

LITERATURE AND HISTORY PASS GLOBAL PASSNT

# HVCC

# THE FIRST PASSPORT APPLICATION PROJECT

FOR CULTURAL INDUSTRY IN THE WORLD

PROJECT WHITE PAPER

WWW.HVCCION.COM



#### **Preface**

Singapore, otherwise known as the lion city, is a multicultural country in southeast Asia. Unique geographical environment, let it become a world famous tourist city; Known as one of the "four Asian tigers", Singapore is also one of the most international countries in the world and one of the most effective countries in the cultural industry.

The rise of Singapore's cultural output is attributed to a series of cultural industry policies and measures implemented by the government, which have created a good social environment for the development of Singapore's cultural industry. In addition, the Singapore government has adopted various cultural legislation such as the Singapore multicultural law, film law, broadcasting law, copyright law and museum law to ensure the status of "Singapore content" in economic activities.

As a famous tourist city, Singapore has a large number of tourists, and the cultural and creative industry will become a driving force between tourists and Singapore. The Singapore government believes that the cultural and creative industry will play an important role in the future social development. Therefore, in order to make Singapore more competitive in the future economic development, the government of Singapore has made great efforts to develop cultural and creative industries and cultivate talents with innovative thinking in the past 10



years.

In 2000, the Singapore government released the Renaissance city report, in which it proposed to build Singapore into a world-class cultural city. The government's primary objective is to implement the plans outlined in the report to develop Singapore's cultural and creative industries. "" the cultural sector is a huge source of Singapore's economic development," "said the head of the government's ministry of culture. "Our plan is to protect important national cultural institutions, defend the official language, promote all industries that reflect our unique identity as singaporeans, and provide employment and development opportunities for cultural and creative industries.

Under the influence of eastern and western cultures, and to consolidate the pillar position of trade and investment in Singapore's economic strategy, the Singapore government proposed to increase efforts to expand cultural exchanges with North America and emerging international markets, advocated the establishment of a "multicultural international network" and gradually became the hub of Asia's creative industries. With the continuous update of the Internet industry, Singapore embraces blockchain with its fearless spirit and becomes the key place for the development of blockchain in the global field. No matter the application of blockchain or the issuance and transaction of



digital currency, Singapore is more cutting-edge and open than other countries.

The government's strong support for the growth of blockchain has provided a strong guarantee for us to expand our influence and lead the rapid development of blockchain economy along the sound track. HVCC literature and history, just the earliest form of a development. This is a "long term" process, and what is being done is a typical "silicon valley entrepreneurship" model, which is first created, developed and perfected on a small scale, and finally what HVCC wants to do is to build an ecosystem based on Shared logic.

HVCC directly cooperates with securities regulators in Singapore and is committed to the launch and in-depth preparation of the international cultural industry business model innovation ecological platform driven by the block chain technology, as well as the strategic action of global layout. At the same time, Singapore urban development group (CDL) plans to set up a us \$1 billion blockchain industry investment fund for strategic layout or expansion based on cultural exchange and output. We will make this southeast Asian country an ideal hub for technological innovation, driven by relentless cultural output, political will and an open mind.

In recent years, with the rapid rise of blockchain technology in the



world, more and more traditional industries have begun to seek to use new technologies to solve problems. However, the combination of blockchain technology in the cultural industry is rare. So far, there is still no blockchain project in the world that can truly realize the combination of blockchain and cultural industry. Fortunately, in order to adapt to the development of globalization, Singapore is actively embracing the opportunity of the development of blockchain, starting to develop blockchain technology and layout the blockchain industry, and is committed to becoming a global center of blockchain and a laboratory for global scientific and technological development and invention.

The cultural industry has entered the 2.0 era with both challenges and opportunities. The current cultural industry still has its own matrix, data island and other pain points to be solved, the block chain technology will bring more imagination space to the development of the cultural industry.



## **Contents**

Overview	10
1.Blockchain technology development	12
1.1Decentralized application	12
1.2Into the field of cultural industry	13
1.3Characteristics of cultural consumers	14
1.4Significance of Cultural consumption	15
2. Industry pain spot	17
2.1The current situation of cultural industry development	17
2.1.1The industrial system is taking shape	17
2.1.2Rational distribution, uneven development	17
2.1.3Main body expands, but intensive change is not high	17
2.1.4Industry promotion, the international disadvantage	18
2.2Problems in the development of cultural industry	18
2.2.1The management system is not sound	18
2.2.2The laws and regulations are not perfect	18
2.2.3Backward communication mode	18
2.2.4Market expansion ability is not strong	19
3.Application opportunities of blockchain	19
3.1 What is HVCC	20
3.2 Cultural industry license HVCC advantage	21



3.2.1Breakthroughs in traditional industries	21
3.2.2Innovative cultural development mode	22
3.3What HVCC means for the cultural industry	23
3.3.1 让 Make queues shorter	24
3.3.2Make the data more valuable	24
3.3.3Disrupt existing online booking models	25
3.3.4Get better cultural consumption guidance	25
3.3.5Make reservations very reliable	26
3.3.6Promote loyalty interoperability	26
4.HVCC basic situation	27
4.1.Fundamental	27
4.2Design philosophy	28
4.2.1The Design idea of Economic level	29
4.2.2Design ideas at the Technical level	29
4.3The core technology	30
4.4The development trend	30
5.What are we gonna do	31
5.1Build a blockchain e-resume	32
5.2Three blockchain forms of hybrid cross-chain services	32
5.2.1A publicly linked personal application service	32
5.2.2Multi-level traceability system and application	32



5.3HVCC for which users	.33
5.3.1Developer	.33
5.3.2Cultural services	33
5.3.3Ordinary users (cultural consumers)	.33
6.Technical features and advantages	.34
6.1Resolver technology	.34
6.2Technical advantages	.35
6.2.1A high performance	35
6.2.2High speed access	.36
6.2.3Security	36
6.2.4No limitations	.37
6.2.5Low rates	.37
6.2.6Efficient operation	37
6.2.7Privacy	37
6.2.8Open source and full transparency	.38
6.2.9S.calability	.38
7.Token, a service based on public chain	.39
7.1Development and distribution methods	.39
7.2Public chain-based services	.39
7.3Trading	40
7.4Account system	40



8. HVCC governance architecture	41
8.1Establishment of wisdom public chain foundation	41
8.2Foundation governance structure	42
8.3 HVCC team	43
9.Main application types	48
9.1Digital identity management	48
9.2Credit consumption management	48
9.3Cultural community comments	49
9.4Cultural output	49
9.4.1Blockchain + authentication output certificate	49
9.4.2Blockchain + education	50
9.4.3Blockchain + consumer insurance	50
9.4.4Blockchain + hotel accommodations	50
9.5Cultural derivatives	50
10.The audit risk control	51
Conclusion	52



#### **Generality**

The Internet is promoting the better development of all walks of life. In the cultural industry, video, live broadcasting and payment are emerging in an endless stream. However, the changes of many business modes only extend the form from offline to online. However, the difficulties faced by the development of cultural industry are not improved, and many new problems are born. For example, poor interactivity, easy to be pirated, content producers can not get a reasonable reward, quality content can not be displayed, and so on.

The characteristics of the blockchain system, such as transparency and data non-tampering, are fully applicable to student credit management, enrollment and employment, academic, qualification certificate and industry-university cooperation, etc., which are of great value to the healthy development of the cultural industry.

At present, Singapore's multiculturalism studies are mainly historical or realistic, but lack the perspective of trend development. The implementation of Singapore's multiculturalism policy is characterized by stages, and the development of Singapore's multiculturalism policy faces many difficulties in the context of globalization. Based on this, the policy development of Singapore multiculturalism is changing from "mosaic style" to "pluralistic integration".



In order to meet people's growing cultural needs, HVCC will strive to develop a new pattern of "taking regional national culture as the connotation, cultural industry as the main line, and brand operation as the core". HVCC will integrate big data resources, super computing resources and intelligent education resources, promote the application of blockchain technology in the field of education, and promote the development of cultural undertakings to a higher level by means of information technology.

HVCC is a full-ecology ecological platform for international cultural exchange and value sharing "to re-depict the development of cultural industry". Adhering to the user-centered, combined with the block chain technology and the general economic theory, to create a multi-role social interaction transaction ecosystem, and realize the multi-win-win business model of technology supporters, professional service providers, product providers and consumers. Through the comprehensive application of block chain + big data and other technical solutions, it promotes the transparency, rationalization of market resource utilization and decentralization of the cultural industry, builds the industrial moat in depth and forms its unique competitive advantage.

As block chain technology combined with cultural industry model of active practitioners, HVCC the first opening of the world's first based on



cultural exchange "block chain + + education financial" business ecology, the ecological use of chain blocks as the underlying technology, with innovative education mode of financial problem solving cultural industry worldwide shortage of funds, not only committed to let every cultural workers have better growth opportunities, and more importantly, HVCC also to be able to create digitally asset-like produced in the process of value, personal value, cash and circulation.

The HVCC literature and history license is providing impetus for the formation of economic development and the gathering of related industries by driving the comprehensive and diversified terminal consumption of humanities and history, movies, entertainment, health maintenance and sports.

As the explorer of deep mining and experiencing cultural consumption and the pioneer of the international development of cultural industry, HVCC focuses on the research and development of blockchain business with global market position and takes the lead in realizing the real application scenarios of blockchain + cultural industry. Just like the Internet, which wanted to subvert everything in the past, has a magic power. This new technology may fundamentally solve the problems faced by the development of cultural industry globalization. When the blockchain meets the cultural industry, what kind of sparks will



come out from the collision between the two, we will find out the answer one by one in the HVCC blockchain solution.

#### 1.Block chain technology development



#### 1.1. Decentralized application

Blockchain was originally born as the underlying technology of bitcoin. With the increasing market value of digital currencies such as bitcoin, blockchain has become one of the hottest topics in recent years and has been recognized as the mainstay of the next wave of technological revolution.

The blockchain economy is a technology-driven industry whose essence is a decentralized distributed ledger. Decentralisation, in which all transactions take place point-to-point, without the need for any credit intermediaries or centralised clearing houses; Distributed ledger means that when a transaction occurs, all participants in the blockchain will receive information about the transaction on their own ledger. These



transaction records are completely public, encrypted and cannot be tampered with.

Blockchain has been pushed to one climax after another in recent years. Development to today, with the capital inflows, more talent also began into the block chain industry, talent flow and attracting more capital injection, it will lead to a large number of powerful team next to join into the development of the underlying platform, at the same time for the industry to understand the profound people combine from the perspective of industry chain blocks with the existing business model innovation and development.

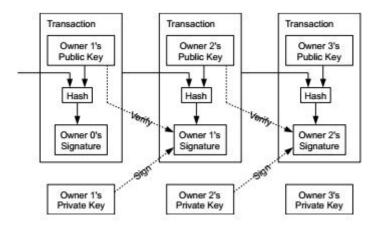
In short, decentralized applications have the following characteristics:

- 1) It must be completely open source, run autonomously, not controlled by centralized organizations, institutions or individuals, and can be improved to respond to market demands, but only by the consensus of users.
- 2) Data must be stored securely, publicly, and redundantly in a distributed network to avoid tampering and single points of failure.
- 3 ) Application visitors consume tokens, and application contributors are rewarded with tokens.
  - 4 ) Applications must use a value-proven cryptography algorithm to



generate tokens.

The decentralized application of blockchain also has the advantages of openness, transparency, safety and reliability, and de-trust. Therefore, it is conceivable that the application of decentralization in payment, data storage, cloud computing, e-commerce, service industry and other economic fields will have a very promising future.



## 1.2. What is the field of cultural industry

The broad sense of consumer behavior can be traced back to ancient times, where people choose a certain object (usually refers to items) to meet the needs of the main behavior, is consumption. Therefore, the phenomenon of human consumption appears together with human beings, and the history of consumption is the history of human development. Cultural consumption can be traced back to the use of writing and various symbols. Here the culture refers to the narrow sense of cultural concept, is the spiritual culture. In the long history of mankind,



the consumption of spiritual culture, including the appreciation of poetry, music and dance, as well as the observation and experience of grand sacrificial ceremony, can be regarded as the real cultural consumption.

With more and more modern and post-modern significance of consumption behavior, consumerism has become the typical logic of this era, and cultural consumption has more and more rich connotation. In the field of consumption, people usually divide the consumption into material products and spiritual and cultural products according to the different types and demands of consumption. The latter is often referred to as cultural consumption. It contains two meanings. One is the consumption of cultural commodities, that is to say, cultural commodities in the form of substance and non-substance become consumption objects. Such as movies, books, radio, television, Internet information and so on. Second, non-physical services, including education, publicity and other services, are provided for the production, development and consumption of cultural products. No matter what kind of cultural consumption, it is permeated with ideological content.

#### 1.3. Characteristics of contemporary cultural consumers

Socrates et al. propagated knowledge as virtue. A man of knowledge is a man of virtue. Plato firmly believed in the concept and truth, while Aristotle pursued truth, goodness and beauty. They basically propagated

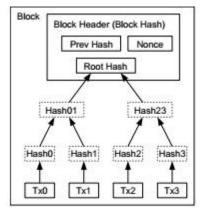


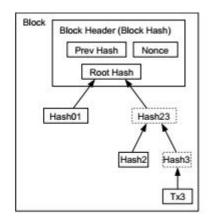
their ideals and beliefs through cultural enlightenment. As an important part of ancient cultural activities, religion also adopts cultural enlightenment, including propaganda, encouragement and punishment, to promote its own ideas and disseminate dominant beliefs.

In different times, people's cultural consumption patterns are different. Contemporary people can not only enrich their cultural life by reading and appreciating traditional texts, but also by appreciating programs in theaters and concert halls. They can also realize cultural consumption through TV, radio, movies and the Internet. The way of cultural consumption in any era is based on the development of science and technology and certain ideology and theoretical system. The development of science and technology and the mode of cultural consumption complement each other. The development of science and technology promotes the new evolution of the mode of cultural consumption, while cultural consumption itself requires and promotes the new development of science and technology. Therefore, it can be said that the way of cultural consumption constitutes people's way of life.

Cultural consumption consists of three basic elements: cultural commodities, cultural consumption market and cultural consumers. In addition, producers and operators of cultural commodities are also important factors in the field of cultural consumption.







Transactions Hashed in a Merkle Tree

After Pruning Tx0-2 from the Block

#### 1.4. The significance of cultural consumption

The significance of cultural consumption to human life is self-evident.

First of all, what kind of cultural consumption reflects the corresponding way of life. In the field of consumption, consumption patterns are constantly changing. "luxury goods have become necessities between generations. People measure their material comfort by the standards they set, so each generation needs more than its predecessors to be satisfied. After a few generations, this process can define "rich" as "poor", and the cultural consumption pattern is constantly changing, which comes from the change of people's lifestyle.

Secondly, cultural consumption brings pleasure and happiness to people's life. Pleasure, generally refers to the need and desire to meet, or sexual desire and lust to meet the psychological feelings and experience.



The pleasure principle comes from the consumption field, which overturns the rational power and rational order of people in the past. Generally, people tend to get the satisfaction of desire and the harvest of pleasure in leisure and consumption. In the field of cultural consumption, people can get visual pleasure through visual psychology. In addition, people can obtain meaning pleasure through the meaning of cultural commodities, that is, the meaning of identity and social relations. Finally, people can also get aesthetic pleasure through the aesthetic appreciation of cultural commodities.

Happiness is a higher level than the psychological experience of pleasure, and has more social significance. People can bring happiness to us through the sense of security created in cultural products. In cultural commodities, human relations are harmonious, human feelings are warm, good people are rewarded, bad people are punished and so on. The sense of security that we expect will make people feel happy and safe. The comfort and lightness of life as well as the connotation of entertainment and pleasure in cultural commodities make people feel comfortable and happy. Cultural commodities also often create a sense of freedom, which successfully and successfully realizes desires, desires and behaviors that are shackled and impeded in real life and cannot be realized, which can bring happiness to consumers from the realization of



freedom. Cultural commodities can also achieve a sense of happiness that satisfies the consumers' sense of value by virtue of their inherent values, outlook on life and aesthetics, which are in line with cultural consumers. Information industry, tourism industry and audio-visual industry can bring such happiness to people's cultural consumption.

Thirdly, cultural consumption promotes the development of cultural undertakings and changes cultural discourse power to some extent. Today, culture has also become an important industry, that is, cultural industry, which plays a significant role in a country's economic life. Even its income is much higher than that of other industries, especially in developed countries. The development of cultural industry certainly promotes the advancement and development of cultural consumption, which not only promotes the output value and income of cultural industry, but also promotes the development of cultural undertakings of a country and a nation. Rich cultural consumption life includes information culture consumption, tourism culture consumption and audio-visual culture consumption, among which the development of information culture has greatly improved people's information sources and cognitive channels. Closed information channels usually lead to a closed way of life. However, in the developed information age, it is easy to promote the public to participate in cultural life and political life.



Information in the Internet age truly achieves the condition of "knowing the world without going out". With understanding, there will be discrimination, there will be knowledge and choice, so that people have a diversified behavior of life. Although cultural hegemony is everywhere, every individual constantly considers, agrees with or opposes, values or ignores, participates in or stays away from it, and the right to speak in culture is diversified.

#### 2. Cultural industry pain point

As a sunrise industry in the tertiary industry, cultural industry has a close relationship with economic development. In theory, cultural industry does not create and increase social wealth, but merely redistributes social wealth in different regions and industries through cultural consumption of cultural workers. However, culture can transfer social wealth from the source to the reception. For a region, the inflow of social wealth from other places is undoubtedly an economic "injection", which not only brings huge amount of foreign exchange, but also promotes the economic development of a region.

#### 2.1. The current situation of cultural industry development

**2.1.1.**Industrial system begins to take shape, but overall strength slant weak. There are more than 300,000 profit-making cultural industry institutions, forming a preliminary cultural industry system consisting of



the entertainment industry, performance industry, audio and video industry, network culture industry and cultural tourism industry. But overall, the scale of the cultural industry is still small, weak strength. In contrast, in developed countries, the cultural industry has already become a key or pillar industry of the national economy, accounting for more than or nearly 20% of the total GDP.

- **2.1.2.**Industrial layout tends to be reasonable, but regional development is unbalanced. Focusing on developing creative industries, exploring historical and cultural resources, highlighting national characteristics and other ideas, we will vigorously develop cultural industries and initially form cultural industrial belts with different characteristics. The industrial development path with regional national culture as its connotation, cultural tourism as its main line and brand operation as its core presents the unbalanced regional development trend. From the perspective of the number of cultural industry units and the regional distribution of the number of employees, some regions still have problems of single development ideas and similar industrial structure.
- **2.1.3.**Industrial main body expands, but intensive change is not high. In recent years, as the government encourages and supports capital to enter the cultural industry, cultural enterprises have developed rapidly.



However, the scale of cultural enterprises is small and the intensification is not high. Cultural enterprises have low input-output efficiency and low ability to transform cultural resources.

2.1.4. The degree of industrial outward orientation has been improved, but it is at a disadvantage in international competition. In recent years, the government has actively implemented the strategy of "going global" in culture, and cultural enterprises have cultivated a number of well-known cultural brands with national characteristics, independent intellectual property rights and originality by enhancing competitiveness and increasing export of products and services. The structure of copyright trade has been improving year by year, and the income from overseas performances has been greatly increased. Some programs have approached or reached the price level of international performance products. However, the cultural industry is still at a disadvantage in the international competition. The cultural trade deficit is serious, and the import and export proportion of cultural products and services is about 10:1.

#### 2.2. Problems in the development of cultural industry

The cultural industry takes the digital economy as the carrier, and the forms of creation, production and cultural consumption are increasingly digitized, networked and IP. The application of blockchain in the field of



copyright is tamper-proof and traceable, which ensures that the creativity of each creator is protected and has a huge impact on the possibility of cultural property rights transaction and the reconstruction of cultural industry.

- **2.2.1.**The management system of the cultural industry is not sound. The management of cultural industry is divided into different sections, multi-level management, government and enterprise management. At present, most regions have not yet established a unified and efficient management system for the cultural industry. Relevant departments such as culture, radio, film and television, publishing and tourism operate independently and have decentralized management.
- **2.2.2.**The regulations and policies of the cultural industry are not perfect. Local cultural legislation is restricted, which increases the difficulty of local legislation. Cultural industry policy is not perfect, the region has not yet developed to promote the development of cultural industry preferential policies. The financing difficulty of cultural enterprises is widespread, and there are still obstacles for capital to enter the cultural industry in some areas. The cultural industry policies formulated and issued by the state are difficult to be implemented in some regions.
  - 2.2.3. Backward communication mode of cultural products. The



spread of cultural products in the film and television industry, film and television industry, publishing industry and other industries still stays on the basis of traditional technologies. The application of high and new technologies is not innovative enough.

**2.2.4.** Market development capability is not strong, not enough attention and research on the cultural market, market development consciousness is not strong, the marketing ability is generally low, adapted to market economy system has not been formed the marketing pattern, cultural products market share is low, even to a high quality product form the industrial chain, failed to get effective mining product added value.

#### 3. Application opportunities of block chain

In fact, due to the long industrial chain of the cultural industry, many intermediate links are involved in the transaction process, which brings great profit opportunities to cultural practitioners. Although blockchain applications are still in their infancy, they are likely to become mainstream in the cultural industry in the coming years, saving cultural companies billions of dollars a year in costs in areas such as payments and clearing.

The value of blockchain in the cultural industry lies in that the network it forms is a transparent and untamable global database. Every



user on the network can upload and obtain cultural data in real time. Once a transaction occurs, the database will quickly and accurately record the data information in the reservation and payment system, which can not only prevent overselling, but also flexibly adjust the pricing according to the real-time supply and demand. In addition, the cultural industry can maximize revenue by connecting smart contracts with other services such as market forecasts and cultural insurance on the blockchain.

We apply blockchain technology to settlement, reservation process, inventory management, loyalty point management, intelligent contract, consumption tracking, identity recognition and other aspects in the cultural process. From a cinema perspective, blockchain technology can be used with only minor software modifications. From a user perspective, the external impact of using blockchain technology on the user interface is minimal. These factors create good external conditions for cultural institutions to introduce blockchain technology.

#### 3.1. What is HVCC?

HVCC is a decentralized application platform. It provides a series of SDKS and apis to help developers build decentralized applications based on Javascript and side-chain technologies. HVCC is committed to creating an easy-to-use, fully functional, out-of-the-box system by



providing integrated industrial solutions such as customized side chains, smart contracts, application hosting, and cultural service chain.

HVCC will use blockchain technology, distributed storage, biometric identification, cryptography, big data, mobile Internet and other technologies to create global borderless cultural tokens. To leverage the electronic digital identity authentication as individual consumers innovation, enhance consumer personal information security and its use convenience, alliance with links into a variety of cultural services token ground use, realize the consumers in cross-border cultural exports, to trust, disintermediated point-to-point transactions, through the way of static and dynamic, to track consumer information behavior storage, creating the world's first culture industry chain development platform.

In other words, HVCC is the first application of blockchain in the field of cultural consumption, which is to build an irreversible global ecological community of cultural output with blockchain technology. As a decentralized culture output based on the block chain service market platform, through the block chain network linked directly to the global cultural service providers and consumers, is related with the cultural service, build up a service based on trust, motivation, ecological, technical support through block chain, build a disintermediated cultural ecological community.



With the HVCC ecosystem, developers can quickly iterate over their Javascript applications and publish them to the built-in app store. These applications can be downloaded and executed by distributed nodes in the platform and serve ordinary users. The whole process is provided by the consensus network of cultural development chain of big data analysis to expand the market.

HVCC system itself is not only a completely open application, but also a decentralized application. The unit is HVCC. It can interact with the cultural development chain or DAPP by means of two-way wedge. As the bridge and medium for asset conversion between all dapps, the general certificate will be sold to investors in the form of general certificate before the system is released. Once the system is released, the initial core team of HVCC will no longer control the direction of the system, and only the stakeholders of the system and the owner of the license determine the future development of the system.

#### 3.2. Cultural industry license HVCC advantage

Blockchain itself has the characteristics of distributed, trust-free, timestamp, asymmetric encryption, intelligent contract, etc. Therefore, the application of blockchain to the cultural industry can solve the problem of information asymmetry, avoid a large amount of commission from the third party platform, save the intermediate transaction fee and process,



and ensure the authenticity and credibility of each evaluation.

The birth of HVCC will also make visible breakthroughs in information credibility and business intelligence. HVCC has built an industry-leading cultural service platform through advanced blockchain, big data and artificial intelligence technologies. It can not only establish a more fair and transparent cultural export system, but also provide new impetus for the cultural export ecology.

#### 3.2.1.Breakthroughs in traditional industries

HVCC will create a more accurate and complete ecological chain of the cultural industry for users, with three breakthroughs for traditional industries:

First, rebuild the cultural industry trust system. Smart contract is the core concept of blockchain, which avoids the problem of people's trust. No other transaction subject can complete the contract independently, greatly simplifying the relationship of mutual trust between users and merchants, and improving user experience.

Secondly, there has been a qualitative improvement in the quality and efficiency of trading. All content published by the user on the blockchain can be received by the user on the blockchain at the same time, and can be continuously disseminated, but cannot be tampered with. At the same time, both sides use the intelligent contract



mechanism automatic settlement, real-time account, all content safe and transparent, simple and efficient.

Most importantly, blockchain will change operations and cultural derivatives in an all-round way. By establishing the virtual equivalent transaction settlement system in the whole cultural area, the efficiency of cultural services in the whole area is greatly improved. People establish personal digital identity (visa) in the blockchain without going through a third party, and form an independent three-dimensional closed loop, which will make the interests of cultural regions greater.

Based on this, HVCC can effectively solve the problems of the cultural industry and build a benign environment for service and experience.

# 3.2.2Innovation in cultural development models

There are many innovations in this design model, two of which deserve attention:

First, transaction trust is determined by machines and algorithms. Blockchain solves the problem of mutual trust in anonymous transactions by building a trust trading system that relies on machines and algorithms. All participants will identify themselves through cryptography and rely on consensus mechanisms to achieve mutual trust in an environment where trust is not required.



Second, the trading process can be automated by the program. Blockchain automatically executes the contract reached by both parties through programmable intelligent contract, eliminates human interference factors, and prevents denial by either party from the system. Thus promote the economic society into a state of intelligence, the realization of the current economic trading system of qualitative leap.

Due to the security of public chain and the balance between the increasing transaction volume and the capacity of the current network, the application field of blockchain in the future will be dominated by alliance chain, private chain or mixed chain. The bitcoin model adds to the cost of maintaining the blockchain network and is not entirely applicable to low-value, low-risk transactions. Considering the improvement of efficiency and security, the future will be composed of smart public chain, private chain, or a hybrid chain composed of smart public chain and private chain.

First, multi-party participation. In the multi-party participating system, HVCC technology has great application potential, such as in the payment system, monetary system, etc.

Second, auxiliary transactions. In the process of complex procedures, HVCC's automatic identification and non-tampering features can reduce the error rate. Today, HVCC technology has been applied to transaction



clearing.

Third, sensitive information transmission. HVCC has unique advantages in terms of confidentiality and flexibility in transmission when it is necessary to transmit sensitive information. At present, it has started to try its application in many fields, such as scenic spot evaluation. At the same time, destination evaluation is conducted with the help of HVCC.

Fourth, a lot of high frequency. High volume and high frequency consumer flow usually occurs in the fragmented and scenario business model, which requires high response speed and error rate. The real-time calculation, account checking and data transaction of HVCC can highlight the value.

Fifth, regulation is highly transparent. Regulation is highly transparent and requires full consideration of all parties' data security and regulatory requirements to strike a balance. HVCC can achieve internal intercommunication and external encryption, so as to solve the regulatory game and reduce the consumption of social resources, which has great application value.

Sixth, an important concept related to HVCC, namely intelligent contract. A smart contract is a set of commitments defined in digital form, including agreements on which contract participants can enforce these commitments. Simply put, contracts are executed by machine and code,



and in a contractual society, the future holds great promise, especially for cultural services.

#### 3.3. The significance of HVCC to the cultural industry

In the traditional cultural industry, there are third-party trading platforms between cultural exporters and real cultural service providers. In the Internet era, third-party platforms can effectively provide information aggregation, reservation guarantee, credit rating and other services, but at the same time, the profits of these platforms are also considerable. However, HVCC makes the links between cultural workers and service providers become transparent, and transactions can be conducted directly through the Travel culture output chain, eliminating the high commission of third-party platforms.

At the same time, the transparency of HVCC is also reflected in all the people in the whole ecosystem. The reduced human and system costs of the platform relying on the block chain technology and smart contract will directly feed back to the participants in the HVCC ecosystem, so that these participants (such as cultural exporters and service providers) can get greater benefits.

The value of HVCC in the development of cultural industry mainly includes the following aspects:

### 3.3.1. Make the queue shorter.



On a global scale, long queues for hours have been widely cited as examples of pain points in cultural output. With the industry expecting 50 percent growth in the next 10 years, the problem will become even more acute.

In response to this pain point, HVCC has developed a digital identification system for cultural exporters. The system uses block chain technology to collect and store the information needed for international authentication and to make the information flow seamlessly between the cultural exporter and the staff, thus making the process of authentication smooth. For consumers, this distributed accounting technology makes their information more secure and controllable; for operators, it also benefits from faster, more efficient and more secure information.

#### 3.3.2. Make the data more valuable

In today's business, data has become a very valuable commodity. The correct use of data will give the enterprise insight and competitive advantage. Cultural exporters create a lot of data in the process of cultural output, which is very valuable to service providers, but at present, this information is limited by the middlemen who provide fast booking services. The result is an ecosystem that increases the cost of cultural exporters and asymmetric information between cultural export service providers.



HVCC is trying to eliminate the intermediary part of the supply chain through an open source block chain. Users in the block chain have the right to collect and profit from their own cultural output data while avoiding peek at the data and receiving tokens as compensation for sharing cultural output data with service providers. These tokens can be exchanged for a variety of products and services, or directly into money. The cultural export service company participating in the HVCC can obtain detailed information about the cultural exporter. In addition to individualized marketing, it can also provide consumers with customized cultural export products, or products based on the cultural exporter. Preference is given to the promotion. This mechanism brings together cultural output and service providers to form a complete closed-loop ecosystem and bring value to all participants.

#### 3.3.3.Disrupt existing online booking models

In the Internet age, there are many cultural export service companies, which almost monopolize the online cultural product booking. But the current booking model for cultural exporters and companies have brought a great cost. Booking on these sites is often subject to high fees, which are rising as barriers to entry form. HVCC will break this barrier based on blockchain technology.

By issuing token, HVCC is trying to connect cultural exporters directly



to service providers, and significantly reduce consumer fees and service providers' costs, allowing consumers to enjoy more services at lower costs. By using smart contract agreements to save costs for participants in the cultural export industry, and because of its non-profit status, it ensures that no unnecessary fees are added by intermediaries throughout the booking process.

#### 3.3.4.Let consumers get better cultural consumption guidance

Identifying the highlights of a region or identifying potential attractions is an important part of developing a cultural export plan for consumers. But the lack of information transparency and the lack of profit models are causing a lot of problems. HVCC's cultural export experience is trying to provide consumers with a service that is different from the traditional culture strategy.

HVCC has created an ecosystem based on block chains that motivates local operators to provide real measurable cultural services to consumers on the platform and thus turns their local knowledge into revenue. Through HVCC, a community of cultural exporters and operators of cultural export destinations, a decentralized cultural export agency has been established. Here all value flows between users rather than by intermediary structures in some supply chains. Because of the use of block chain technology, based on trusted content and transparent



mechanism, feedback and sorting in the system become more reliable.

VCC is committed to helping consumers seeking more personalized experiences and helping them quickly find something that suits their unique needs.

# 3.3.5. Make reservations very reliable

Frequent inaccuracies and even loss of reservation information bring a lot of stress and anxiety to the consumer's experience. Despite these bad experiences, consumers have to pay service providers at every node of the entire supply chain.

Because the data of block chain is immutable and distributed accounting technology, HVCC solves the above problem through block chain technology. By recording immutable general ledger on block chain, it reduces the possibility of such errors as loss of reservation information. And reduced the level between the seller and the consumer, thus greatly improved the consumer experience.

More importantly, technology improves the security of the system and protects the stability of the entire ecosystem. In addition to greatly improving supply chain efficiency and reducing operating costs, consumers themselves benefit from lower cost bookings.

## 3.3.6. Promote loyalty interoperability

In the highly competitive cultural industry, loyalty reward business



has been developing iteratively and has been exploring a better way to change. Until recently, with the advent of blockchain technology, there was an opportunity for new changes in the loyalty rewards business. By building its system platform based on blockchain, it tries to fundamentally change the loyalty. On the HVCC system, cultural-output service providers can create their own loyalty tokens that can be exchanged not only for rewards of a given brand, but also for real or even legal currency. On the platform, users can apply for their own tokens, which can be redeemed for rewards from different service providers, not just the company. Meanwhile, you earn more tokens by staying active in the community. For different participants, the rewards achieve better data and transparency. In this ecosystem, the satisfaction of consumers is greatly improved, which also gives more value to the participating service providers.

In a word, cultural consumption itself should be comfortable, w orthwhile and, most importantly, enjoyable. However, various interm ediary charges, booking errors, incorrect comment information and I ong queues have brought troubles to the cultural exporters who pursue happiness. HVCC is trying to address these pain points through the application of blockchain technology.

## 4. HVCC basic information



## 4.1.Fundamental

As a scientific and technological innovation project aimed at cultural industry, HVCC team has long been studying the role of block-chain technology in promoting the development of global cultural industry. The platform will be the first culture-wide industry chain service platform using blockchain technology in the world.

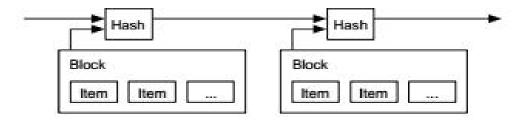
On the HVCC platform, all participants fall into three categories: providers, experiencers, and aggregators. The provider is a company or individual that provides services, local entertainment, etc., all on the cultural output axis; The experiencer is the user who buys the experience; The aggregator is the existing traffic party that aggregates a single category, such as culture store, a certain culture output expert, etc. Every year, the HVCC injects token into the incentive pool at a certain increment. Conduct token incentives for individuals according to different incentive types of behavioral rewards or token rewards.

or example, in a certain period of time, users will get a certain amount of incentives according to the length of their cultural consumption and the number of comments published. These public comments cannot be modified or deleted. On the one hand, users can get token rewards for their published comments; on the other hand, the experience provider will try to improve the experience degree, increase



service details and temperature in order to accumulate more favorable comments and obtain more orders. At the same time, part of the token will be used to reward users with favorable comments. As HVCC is a point-to-point transaction, there is no intermediary agency to take commission in the process, so it is a transaction to maximize the interests of both consumers and operators.

HVCC is a platform that USES blockchain to build a globally Shared digital ledger to track and protect cultural experiences of quality. To create a unique personality for each culture, many cultural service providers will exist on the blockchain. Its technology helps ensure and regulate the user experience through a single source throughout the entire cultural industry chain.



# 4.2.Design philosophy

Reducing fraud, reducing cost and improving efficiency are prominent advantages of blockchain technology. The wide application of blockchain technology, in order to accelerate the arrival of "cultural internationalization development", is bound to cause the change of



government management form and social credibility, we believe that the government is very necessary to participate in the development and supervision of blockchain, should encourage in-depth research on blockchain technology and the continuous practice of blockchain application.

# 4.2.1. The design idea of economic level

From the economic and social point of view, block chain economy has matured. Low cost is an important design idea of block chain technology. In the block chain system, the participants can trade without knowing the other party's basic information, thus realizing "trust without trust" and changing the trust mode with the third party as the center in the traditional model.

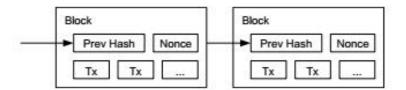
Many block-chain based solutions can improve the existing business rules, build a new industrial cooperation model, and improve the efficiency of collaborative circulation. Central banks and major commercial banks, as well as the United Nations, the International Monetary Fund and many government research institutions, have focused heavily on the "blockchain". Block chain can provide systematic support for economic and social transformation and upgrading. The obvious advantage of block chain is to optimize business process, reduce operating cost and improve synergy efficiency. This advantage has



already been found in financial services, supply chain management, intellectual property, intelligent manufacturing, social welfare and service industries. The field is initially reflected.

# 4.2.2.Design ideas at the Technical level

Value interaction is the basis of the establishment of mutual trust, block chain technology is that it implements a new revolutionary way of trust, through the design of the technical innovation, make the value in the process of interaction can trust relationship between people and technology of trust, even by the automation of certain processes, the realization of the business activities to lower cost.



# 4.3. The core technology

A blockchain is a data structure that makes it possible to create and share digital transaction ledgers. Blockchain USES encryption to allow everyone to add permissions to the ledger in a secure way, without going through a central authority. Once the data block is recorded in the



blockchain ledger, it is basically impossible to tamper with or remove the data record.

Self-verifiability of nodes: HVCC adopts block chain structure to store data records. The modification of some records will damage the integrity of block chain structure, which can be quickly verified and recovered from other nodes. In addition, each billing node has its own private key, and each block contains the signature of the node's private key. The modification of data in the block can be verified by signature.

Multi-node quasi-real-time data verification: when the node's private key is stolen, it is possible for malicious users to modify all the data on the ledger chain. HVCC provides a quasi-real-time data comparison mechanism among multiple nodes, which can detect tampering of certain node's ledger data in a timely manner.

## 4.4. The development trend

With the help of the security features and trust mechanism of blockchain, token will become an important technology engine for the development of digital economy, which can play a role in multiple industries and has great development potential in industrial application fields.

However, from the perspective of system requirements, to build applications on the blockchain, three underlying capabilities of



blockchain solutions are required: first, the perfect compatibility/switching ability between old and new systems; second, the brand-new system security capability; third, the user privacy protection capability applicable to multiple scenarios.

The cultural development of HVCC blockchain will be open to the whole cultural industry chain, providing each service party with the possibility of tracking and monitoring. This is the first blockchain innovation technology that covers the whole value chain of the industry. Blockchain can also help Banks dispel financing doubts and improve the efficiency and transparency of scenic spot development and operation. When the whole platform is completely completed, it will be operated as an open source platform, and relevant cloud platforms can also be developed based on it.

## 5. What are we gonna do

As an active practitioner of the combination of blockchain technology and the token mode of cultural industry, HVCC takes the lead in opening the world's first green ecological circulation business circle based on "blockchain technology +token thinking + cultural industry + smart big data". By taking advantage of the features of HVCC security, borderless and borderless payment and settlement low cost, the smart public chain will deeply cultivate the cultural industry and construct an

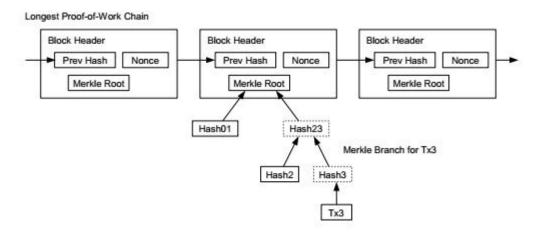


ideal cultural ecology. HVCC will not only cultural entertainment and derivatives into token credit system, the future will also series culture, film and television industry, ethnic tourism, cultural creative industries, schools, education and training industry, wisdom, health characteristics catering and hotel industry, new energy industry alliance of online businesses such as whole industry ecological system, integrated "and live line study tour for entertainment", omni-directional, ultra deep layout, building block chain decentralized global wisdom token economic platform.

## 5.1Build a blockchain e-resume

This paper studies the structure of Singapore's cultural development and gives the blockchain system a new name -- "Singapore culture internationalization development block chain". As soon as the system takes effect, it becomes an officially recognized management mode, and the securities, stocks, derivatives of other financial institutions, even the accommodation and vehicle registration information of scenic spots will be transferred to the blockchain system. In this way, government departments can also supervise the services provided by all parties in the cultural industry in real time.





# 5.2.Create a hybrid cross-chain service based on three forms of blockchain

# 5.2.1. Personal application services based on public chain

Private chain: internal application of the service provider, namely the application chain of terminal information flow in each link of the cultural industry;

Alliance chain: the application of cultural institutions in the region, that is, each institution is a node and a block;

Public chain: system revenue and interests, namely for the vast majority of cultural application of the basic chain.

Just as the unrestricted flow of information has changed the way humans interact with the digital age, the unfettered flow of value may also change human life and travel culture. Block chain has produced encryption tools, a hybrid of digital anonymous tools and digital registration tools, which is by far the most frictionless value form.



# 5.2.2.Multi-level traceability system and application based on alliance blockchain

In addition to the products such as hotels, transportation, scenic spots and other cultural services, the products such as cultural souvenirs, local specialties and other derivatives can be registered and traced back to the source.

We are taking a balanced approach to support product innovation and competition in the cultural economy. For example, the application in the block chain can revolutionize the post-sale problem of cultural products. This system can trace back to the source of the transaction at the same time, ensure the vital interests of the cultural, and further promote the development of the whole cultural industry chain.

## 5.3. Which users are HVCC oriented

Whether in the financial sector, the Internet of things or the cultural industry services **HVCC** committed sector, is to providing institution-level blockchain infrastructure, industry solutions, and secure, reliable and flexible blockchain cloud services. Through high-performance blockchain services, on the premise of achieving secure and reliable transaction docking, and by means of visual data management, the comprehensive cost of institutional operation can be effectively reduced and operational efficiency can be improved. In



addition to providing some basic services, HVCC platform will also provide technical and tool support, mainly for the following groups:

# 5.3.1.Developers

Developers can develop and submit DAPP. in accordance with the application development rules and business code of conduct of the HVCC platform and in accordance with the relevant specifications DAPP's business model is either free, priced, or paid for as a value added service. It is entirely up to the developer to decide which business model to adopt.

### 5.3.2.Cultural services

The tools provided by the HVCC platform can easily create a complete blockchain, and more importantly, it can be wedged into the main chain of the HVCC platform or the blockchain of ethereum to realize the connection with the mature electronic currency, which is very attractive to the cultural service providers, especially the operators. Blockchain technology is used to provide information and data that are originally closed within institutions and the Internet, and even to link with relevant system data of regulators, so as to enhance transparency and establish a good image and win a good market reputation.

## **5.3.3.Ordinary users (cultural consumers)**



Ordinary users can download, install and use decentralized applications through the HVCC built-in app store, which is similar to the mobile app store. The HVCC system supports a variety of types of decentralized applications that ordinary users can consume and benefit from by contributing content. Developers and ordinary users will form a thriving ecosystem.

## 6.Technical features and advantages

The HVCC is a global ledger that determines how to modify a Shared global state transaction. The commands contained in these transactions can change the validity of other transactions. For example, you cannot withdraw money from your bank account until your check is deposited. It is impossible to know whether a transaction is valid until all previous transactions affecting a particular account have been processed.

## 6.1. Resolver technique

The resolver provides an example of what can be achieved on a single thread. It is a trading platform for end customers with the goal of being the fastest trading platform in the world.

The business logic processor is where all sequential transaction and order matching occurs. It is a single thread that can process millions of orders per second. This architecture can easily be used in the field of cryptocurrency and blockchain design.



The role of the input splitter is to collect orders from many users from different sources and assign them to a certain order. When they are ordered, they are copied, recorded, and broadcast to many redundant business logic processors. The input resolver is highly parallel and can be easily subcontracted to a clustered computer system.

When the business logic processor has finished processing the input, an output resolver is responsible for notifying those who care about the results. This is also a highly parallel task.

HVCC can execute 6 million transactions per second using a single-threaded sample processor and a Java virtual machine in a business logic processor. If this is achieved, cryptocurrencies and smart contract platforms will not need to consider a clustered network solution with less than 10 transactions per second.

# 6.2. Technical advantages

# **6.2.1The high performance**

Designing a high-performance blockchain isn't rocket science, and it doesn't require complicated protocols or splitting tasks among all the nodes in the network. Instead, the most important thing needed to build a high-performance blockchain should be to remove computing tasks unrelated to critical, order dependent, and evaluation from the core business logic, and to design a protocol that helps optimize these



matters.

To build a high-performance block chain, these are several things that must be achieved:

Keep everything in memory, avoid synchronous primitives (locking, atomic manipulation), and avoid unnecessary computation on business logic processors.

Because memory is designed in high parallel, it is becoming cheaper and cheaper. The amount of data needed to track everyone's account balance and permissions on the Internet can be placed on RAM memory smaller than 1TB and can be installed on a commercialized (high-end) server motherboard. Before the system was adopted by 3 billion people, such hardware would be seen on ordinary desktop computers.

The real bottleneck is not the need for memory capacity, but the demand for bandwidth. In the case of 1 million transactions per second and 256-byte per transaction, the network will need the amount of data per 256MB per second, that is, the bandwidth of the 1Gbit/s. Such bandwidth is not common on ordinary desktop computers. However, this kind of bandwidth is only one point of the second generation 100Gbit/s bandwidth.



In other words, block-chain technology can easily store everything in memory and, if reasonably designed, can be extended to support million level transfers per second.

# 6.2.2. High speed access

In single-threaded systems, processor cycles are scarce resources that need to be retained. Traditional blockchain designs use hash calculations based on cryptographic algorithms to generate a globally unique ID system that is statistically free of collisions. The problem with these calculations is that they consume more and more memory and processor cycles. This method takes significantly more processor time to find the records of an account than a direct array index. For example, 64-bit integers are easier to compare and operate with than 160-bit ids. A larger ID mechanism means less space in the CPU cache and more memory is needed.

To provide the industry with a possible alternative to existing platforms, high-performance blockchain technology is essential for cryptocurrencies and smart contract platforms. To be able to handle a higher level of transactions per second than VISA and MasterCard combined, the HVCC was redesigned from the ground up. Through the authentication mechanism, the block network can confirm transactions in an average of one second, with the only limit being the speed of light.



With HVCC trading speeds that can be executed in a matter of seconds, unlike centralized exchanges, they can set priority orders or hide orders in high-frequency trading and put all traders on a level playing field.

## **6.2.3.Safety**

The dollar, euro, and gold have three times as much asset support on exchanges as traditional central exchanges. Those traditional banking systems often require at least 100% of reserves. Even if these exchanges can do it, a hack, error, or theft could easily turn the 100 percent reserve system into a fictional reserve system. HVCC will be solvent in any market by always maintaining at least 100% of reserves.

## 6.2.4.No limitations

You can trade any amount at any time, from anywhere, and without any cash limit. For all other legitimate compliance platforms, daily withdrawals are limited to an order of magnitude of thousands of dollars. If you want to go beyond these limits, you have to provide a number of documents to upgrade your level. Some exchanges, even limit what your money can only be used after withdrawals. There are other exchanges that ask you to document how you got the digital currency. With the advent of HVCC, your account will no longer need anyone's approval and you will have full financial freedom.



#### **6.2.5.Low rates**

Since each transaction costs only a few cents, HVCC must be the cheapest exchange. Other exchanges will charge a certain percentage based on your trading volume. HVCC is cheaper than traditional exchanges.

## 6.2.6. Efficient operation

Provide comprehensive, real-time, visual operation and maintenance management system, quickly identify system status, for different user needs, can support cloud deployment, server deployment and other deployment methods, adapt to a variety of needs.

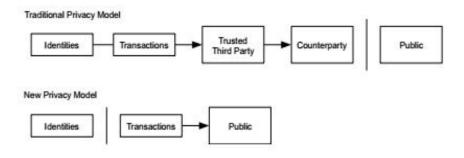
It should be noted that the performance performance achieved by the HVCC is a highly dependent transaction protocol. It is not possible to go to the same level of performance if you want to run the business logic on a virtual machine that performs an encryption algorithm operation and calls all objects with the recognizer. The block chain is inherently single-threaded, and the performance of a single-core CPU is one of the most shortage and the most difficult to extend in a variety of resources. the hvcc is designed to enable the execution of this single thread to be extremely high and efficient.

## 6.2.7.Conceal

You can protect your privacy by using HVCC. Like bitcoin, all



transactions are fully public but don't need to be tied to your real identity. No irs paperwork is required, and no one will ask for a copy of your passport or a credit report.



# **6.2.8.Open source and full transparency**

The entire exchange is open source, supported by a very open community. Another advantage of this block chain is to use the transparency of the system to promote transaction compliance. In other words, smart contracts can be used for real-time supervision.

## 6.2.9.Scalability

If two unrelated accounts do not share any common dependencies, theoretically transactions between the two accounts can be processed at the same time. In fact, identifying which transactions are truly independent in a ledger driven by smart contracts with arbitration conditions is tricky. The only way to ensure that two transactions are truly independent is by maintaining completely separate ledgers and then periodically transferring value between them. If you want to use



such a trade-off in performance performance, you can think of it as the relationship between a non-uniform Memory Access (NUMA) and a Uniform Memory Access (UMA) architecture.

In fact, the consistent memory access architecture is easier for developers to design. Inconsistent memory access architectures are often used as a last resort when building supercomputers and mainframe clusters.

# 7. Token, a service based on public chain

# 7.1. Development and distribution methods

**7.1.1.**In order to improve the centralization of HVCC applications and the needs of commercial applications, the corresponding token.token code: HVCC (transliteration of literary and historical token is issued: the total number of token), HVCC token constant distribution is 990 million;

#### 7.1.2. Allocation

- 1 ) HVCC token distribution scheme circulation application 74.5%, technical team 5%, operation team 10%, foundation 5%, airdrop 5%, first-round release 0.5%;
- 2 ) The HVCC token lock warehouse held by the technical team, operation team and foundation for five years shall be gradually released by 5%, 25%, 30%, 30% and 10% respectively in five years.



3 ) HVCC token destruction mechanism and value guarantee: 30% of the annual project profit is used to recycle the HVCC token, which is gradually released at 20% in five years.

## 7.2. Public chain-based services

Under the guidance of the design principle of "independent innovation, security, efficiency, openness and sharing", the overall architecture of HVCC scheme is divided into three levels: at the bottom is the Trust SQI platform independently developed by HVCC, and Trust SQI provides the functions of blockchain basic services for the upper application scenarios through the interfaces of SQI and API. The core is positioned to build a leading institutional-level blockchain infrastructure platform. Platform product is among the service layer Trust Platform, at the bottom (SQL) Trust built high availability and scalability of the block chain application foundation Platform products, including sharing books, forensic services, sharing economy, digital assets, such as multiple directions, integrated product function, the basis of related areas to help institutions fleetly the upper block chain application scenario.

## 7.3.Trading

A transaction abstraction layer is built into the HVCC system. Almost all functions of the core system are built on transactions, such as transfer, vote, app store, recharge, cash withdrawal, etc. Subchains themselves



can also implement their own different types of transactions. The main differences between transactions are the type of transaction and the asset. The data structure of the underlying transaction is as follows, and the extensions are stored in different asset tables depending on the type.

Transaction{

required VARCHAR(20) id;

required VARCHAR(20) blockId;

required TINYINT type;

required INT timestamp;

required VARCHAR(21) senderId;

optional VARCHAR(21) recpieHVCCd;

required BIGINT amount;

required BIGINT fee;

required BINARY(64) signature;

optional BINARY(64) signSignature;

optional TEXT signatures;

required BINARY(32) senderPublicKey;

## 7.4.Account system

Each account of the HVCC consists of a password, a pair of public and private keys, and an address. Users can also set an additional second password. Note that unlike bitcoin, where there is only one address for



each account, there are multiple addresses and private keys for each wallet pair.

Passphrase is an international standard mnemonic for generating deterministic wallets. This mnemonic is more memory-friendly than binary or hexadecimal characters. The password is generated by converting a 64bit multiple length of entropy into a number of words. The HVCC system selects an entropy length of 128bit and converts it into 12 words. Password as a password, by the user custody, not public, once lost users will lose the ownership of the corresponding account. Password form is as follows:

barely decline dust stamp protect color certain cup arena busy latin shell

The key pair includes public key and private key, which are generated by sha256 of password and ed25519 Edwards curve signature algorithm. The form is as follows:

Public key:

9989388b220a13465e49f52df5ba28ba08eb1e7a973320347f9687a

Private key:

91e891f653e3ed0232d8c7de2e72b625d50d48593fc0fb570c0db25

Adk3904832m3ms4alkdlfk050rew9g5f43dlkdkgkikg4df2oiifr3lgjlgjk4gk6lk

The account address is the first 8 bits of sha256 hash of the public key, which is converted to bignumber after reverse order, in the form of:



## 5034187504202890358

The key pair includes public key and private key, which is seeded by sha256 hash of password, and then through ed25519 Edwards. The account address is the first 8 bits of sha256 hash of public key, which is converted to bignumber after reverse order.

# 8. HVCC governance architecture

## 8.1. Establishment of wisdom public chain foundation

How to take token thinking and blockchain technology application industry system as the core engine to further promote the development of the aircraft carrier global cultural industry, so that everyone can build and share the global cultural industry value network system in the new era of blockchain, which is the reason for the birth of smart public chain foundation.

The intelligent public chain foundation (hereinafter referred to as the "foundation") is a non-profit company established in Singapore. The foundation is committed to the development and construction of the application of blockchain in the cultural industry, as well as the advocacy and promotion of governance transparency, so as to promote the rapid development of the cultural ecological community.

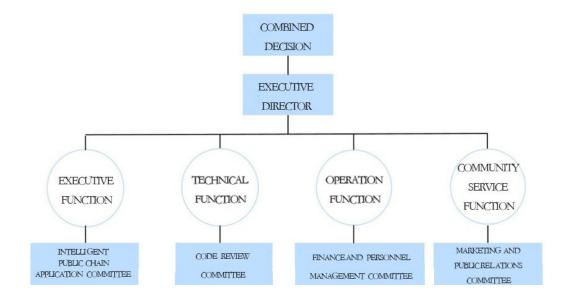
The design goal of the governance structure of the smart public chain foundation is mainly to consider the sustainability, management



effectiveness and fund raising security of the open source community projects. The foundation is composed of developers and functional committees, and its organizational structure mainly consists of decision-making committee, code review committee, finance and personnel management committee and marketing and public relations committee.

## 8.2. Governance structure of smart public chain foundation

The governance framework of the smart public chain foundation contains operational procedures and rules for daily work and special situations. Organizational structure of smart public chain foundation includes (as shown in the figure below):



## 8.3 The HVCC token team

History token has a very experienced international team with many



years of experience in the block chain industry, cryptography and the virtual currency community.

History token project development and operations team a total of eight core leader, by Singapore block scale of chain enterprise and technology association (BEST), the new jump social science university of Singapore (SUSS) and Singapore financial association of science and technology, encryption currency with block chain industry association, Oakland ASB savings Banks (the BEST online bank of New Zealand), the west bank of the Pacific, Singapore's Wright group, GREG company in Singapore, and other authoritative organization of experts, has completed HVCC prototype development.



Dave Collen.

#### CEO

Has nearly 30 years of experience and proven expertise in IT and financial services and the implementation of large, complex projects. Before joining westpac, Dave spent 10 years in a senior position at commonwealth bank of Australia (CBA). Before joining the CBA, he spent



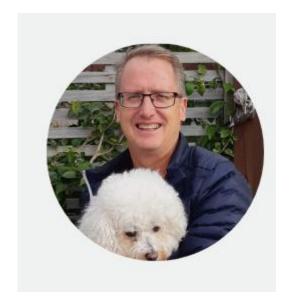
16 years at Accenture, where he was a partner, advising on financial services.



Alexandra Holcombe

Chief risk Officer

A former senior executive at Booz Allen&Hamilton International, worked with chase Manhattan bank in New York City on private banking and International credit audits. He also works in project financing for Indosuez bank in Paris and BarclaysBank in New York.



Bass, Alex



## **CFO**

He has served in institutions such as the Youth Business Trust, as well as in senior finance and management positions in the health sector, and has actively participated in and supported charities.



Rachel Moore

#### COO

As industry spokesperson, rachael ensures that members' views are heard loud and clear, and speaks and meets with those members and organizations that have an impact on the tourism industry, such as the department of conservation and work safety New Zealand. Rachael is committed to addressing issues that impact our members and ensuring leadership on a broad range of industry issues including adventure, tourism and immigration.





Brooke Tomoana

# IT experts

As an IT specialist, the support team ensures that all technology-related platforms are implemented and run efficiently. There are many different professions in many different industries, from tourism to education, interior design to fitness, mainly in management and information system-based technical roles.





## Ebert, Albert

# Director, Center for artificial Intelligence Research

As the director of the artificial intelligence research center, he focuses on its two main aspects -- space and language. "I want to know how humans became intelligent; In particular, how we construct representations of large Spaces in the mind, and how we acquire language.

Professor ye has been fascinated by the brain's ability to map space since he started his PhD at the university of Essex 30 years ago. His theory is that humans and other creatures map large Spaces by defining local Spaces and then connecting them to form a "cognitive map". To prove it, he is creating a series of robots, each with its own cognitive abilities, such as the ability to use sonar to create spatial maps or navigate complex Spaces such as crowded streets. He thought that building various "Albts" would tell us how humans and other species understand space.





ABBOTT, Max general counsel

Professor abbott was the founding director (CEO) of the mental health foundation for ten years. As President of the world federation of mental health (1991-1993), he also co-chaired the first world mental health day. She was recognized by the society of psychology's biennial "public interest contribution to psychology" and other awards. During his 22 years as dean, he contributed to the whole college.



Adnan Ambuki
Director, Research Laboratory

Professor adnan ambuki heads AUT's research lab for sensor



networks and intelligent environments (Sense), which require sensors, intelligence, communication and action. Professor ambuki's specialty is to make these components work in harmony. In the early 1970s, these were key drivers of the emergence of industrial automation, the subject of his master's and doctoral degrees. It is committed to developing a variety of concepts related to the intelligent environment, including indoor space mapping and human comfort, weather data flow mining, outdoor hazard monitoring, network physical tracking and opportunistic connectivity, and mobile crowd perception.

## 9. Main application types

# 9.1.Digital identity management

An estimated 40 million cultural export Copyrights have been recorded as lost or stolen in recent years. But with biometrics and blockchains, identity and cultural output Copyrights can be recorded and stored permanently, with a single click. We don't have to print multiple files for multiple checkpoints in the culture output. Credit card information can also be easily stored.

In addition, it includes: inventory management: B2B cultural inventory trading platform applying blockchain, including movie tickets, hotel rooms, car rental, destination cultural activities and other products. Movie ticket booking: selling tickets on the blockchain, one of the main



advantages of adopting this technology is to speed up the payment process. Cultural agent: on the basis of the ethereum platform, an open source cryptographic token is launched for the exchange of cultural output services and unique local information.

## 9.2.Credit consumption management

The credibility and identity information of operators and users are verified with the block chain technology, and users can only enjoy specific services when their reputation reaches a certain level in the future. The purpose of using blockchain technology is to better establish the reputation platform of merchants and consumers, and also to effectively store identity information.

With the concept of open source and sharing, a global database with high efficiency, transparency and credibility can be established through the block chain technology to create a borderless ecological community of cultural credit consumption sharing. Cultural importers and cultural exporters will record all transactions in one block; Loyalty programs and consumer points can be stored in blocks and can be stored permanently, without questions or hidden fees.

# 9.3. Cultural community comments

websites operated by fraudsters. This fraudulent booking resulted in a loss of \$6 billion. Blockchain can be used to avoid this situation, to help



consumers verify ownership and so on. In addition, by storing documents and identities in block form, cultural consumption providers do not need to manually check whether these reservations are flagged as potential fraud. Consumer information can be accessed securely through the blockchain, and the loss caused by fraud will be significantly reduced.

A decentralized cultural community review platform based on blockchain is also a blockchain serving the real economy of culture. Point-to-point network technology based on blockchain and smart contract enables every user, individual or organization to participate in the construction process of Shared ecosystem, thus forming a point-to-point "decentralized" ecosystem.

## 9.4. Cultural output

Through advanced blockchain, big data and artificial intelligence technology, to create a leading industry culture sharing platform. It can not only establish a more fair and transparent cultural export system, but also provide new impetus for the Shared cultural export ecology. In ecology, various participants can share a new world of point-to-point decentralized cultural output.

## 9.4.1Blockchain + authentication output certificate

In the blockchain, we can store important documents, such as passports, visas, permits, id CARDS and driver's licenses. Use blockchain



technology to provide consumers with a secure single token. Using a virtual or digital passport in a secure single token form on a mobile phone or wearable device reduces the costs and disadvantages of checking documents, and requires a multi-functional and secure system to ensure its global use.

#### 9.4.2.Blockchain + education

It also has great application potential in the field of education and plays an important role in the construction of the Internet + education ecology. Application experience, draw lessons from the financial sector block chain block chain mainly for six major application in the field of education pattern: establish individual letter big data, building intelligent education platform, development degree system, establish a new ecological open education resources, the network learning community "self-organization" operation as well as the development of decentralized education system.

## 9.4.3.Blockchain + consumer insurance

The development of the cultural market and the occurrence of cultural risks will increase the demand for cultural insurance. A number of insurance companies have tried to integrate blockchain with insurance. Relying on the characteristics of multi-party data sharing, the product can be traced back to the whole process from the source to the customer



circulation, so that all parties can not only check the authenticity, but also facilitate subsequent management and claim settlement.

## 9.4.4.Blockchain + hotel accommodations

## 9.5 Cultural derivatives

As a sunrise industry, cultural industry can drive the development of the tertiary industry and related industries and increase social employment opportunities. From the perspective of traditional industries, the capacity of absorbing social employment is limited, while culture, as a labor-intensive industry, can widely absorb social employment with less employment cost and drive cultural souvenirs, etc. Cultural industry can drive the development of regional economy with less investment.

The development of cultural industry can regulate the flow of social wealth in the region and trigger the inducing effect. Due to the low cost of cultural industry input, quick results, cultural areas or cities can rely on its unique cultural resources, attract cultural, thus bringing rich cultural income. The government can use its cultural income to improve the cultural environment and develop cultural supporting facilities, thus driving the development of regional economy. The inducement effect that the increase of cultural consumption stimulates the expansion of economic activities and leads to the further increase of income and



employment opportunities is three times of the indirect effect.

## **10.The audit risk control**

The risk control module is responsible for the risk control of the transaction behavior of the digital asset class in the block chain. The block chain provides an expert model system for risk control. By analyzing and capturing the deep relationship between the massive data, the risk control rules can be adjusted adaptively and the risk can be found in time. Manage risk control and control risk to prevent trouble. The audit module provides audit ability for audit institutions, which can only be used by audit institutions through strict authority control.

The block chain contract part includes two types of contract: standard contract and business custom contract. Standard contracts include one-off asset checks, automatic dealmaking, multi-party co-confirmed transfers, maturities and other relatively simple contracts that are built into the block chain and can be used directly on the block chain. Custom smart contracts include modifying configurations and adding other business logic forms through contract templates, as well as allowing more complex user self-programming contracts to run in a standalone environment.



## **Conclusion**

The cultural industry has the characteristics of "low resource consumption, high driving coefficient, abundant employment opportunities and good comprehensive benefits". HVCC hopes to use the decentralized platform of blockchain to rebuild consumers' full trust in the whole cultural process and reduce people's worry about conflicts caused by unpleasant cultural consumption process. Whether it is data tracking, or the evaluation of the sense of experience, is to give a full guarantee of consumption, there is a great deal of persuasion.

We will work hard to tackle key core technologies, establish an independent innovation system, accelerate the implementation of blockchain technology, and promote the integrated development of blockchain technology and industrial applications. We hope that more institutions will actively participate in the international blockchain open source community. We will learn from the international open source community construction and operation model, strengthen inter-agency cooperation, and carry out exchanges and cooperation centering on tackling key core technologies, research and development of industrial application solutions, demonstration of major applications and formulation of standards. HVCC will build a transparent cultural ecological system and comprehensively improve the ecological



application system of economic value of the whole cultural industry chain.

The ecological application of blockchain as the underlying technology, with the revolutionary token economic model in the global scope to solve the cultural industries of all countries in the world mutual integration, all-round seamless connection without boundaries, so that all nodes in the industrial chain token, and free, barrier-free consumption circulation and assets to cash.

As long as the original heart does not change, always unremitting, through our joint efforts, and constantly strengthen HVCC transaction circulation and application circulation, its value is bound to be immeasurable; At the same time, we will continue to carry forward and contribute to the development of human culture. The long history of human culture will surely be even longer and the modern civilization of mankind will be even more splendid.