



**Artificial Intelligence Solution
Digital Chain
White Paper**

V 1.0

June 2019

Abstract

A new round of scientific and technological revolution and industrial transformation is germinating. The formation of big data, the innovation of deep learning algorithm, the improvement of computing power and the evolution of network facilities drive the development of artificial intelligence into a new stage. Intelligence has gradually become an important direction of technology and industry development.

However, there are still some problems in the application of AI, which makes it not perfectly integrate into real life. For example, once an intelligent system is attacked by hackers or hijacked by the network, serious security problems will arise. User information also has the risk of leaking and it can not be fully trusted. Also, the large amount of data on which the development of AI technology depends also has island effect. On the one hand, these data are monopolized, on the other hand, data from different sources can not be effectively linked together, which hinders the development of AI.

With the increasing popularity of Bitcoin, Block Chain Technology, as the underlying framework of Bitcoin, demonstrates to the world the possibility of value transfer without intermediary by utilizing its characteristics of decentralization, unforgeability, openness and transparency, distributed accounting, tamper-resistant and intelligent contract.

Based on the pain points of artificial intelligence industry and the characteristics of block chain technology, ASDC comes into being at the historic moment. ASDC deeply integrates block chain technology with AI. In addition to considering the importance of data value, ASDC also needs to include AI application developers, platform resource providers (with a large number of graphics card servers) and consumers to run AI applications. Block chain technology is used to efficiently link participants in the field of AI. Then, the development of artificial intelligence can be accelerated by stimulating the participants through endogenous incentive mechanism. ASDC also breaks through the limitations of program size and programming language of virtual machines on block chains, thus supporting many complex applications of AI.

ASDC solves programming language constraints by using external virtual machines and integrating open source Docker containers. It is possible to trigger and run AI applications on ASDC

nodes by integrating multiple programming languages in Docker IMG image files, including tensorflow and other complex AI application environments.

Restrictions on program size and programming language of virtual machines on block chains. ASDC only packages and uploads the description information of AI application and resource data into the block chain, and stores the executable file data and resource data of AI application outside the block chain, thus allowing larger data size and more complex applications to run on the chain.

ASDC aims to create a block chain and AI collaborative development application platform that can enable AI developers, AI demanders, AI resource providers to participate in the interaction at the same time, to solve the problem that AI application development data is controlled and monopolized, and to improve the security of AI applications.

Contents

I . Project Background	1
1.1 Introduction of Block Chain Background	1
1.2 Development and Current Situation of Artificial Intelligence	1
1.3 Integration of Artificial Intelligence and Block Chain	2
1.4 ASDC Vision.....	2
II. ASC Technical Scheme	3
2.1 The Drawbacks of Current AI Technology	3
2.2 Solutions Provided by ASDC.....	3
2.3 Design Concept of ASDC	4
III. Ecological Distribution	5
3.1 Ecological Distribution of Participants.....	5
3.2 Different Users	6
IV. Application Scenarios.....	7
4.1 AI Resource Market	7
4.2 Virtual Personal Assistant	8
V . Introduction of Tokens	9
5.1 Introduction to ASDC Attributes	9
5.2 ASDC Token Allocation	9
VI. ASC Development Planning	9
6.1 ASDC Development Route	9
6.2 ASDC Future Iteration Plan	10
VII. Disclaimer and Risk Tips	11
7.1 Disclaimer	11
7.2 Risk Tips.....	12

I . Project Background

1.1 Introduction of Block Chain Background

Block chain, as the bottom frame technology of Bitcoin, uses the characteristics of decentralization, unforgeability, openness and transparency, distributed accounting, non-tampering and intelligent contract to show the world a possibility of value transfer without intermediary.

Block chain is essentially a decentralized distributed accounting database. Its value lies in the construction of self-organizing network and the use of cryptographic correlation algorithm to generate a series of data blocks, which can not be tampered with in an orderly manner. Each data block contains the information of valid confirmation of multiple transactions, thus establishing a distributed consensus machine to achieve decentralized trust system.

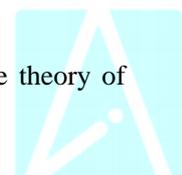
With the development of technology, block chains are more and more used in our daily life. Whether in food traceability, copyright protection, or even legal notarization, the technological form of the block chain is illusioning more and more possibilities of application. When the block chain returns to the technology itself, what we see is a new evolution, and a new era dominated by technology will be opened.

1.2 Development and Current Situation of Artificial Intelligence

More than 60 years ago, at Dartmouth Conference, the topic of "Artificial Intelligence" was put forward, aiming at enabling mature computers to solve some perceptual, cognitive and even decision-making problems instead of human beings. AI is artificial intelligence.

In 1997, IBM's "Deep Blue II" supercomputer defeated the defending chess champion Gary Kasparov. This phenomenon marked a perfect performance of AI technology. By Alpha Go in recent years, the development of artificial intelligence seems to have reached the stage where artificial intelligence has made great achievements in the fields of pattern recognition, knowledge engineering and robotics.

Artificial intelligence has developed rapidly in recent years. Especially after the theory of



in-depth learning was put forward, AI has reached a height that human beings can not even reach in some fields. Then back to the application in real life, AI is very limited, far from the real AI world.

1.3 Integration of Artificial Intelligence and Block Chain

What does block chain plus AI equal?

To answer this question, we need to understand the trust mechanism of block chains. The ultimate problem of AI is the trust between intelligent devices and between intelligent devices and people. Obviously, the traditional centralized system can not build this trust system. Only through the block chain can we realize people's common ownership and common use of intelligent devices. The block chain allows users to set the status of devices together and make decisions according to the intelligent contract. For example, users of devices are registered on the block chain, and different levels of users are accessed through intelligent contracts. It provides personalized functions for different levels of users. It can not only prevent the abuse of intelligent devices, ensure the accuracy of information between intelligent devices, but also prevent the leakage of user information and ensure the security of data.

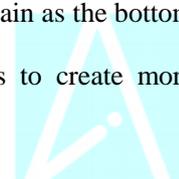
In addition, the registration system will continue throughout the life cycle of the equipment, so that different users, software and hardware can be used to assist regulators in identifying the exact time when the equipment fails.

Therefore, as a bottom frame technology, block chains will not only bring about changes in finance, government, medical and other industries in the future, but also bring significant changes to the frontier technology disciplines such as artificial intelligence.

1.4 ASDC Vision

From the current development trend, the future big data is the most important factor of production, artificial intelligence is the most efficient productivity, and block chain will establish a more stable production relationship.

ASDC aims to build an AI resource collaboration eco-platform with block chain as the bottom , to encourage data owners to share data, to encourage application developers to create more



valuable applications to meet the needs of all participants in the market, and to make the whole ecosystem more stable and rich.

ASDC technically upgrades the existing block chain system and breaks through the limitations of AI application programming language, operating environment and complex application by using the scheme of external Docker container, which enables AI application to utilize block chain technology to circulate data, services and other resources.

ASDC aims to integrate AI and block chain perfectly, divide AI application development process and use into different roles, and build an AI platform that can be participated by all people.

II. ASDC Technical Scheme

2.1 The Drawbacks of Current AI Technology

1. In essence, AI is a self-operating system based on in-depth learning, which inevitably has the risk of security vulnerabilities. Once these vulnerabilities are exploited by hackers or hijacked by networks, they will bring serious security problems.
2. Sensors, training data and open source software that AI relies on may also have security risks. For example, sensors can be jammed and the system itself can be deceived or intruded. All of these may lead to data leakage and untrustworthiness of AI.
3. The development of AI technology and the stability of its own system depend on a large number of reliable data sources, while organizations such as Google, Facebook and telecom companies control access rights to a large number of data, which leads to the data islanding effect prevalent at present. Many data can not be accessed directly, even if they can be accessed, they can not be effectively integrated from different sources. These data are very important for AI development, training and so on, so it has become one of the factors hindering the rapid development of AI.

2.2 Solutions Provided by ASDC

1. ASDC provides a set of information transmission system with high security by using block chain



technology and intelligent robot, and provides deep AI learning by using ASDC scheme.

Because the block chain is a distributed trust network, the information on the block chain must be authenticated by most nodes in the network before it can be accepted and processed into the ledger. Therefore, the more nodes running on the block chain network, the more difficult it is to hijack or crack such a trust system, so as to ensure that ASDC is safe and reliable enough.

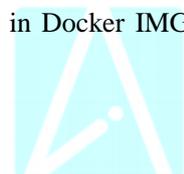
2. The immutable record will bring about traceability of training test data and model, and improve the reliability of data and model. Records kept in the block chain ledger can be reviewed by authorized personnel who have access to the system at any time. At the same time, because the database has been encrypted, users who have not been granted access rights will not be able to view anything, thus eliminating the risk of data leakage.

3. Block chain is a publicly distributed database. The data on the chain is visible all over the network and can be used for all nodes on the network. Block chain can effectively solve the problem of data islands in the field of artificial intelligence. Based on the block chain endogenous incentive mechanism, it can realize the conversion of data and value, let the value of data feed back to the creator of data, and end the control of user data by a few large companies under the centralized system.

2.3 Design Concept of ASDC

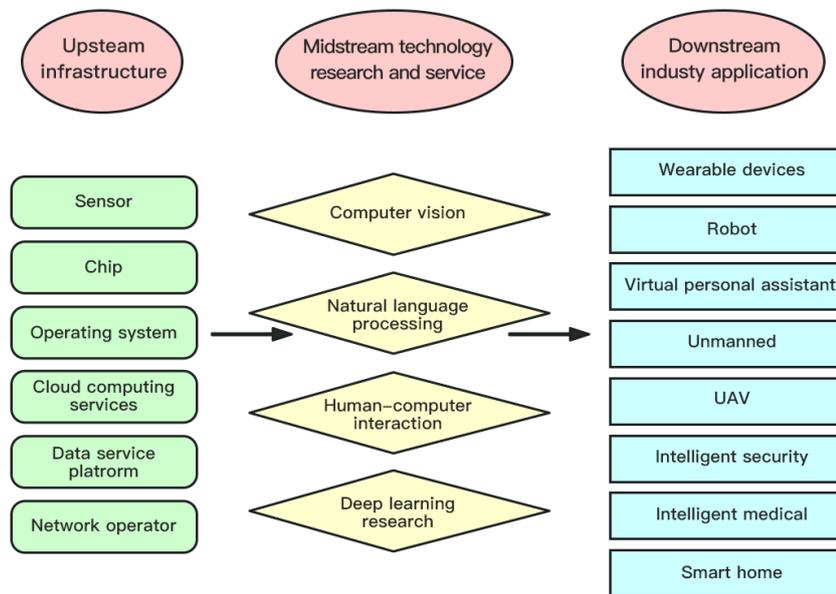
In order to solve the above problems of AI, the concept of ASDC emerged as the times require, and these problems in the field of AI were solved by introducing block chain technology. In addition, in order to better integrate block chains with AI, we have made the following improvements to the current block chains technology:

1. ASDC solves programming language constraints by using external virtual machines and integrating open source Docker containers. The ASDC integrated Docker container scheme can be gradually improved with the progress of the open source project Docker. Docker IMG image files, which rely on conventions and publication of uniform standards, can make the application running environment of ASDC uniform and can be upgraded independently. It is possible to trigger and run AI applications on ASDC nodes by integrating multiple programming languages in Docker IMG image files, including tensorflow and other complex AI application environments.



2. Restrictions on program size and programming language of virtual machines on block chains. ASDC stores application executable file data and resource data outside the block chain, reduces the complexity of the block chain, packages application and resource data description information into labels and stores them on the block chain. When we need data, we extract the unique label from the block chain, and then extract the executable file data, resource data and so on. This solves the above problems and allows larger data size and more complex applications.

Finally, ASDC divides the development process and use of AI application into different roles, releases them to block chains, provides information dissemination channels, promotes the exchange of AI resources, and forms an AI collaborative development application platform.

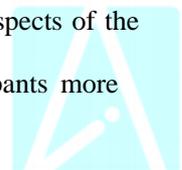


AI Application Structure

III. Ecological Distribution

3.1 Ecological Distribution of Participants

ASDC further refines the resources and needs of participants by sorting out all aspects of the whole ecosystem of AI, so as to depict the cooperative relationship among participants more



profoundly, promote the win-win cooperation of the whole ecosystem, and promote the rapid development of AI.

For AI developers, ASDC will build a trading market for AI production factors. According to their own needs, development companies can find the required data resources more conveniently, which greatly reduces the time cost of collecting data. In addition, with the increasing number of data resource providers, the pricing power of data resources will gradually be attributed to the market, which is no longer controlled by monopoly enterprises.

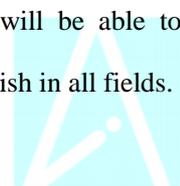
For AI demanders, ASDC will build a store that provides a wide range of AI applications. Individuals or companies do not need to know the bottom development technology of AI. Even without AI running resources, they can find the required AI application modules on ASDC, and combine their own data resources to form AI applications suitable for personal and corporate needs.

For all kinds of AI resource providers, it is more convenient to obtain the circulation value of resources on the premise of guaranteeing the ownership of resources.

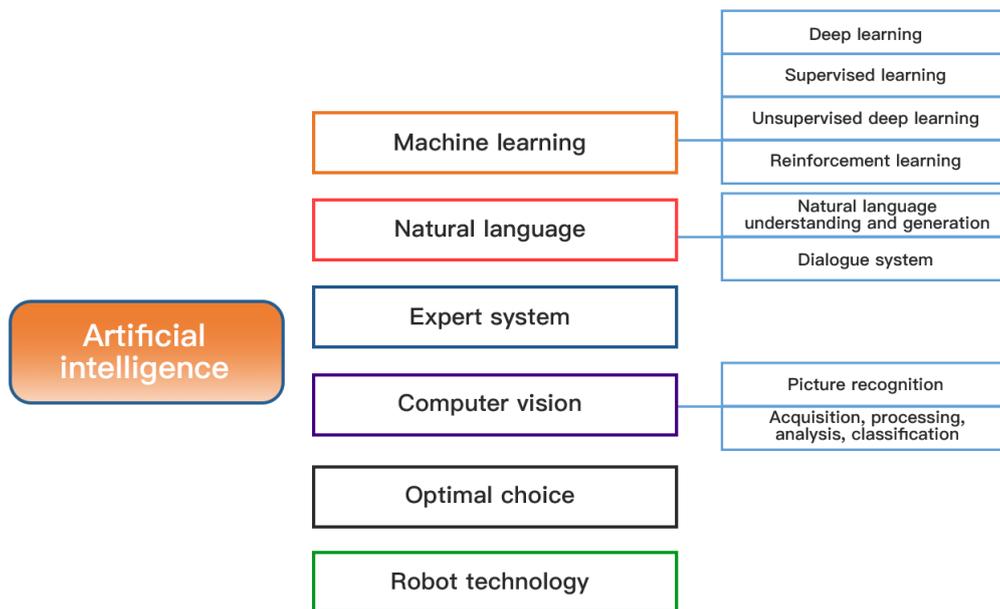
3.2 Different Users

At present, the development mode of AI has changed from early technology-driven to data-driven. A few monopolists of data resources have become the dominant ones. Many AI developers are unable to optimize the training model due to lack of data accumulation. As a necessary factor of production, big data is too centralized to match the scientific and technological productivity of AI development, which leads to the inefficiency of the whole resource collaboration market and hinders the development speed of AI to a great extent.

ASDC will rely on the bottom structure of block chain, connect the roles of data resource and application developer, effectively organize the matching of productivity and production factors, and attract more resource owners to participate through endogenous incentive mechanism, gradually enrich data reserves and application scenarios, so as to realize a virtuous cycle of the system and solve the data monopoly problem in AI. For developers, we provide a better and cheaper development environment. In this environment, more AI developers will be able to develop and train application modules more effectively, thus promoting AI to flourish in all fields.



Through an open and transparent de-centralized resource trading platform, all kinds of resources needed for AI development can be traded on the chain, and resource demanders can obtain access to resources by paying ASDC to resource providers. With the introduction of more and more resources in the market, fair pricing will be gradually realized in the market, which will promote the scale development of AI application development. Artificial intelligence can benefit everyone's life faster, better and safer.

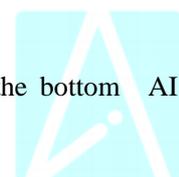


AI DAPP Layer Diagram

IV. Application Scenarios

4.1 AI Resource Market

The first stage of this project is to attract AI developers to jointly build the bottom AI



resource market. Once new AI resource data are injected, the market will generate corresponding circulating tokens. Therefore, in the AI resource market, the more AI resource data, the greater the value of ASDC projects.

With the gradual maturity of AI resource market, when there is demand for AI resource data in the market, the demander can mortgage the digital currency assets to obtain access to AI resources. After the expiration of the usage rights, the demander needs to pay a certain amount of ASDC tokens as the data usage fee and freeze the data usage rights. After that, the system will automatically return the digital currency assets mortgaged by the demander.

Therefore, the value of ASDC is based on AI resource data and miners' calculation. By providing AI resource market, ASDC enables developers and demanders to make full use of the open AI resources, and provides developers with AI resources to further promote the development of AI.

4.2 Virtual Personal Assistant

Virtual Personal Assistant is one of the AI function templates developed by ASDC team independently. High energy efficiency and personalized VPA are indispensable to the future intelligent world. ASDC will enrich the future life more seamlessly. Through the combination of voice interaction, intelligent hardware and multi-scene interaction, a virtual personal assistant is formed, which can be truly ubiquitous in everybody's life. The application scope of this technology is very wide: for example, important meetings that need to be held at the same time in different regions, replacement of long-term duty, simulating the daily life of stars to interact with fans, helping the elderly of no family out of loneliness and so on.



V. Introduction of Tokens

5.1 Introduction to ASDC Attributes

- English full name: AI Solution Digital Coin
- Abbreviation code: ASDC
- Total circulation: 100 million

5.2 ASDC Token Allocation

purpose	Allocation	Price	Release Rules	Remarks
	Quantity (10,000)	(USDT /coin)		
Foundation Distribution	1000	0.0145	Lock Position 100%, release 40% 6 months after ASDC enters the Exchange, 20% quarterly.	
Private Equity Distribution	3000	0.029	Release in accordance with ISO rules of CC Exchange	
Team Reservation	1000	/	Release 2 years after ASDC enters the Exchange, 25% annually.	For Team Motivation
Eco-mining	4000	/	Release after it is launched	For ecological construction
Market Business	1000	/	Not lock position	For market promotion and online exchange

VI. ASDC Development Planning

6.1 ASDC Development Route

March 2019 The project starts.



- May 2019 Complete Docker container, virtual machine programming and other conceptual validation.
- June 2019 White Paper Version 1.0, identify the strategic partners.
- December 2019 Complete ASDC robot community network construction.
- June 2020 Start the full-node campaign of ASDC block chain, 21 super-nodes and 33 alternative nodes.
- December 2020 Create VR virtual reality applications such as virtual reality games, virtual reality movies, virtual reality peripheral hardware
- June 2021 Major network is on line, and complete the ASDC platform construction.
- December 2021 Complete the construction of basic AI application module, dock the members resources of the robot community.

6.2 ASDC Future Iteration Plan

Iteration of the bottom frame

When the ASDC code is vulnerable, it needs to be analyzed, tested and audited by the Code Committee and submitted to the Decision Committee for report. When minor vulnerabilities occur, they are patched directly by the Code Committee. When the following major vulnerabilities (not limited to the following), the system needs to be upgraded.

- Influencing user funds
- Major security issues
- Influencing system security

Iteration in Business Applications

ASDC will be a completely open source project. ASDC hopes to link block chains, artificial intelligence and reality through technological and ideological innovations. ASDC will choose the right third party to cooperate in the iteration of industry and application.



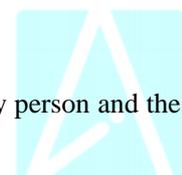
VII. Disclaimer and Risk Tips

7.1 Disclaimer

This document is only used to convey information, and does not constitute the relevant opinions on the sale of this project. The above information or analysis does not constitute an investment decision. This document does not constitute any investment proposals, investment intentions or abetting investments. This document does not constitute or understand any act of buying or selling securities, nor is it any form of contract or commitment.

And hereby refuse to acknowledge or undertake the following responsibilities:

- (1) Anyone who purchases ASDC violates the anti-money laundering, anti-terrorism financing or other regulatory requirements of any country;
- (2) Anyone who purchases an ASDC violates any statement, warranty, obligation, undertaking or other requirement stipulated in this white paper, as well as the consequent inability to pay or withdraw the ASDC;
- (3) ASDC's sales plan was abandoned for any reason;
- (4) The failure or abandonment of ASDC development and the consequent failure to deliver ASDC;
- (5) Postponement or delay of ASDC development and consequent inability to reach a prior disclosure schedule;
- (6) Errors, flaws, defects or other problems in ASDC source code;
- (7) Failure, collapse, paralysis, rollback or hard bifurcation of ASDC or Ethernet block chains;
- (8) ASDC fails to achieve any specific function or is not suitable for any particular purpose;
- (9) The use of funds raised by public sale;
- (10) Failure to disclose timely and complete information on ASDC development;
- (11) The wallet private key of a digitally encrypted currency or token leaked, lost or destroyed by any participant;
- (12) Breach of contract, violation, infringement, collapse, paralysis, service termination or suspension, fraud, misoperation, improper behavior, fault, negligence, bankruptcy, liquidation, dissolution or closure of ASDC's third-party selling platform;
- (13) The differences, conflicts or contradictions between the agreed content of any person and the



third party selling platform and the content of this white paper;

(14) Anyone's trading or speculation with ASDC;

(15) The listing or delisting of ASDC on any exchange;

(16) ASDC is classified or regarded as a kind of currency, securities commercial paper, negotiable instrument, investment goods or other things by any government, quasi-government agency, competent authority or public institution, so that it is prohibited, regulated or restricted by law;

(17) Any risk factors disclosed in this White Paper, as well as any damage, loss, claim, liability, penalty, cost or other negative impacts related to such risk factors, resulting in or accompanied by such risk factors.

7.2 Risk Tips

1. Before ASDC enters the main network, ASDC tokens were ERC20 tokens based on ethernettechnology, so any failure of ethernet core protocol, unexpected functional problems or attacks may cause ASDC tokens to stop working or function loss in an unexpected way.
2. As of the publication date of this white paper, ASDC is still in the development stage. Its philosophy, consensus mechanism, algorithm, code and other technical details and parameters may be updated and changed. Although this white paper contains the latest key information of ASDC, it is not absolutely complete. ASDC is not obliged to inform the participants of every detail in the development process at any time. Therefore, it does not necessarily make the buyer have timely and full access to the information generated from time to time in the development of ASDC. The inadequacy of information disclosure is inevitable and reasonable.
3. Encrypted tokens are being or may be regulated by competent authorities in different countries. ASDC receives inquiries, notifications, warnings, orders or rulings from one or more authorities from time to time, and may even be ordered to suspend or terminate any action on ASDC development and others. ASDC development, marketing, publicity or other aspects may therefore be seriously affected, hindered or terminated. In different countries, ASDC may be defined as virtual goods, digital assets or even securities or currencies at any time. Therefore, in some countries, ASDC may be prohibited from trading or holding according to local regulatory requirements.
4. Cryptography is evolving, and it can not guarantee absolute security at any time. Advances in



cryptography (such as password cracking) or technology (such as the invention of quantum computers) may pose a risk to cryptographic-based systems (including ASDCs). This may lead to theft, disappearance, destruction or devaluation of ASDCs held by anyone. Within a reasonable range, the ASDC Foundation will prepare itself to take preventive or remedial measures, upgrade the underlying protocol of ASDC to respond to any advances in cryptography, and incorporate new reasonable security measures in appropriate circumstances. The future of cryptography and security innovation is unpredictable. ASDC will try its best to cater to the changing fields of cryptography and security.

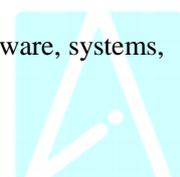
5. ASDC is still in the development stage. Because of the technical complexity of ASDC system, ASDC Foundation may face unpredictable or insurmountable difficulties from time to time. Therefore, ASDC development may fail or abandon at any time for any reason (for example, due to lack of funds).

Failure or abandonment of development will result in the failure of ASDC to deliver to any purchaser of this sales plan.

6. No one can guarantee that ASDC source code is completely flawless. Code may have some flaws, errors, defects and vulnerabilities, which may prevent users from using specific functions, exposing users' information or causing other problems. If there are such defects, the usability, stability and security of ASDC will be impaired, and the value of ASDC will be negatively affected. Open source code is based on transparency to promote community-based code identification and problem solving. ASDC works closely with the ASDC community to continuously improve, optimize and improve ASDC source code.

7. The value of ASDC depends largely on the popularity of ASDC platform. ASDC does not expect to be popular, prevalent or widely used within a short period of time after its release. In the worst case, ASDC may even be marginalized for a long time, attracting only a small number of users. By contrast, a large ASDC demand may be speculative. Lack of users may lead to an increase in price volatility in ASDC market, thus affecting the long-term development of ASDC. When such price fluctuations occur, ASDC has no responsibility to stabilize or influence the market price of ASDC.

8. The bottom protocol of ASDC is based on open source computer software. No one advocates copyright or other intellectual property rights in the source code. Therefore, anyone can legitimately copy, reproduce, design, modify, upgrade, improve, recode, reprogram or utilize ASDC source code or bottom protocols in an attempt to develop competitive protocols, software, systems,



virtual platforms or virtual machines to compete with or even catch up with or replace ASDC.

ASDC has no control over this. In addition, many competitive block-chain-based platforms already exist and will compete with ASDC. Under no circumstances can ASDC eliminate, prevent, limit or reduce such competitive efforts aimed at competing with or replacing ASDC.

