

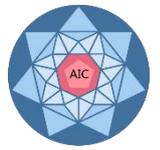
The Artificial Intelligence Chain Autonomous Commission must maintain high standards of integrity and ethical business conduct standards, comply with relevant laws and regulations and industry self-discipline principles, and provide transparent financial management. Artificial Intelligence Chain invites internationally renowned third-party auditors to Artificial Intelligence every year. The Chain Foundation conducts audits and assessments of capital use, cost, and profit distribution. Artificial Intelligence Chain will report unaudited publicly available third party audits.



4.2 Core team introduction

- William E. Davis** CEO - CEO & Founder
- Experienced software engineer with 14 years of R&D experience
 - Worked at major technology companies such as Google and IBM
 - AI technology, blockchain enthusiasts
- David Redlick** CMO – Chief Marketing Officer
Commercial Development
- Digital Marketing Specialist
 - Blockchain and early cryptocurrency enthusiasts
- Lynn Seely** COO - Chief Operating Officer
- Online brokerage operations specialist
 - Forex trading
 - Content Marketing and Digital Marketing Specialist
- Thomas Dyrberg** CIO - Chief Information Officer
- Smart Contract and Blockchain Engineer
 - Multiple AI smart project development experience
 - Working for a number of well-known startups
- Marco Chen** Greater China Regional Operations Partner
- American Chinese
 - Graduated from Columbia University
 - Worked in well-known companies such as IMB

5.AIC Pass card



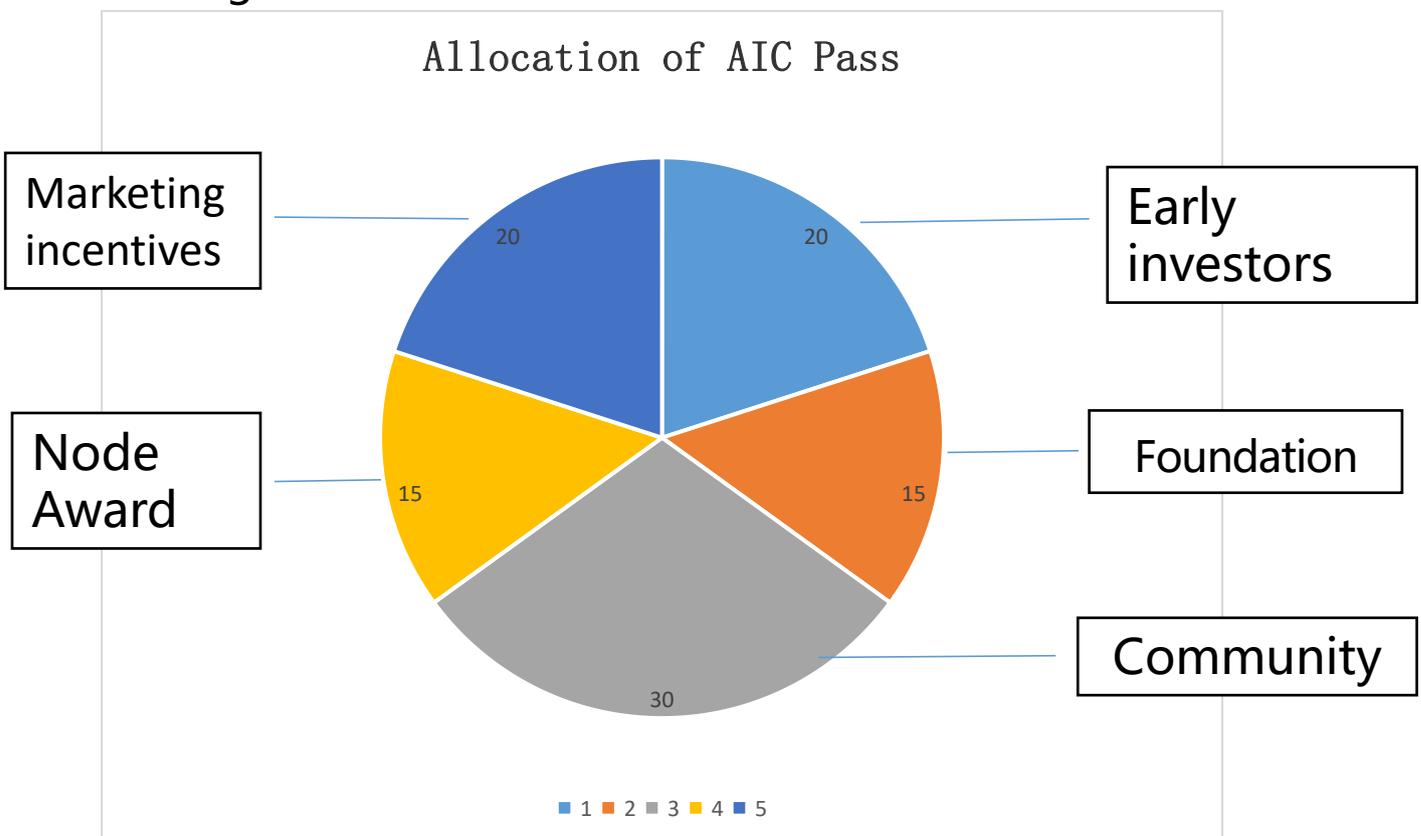
Artificial Intelligence Chain abbreviation (AIC)

AIC is the only passport to pay or burn for AI project chain development, application certification and use of on-line services in AI main network technology ecosystem. In the future, AIC will provide a de-centralized economic platform, which directly links AI services with users to form an aggregation effect, and service the intelligent economy through intelligent technology.

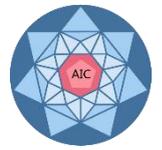
AIC has a total circulation of 5 billion yuan, based on ETF Technology. Never issue, The total is divided into five parts:

- Early investors 1 billion : 20%
- Foundation 750 million: 15%
- Community 1 billion 500 million: 30%
- Node Award 750 million: 15%
- Marketing Award Billion: 20%

Allocation of AIC Pass



6. Risk warning



- **Risk due to loss of private key or password**

The purchase of AIC's exchange account number and password or the private key address stored in the wallet is disclosed to third parties or the loss of AIC pass will be lost due to loss of forgotten. In order to minimize this risk, the purchaser must protect their electronic equipment against The authenticated access request passes through and accesses the device content and separates the login credentials of the exchange or wallet into one or several places for secure storage.

- **Market risk**

In the digital currency trading market, if the overall value of the digital asset market is overvalued, the investment risk will likely increase, and participants may have too high expectations for the growth of the project, and the expectations for excessive demand may not be realized.

- **Judicial supervision related risks**

Blockchain technology has become the main target of regulation in all major countries in the world. If the regulators exert influence, AIC applications or AIC certificates may be affected, such as restrictions on the use of laws and the sale of digital certificates.

- **Risks associated with the Ethereum core agreement**

Prior to the AIC main online line, AIC Pass was developed based on the Ethereum ERC20 protocol, so any failure of the Ethereum core protocol, unpredictable functional problems or attacks could cause AIC Pass to stop working or function in an unpredictable manner. Missing.

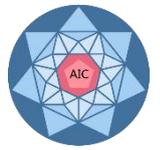
- **Risk of hacking or theft**

Hackers or other organizations or countries have the possibility to attempt to interrupt AIC applications or AIC pass-through functions in any way, including service attacks, Sybil attacks, guerrilla attacks, malware attacks, or consistency attacks. There is usually no insurance stored on the AIC main network or the Ethereum network. Loss under any circumstances will not be covered by any public organization or individual for your loss.

- **Unpredictable other risks**

Blockchain Pass is an emerging technology. In addition to the risks mentioned in this white paper, there are some risks in the blockchain industry itself and the AIC team that have not been anticipated.

7. Legal Affairs



The Artificial Intelligence Chain Foundation was established in Singapore and needs to be confirmed by local lawyers if there is a need to seek legal advice.

Disclaimer

This document is for informational purposes only and does not constitute an opinion on the purchase or sale of digital assets. Any similar proposal or suggestion will be made under a trusted provision and subject to applicable laws. The above information or analysis is not Form investment decisions, or specific recommendations. This document does not constitute any investment advice, investment intention or investment in investment in digital assets. This document does not constitute or be construed as providing any purchase or sale, or any invitation to buy or sell any form of digital asset, nor is it a contract or commitment of any kind, nor any direct or indirect damages resulting from participation in an AIC project. AIC Pass is not a type of ownership or control. Having an AIC Pass does not represent ownership of the AI Chain Decentralized Platform. AIC Pass does not grant any individual participation in control or any decision regarding the decentralized platform decision of the AI chain. .

The Artificial Intelligence Chain Foundation reserves the right of final interpretation of this white paper.