



# IPC WhitePaper

Intellectual Property Chain Whitepaper

Version 1.0

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# 1 The origin of Intellectual Property Chain

## 1.1 Background

### 1.1.1 Blockchain technological revolution

At present we are in a silent revolution from internet of information to internet of value, i.e. blockchain technological revolution.

The existing internet has solved the problem of information transmission and sharing, while blockchain is available to overcome the difficulties on the trading, transaction and transferring over internet of such value as capital, contract and digital asset. Individual and organization in any node of the internet should be able to achieve the transmission and transferring of value without needing to trust a third party through the decentralization system constructed with blockchain.

Blockchain technology is a brand-new distributed infrastructure and computing paradigm to verify and store data using block chain data structure, to generate and update data using algorithms for distributed consensus, to ensure the data transmission and access security using cryptography method, and to program and operate data using the smart contract consisting of automatic script code.

A blockchain is a super complicated distributed computing technology that is used to maintain a continuously growing list of records in thousands and millions of individual computers which work collaboratively and none of any single entity could control them. With the development of blockchain technology, we'll implement a trust and verification automation system to store or transmit information and asset, all the things in blockchain are de-trusted and capitalized whose value are recognized by the people around the world.

### 1.1.2 Current situation of Intellectual property

With the 21<sup>st</sup> century coming, the world economy is transforming to knowledge based economy and human societies have entered the ages of rapidly expanding knowledge based economy.

Knowledge based economy theory originated in early 80's of 20<sup>th</sup> century. In 1983, American economist Paul Romer at the University of Chicago started the "Endogenous growth theory", it holds that investment in human capital, innovation, and knowledge are significant contributors to economic growth. The theory also focuses on positive externalities and spillover effects of a knowledge-based economy which will lead to economic development. The rise of software knowledge industry represented by Microsoft of Bill Gates is the principal mark for the establishment of knowledge based economy as a new economic formation. In modern social

production, knowledge has becoming a most important part of production factors, and the knowledge based economy would be the dominated economic formation in the 21<sup>st</sup> century.

In the internet era, the content and target of intellectual property service have been changed. Internet disorganized the traditional industry model, while it brings more challenge on the protection of intellectual property which makes the intellectual property and its service more complicated. Especially on today, when the internet is booming and the cost for information transmission is almost zero, the innovations could be “copied” quite easily. The enterprises might not get their deserved return on innovation investment and consequently the innovation of enterprise would be discouraged severely, without the restriction of rigid intellectual property protection systems. All kinds of piracy, disregard of intellectual property, and infringement of original rights and interests, are the sharp pain points of knowledge based economic industry.

## 1.2 Why design Intellectual Property Chain

The present situation of intellectual property and new technological revolution coming from blockchain technology has brought new opportunity for the intellectual property protection and value transmission in the knowledge based economic age.

“Intellectual property” refers to the value of all intellect achievements, the capitalization of intellect achievement ownership.

Intellectual property generally includes all non-physical assets which could be transmitted over internet such as film and video, music, image, photograph, VR, video clips, snap shot, electronic literature, travel notes, what one sees and hears, E-book, software, patent, originality, bonus points, coupon, game equipments and so on.

Intellectual Property Chain is a decentralized distributional blockchain system established for the intellectual property application such as confirmation of rights, reward, transaction, crowd-funding and crowd-sourcing.

Nowadays in an era of plenty, the consuming of physical assets becomes saturated gradually with less and less frequency, on the contrary, the consuming of virtual assets and spiritual assets is increasing. Endless innovation and iteration have contributed to the consuming of intellectual property as future trends, therefore the GDT instead of GDP would be used to measure the productivity in the future.

The existing intellectual property has been centralized for issuance and transferring, almost monopolized by some major media and issuers or large sized internet media, the huge numbers of piracy issues resulted in slender repayment for originators and owners, which led to more time and cost saving reproduction and pirated copies instead of invention and innovation.

Digital currency in the basis of blockchain technology actually is an extreme example of digital asset in some way, as it can't be replicated, so it can only be owned by one person in a specific time, and it's static and can't be easily destroyed. If the

technology in the field of digital currency could be used to protect intellectual property from theft and plagiarism, the ownership might be “protected”with its embedding. If we want an digital artwork to be protected from copying, the digital currency technology could be used as the container for intellectual property protection traditionally. For example, a digital picture can have the digital signature hidden in the little endian binary to protect the picture copyright by creating distinctive fingerprint with blockchain technology, without being sensed by the user. Those binary digits could be used to register the information of the picture owner and transfer information, to prove whether someone else is diverting, pirating and so on.

We can use blockchain technology to construct decentralized intellectual property transaction platform, decentralized commercial organizations can accomplish the direct connection genuinely between creator and consumer, achieve the peer-to-peer transaction of intellectual property over internet, functioned with fair and transparent sharing, appraisal and reward. On the other hand, we would abandon the issuance and promotion mode through mass advertising marketing while taking the consumer sharing and appraisal and promotion mode, the sure good piece could be of greatest recognition and reward, so that the distributors are consuming good things and benefiting from sharing and appraisal moreover, this perhaps is the future intellectual property sharing and consuming platform which is fair, open and impartial.

Intellectual property service consists of three links vertically: confirmation of rights, use of rights and protection of rights. The confirmation of rights takes long time with poor timeliness, the use of rights has difficulties on value realization and mismatch of supply and demand, the protection of right has challenge on weak effectiveness, burden of proof and traceability. The common method used such as “copyright registration” requires high cost and time consuming, while the cultural productions in the internet era features high output and quick spread. To solve the above mentioned problems pertaining to the three links, the blockchain technology has its natural advantages. Firstly, blockchains are inherently resistant to modification of the data, once recorded, the data cannot be altered retroactively in a permanent way, so as to provide perfect original records for the copyright protection of intellectual property. Secondly, blockchain technology could improve greatly the operation efficiency of intellectual property service without the use of a trusted third authority or central server, to solve the problem of tedious industrial chain from the three links of confirmation of rights, use of rights and protection of rights. With the application of blockchain technology, the whole changing processes could be recorded completely from an idea to the final works, ensuring the transferring process of digital content being credible and transparent with original time stamp proof.

Intellectual property chain is aiming to make a trillion industrial market size application mode with complete coverage of culture creativity industry, the intellectual product producers could benefit indeed from the goods and services it provided, meanwhile, it also brings the measurable returns for the corporation or project which is

engaged in the value transferring in the field of intellectual property. Considering the characteristic of asset transferring in the area of intellectual property transaction, the operation team adopts the issuance mode for partly open to booking (crowd-funding), and partly generation in the long run, i.e. it's being taken into account for the transferring capacity for both start-up in early stage and progressive expansion for future long-term development. This method helps to rapidly shape the market environment initially for culture asset transmission and simultaneously, set firm basis for subsequent market development gradually over a long period of time.

## 2 Design concept for Intellectual property chain

### 2.1 Decentralization

In order to suit the needs of intellectual property on the tamper-resistant, persistence and traceability, IPC fully utilizes the decentralized characteristic of blockchain technology to design a public blockchain in which the real-time information of rights confirmation and transaction for intellectual property could be recorded, the users adopt secret key to confirm the ownership or use right, or deal with the transaction or authorization of intellectual property with encryption key signature.

The participative nodes around the world maintain the block together, they are distributed while collaboratively work under a consensus protocol as an organic whole, and won't tamper or transfer the intellectual property driven by any benefit factors unilaterally. The intellectual property right information is saved in distributed consensus nodes in different areas, damage to individual node because of natural disasters, network attack or human factors wouldn't lead to the data damaged or lost.

### 2.2 IP commercialization

#### 2.2.1 Proof of originality for IP

The information on the originator of cultural products, content, time of creation and initial transmission could be transformed as acronyms digital information through conversion of encryption algorithm and abstract, recorded in blockchain, as proof of originality for the cultural products. Similar to the registration of copyright, these acronyms digits could effectively prove the originality and uniqueness of cultural products.

### 2.2.2 Value transmission for IP

The product could mark its value for sale using such digital currency as intellectual property coin (the token of IPC). The buyer could obtain the cultural product in the way of intellectual property coin, the digital property right proof would be generated simultaneously and proved to be legal and effective to obtain such digital asset through the copy uniqueness verification on blockchain (by the seller of cultural product), subsequently it can be the valid evidence for value transmission of the cultural product.

### 2.2.3 Property right transfer proof for IP

In the field of intellectual property transferring application of cultural product which is not designed for mass market, cultural product could attach the information of its characteristic, originator and property right owner on the blockchain, and then finish the transferring of property right. Such transmission is unique and undeniable without time disruption as the sufficient evidence for intellectual property transferring.

### 2.2.4 Anti-counterfeiting validation for IP

Intellectual property chain is tamper-resistant, transparent and searchable. It won't be changed once the characteristic mark, originator mark and time of creation mark of intellectual products enter into blockchain, while the characteristic mark couldn't be counterfeited after technical treatment. If the characteristic mark does not coincide with or match the evidence provided by so called fake originator, it's apparent to tell the true or false.

### 2.2.5 Investment for IP

When the product is the subject of investment, the blockchain technology could be used to record the identified correlation between the cultural product and investment distribution. The investor could request for the reasonable allocation of benefit gained from the transaction of cultural product with the property right investment proof recorded on blockchain.

### 2.2.6 The proof of integrity for IP

Once the product is determined finally, the digital characteristic could be recorded on blockchain, and the proof of integrity is available. In case the supplier of cultural product doesn't transfer all intellectual property to asset buyer, the buyer could appeal for his/her property integrity right using the digital characteristic recorded on blockchain.



## 2.3 Usability

IPC provides simple and convenient interface and service to all sorts of applications and IPC customer terminal, as a basic intellectual property service capability platform.

It's user friendly as following described: dedicated chain for the need of intellectual property service; creative transaction model and smart contract capability supporting intellectual property transaction; centralization-likeness service capability for fast confirmation of transaction and optimized user experience; flexible commercial application development in the basis of this chain.

## 2.4 Reliability

Blockchain technology has been applied and tested with high value in large scale during a long period of time on the digital currency applications such as BitCoin and Ethereum, the technology system and cryptography algorithm have been verified to be rational and reliable.

The design of IPC employs the mature cryptography algorithm and general network protocol, the innovation on consensus mechanism focuses on the improvement of usability and optimization of transaction time on the premise of reliability and security.

Transaction model is built on the basis of mature UTXO transaction model, we give preference to the assurance of system reliability by adopting the approach of sufficiency as per the balance of Turing completeness and reliability considering the limited extension transaction model for intellectual property application.

## 2.5 Security

IPC is developed to take the system security into account by making a safety strategy from two aspects: technological and operational mechanism, to prevent from various attack and risk, say, those coming from Double spending or Forks mechanism on blockchain on one hand, or those potential attack and technical failure on technology development on the other hand.

The application of creative and safe DPOC consensus mechanism introduces the self-inspection operation system to avoid the breakdown or error of accounting node, fully assure the operation of blocks steadily and safely.

Standardized technology development procedure and project management is in place to fully guarantee the system safety with the stress testing and risk assessment on various network environment and attack methods, applying strict testing and safety audit of modularization, integration, sub-block and sub-layer. Moreover, the virtuous business ecosystem safeguards the long-term self-conscious system maintenance and upgrade, as the continuous stable operation of BitCoin network.

### 3 Design plan and distinguishing feature of IPC

#### 3.1 Public blockchain infrastructure

IPC follows a mature technology infrastructure with six layers, from bottom to top, as described in the below table: Data, Network, Consensus, Incentive, Contract and Application.

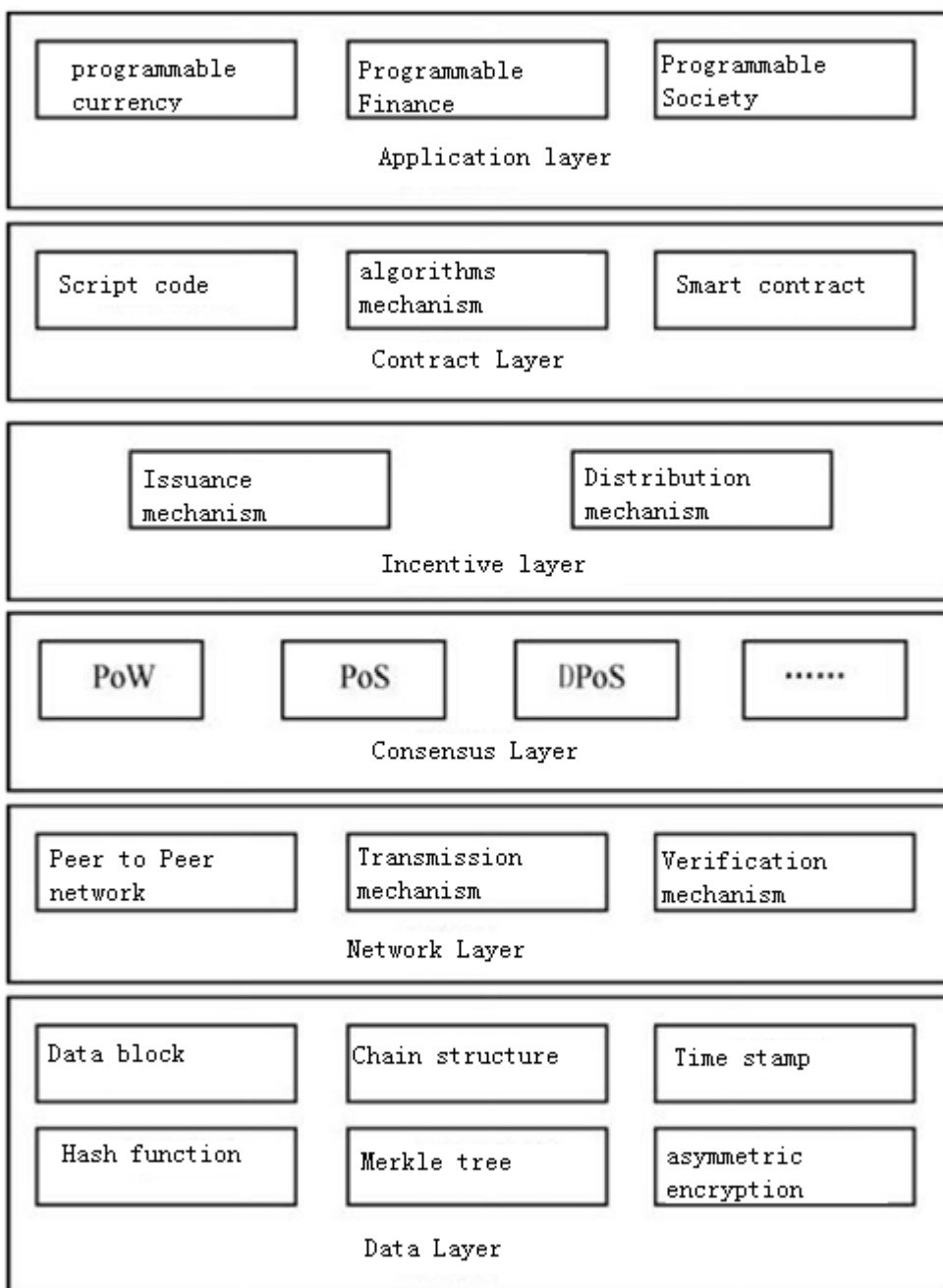


Table 1 Blockchain Infrastructure Model

### 3.2 Innovative consensus mechanism: DPOC

DPOC stands for Delegated Proof Of Contribution. DPOC eliminates such defects as low efficiency of POW (proof of work), risk on invalidated balance of interests of POS (proof of stake) and cost of non-compliance of DPOS (Delegated Proof of Stake). DPOC is a verifiable system on intellectual property chain in the basis of the accumulative contribution from user node, being accessed according to the user contribution rate, to coordinate the system node and confirm the data broadcast authority utilizing the uniqueness and accuracy of existing blockchain ledger.

DPOC set up the admittance criteria as system specified contribution rate. The system contribution rate is composed of two parts: user node coin-hold contribution and user node work contribution, of which the coin-hold contribution is related to the amount of coin and the holding period, the work contribution is interrelated with the effective involvement of system work.

DPOC starts consensus for each round to elect work node, finish block, generate ledger through contribution consensus voting, and give incentive, or punish the node for breaking the rule.

### 3.3 Innovative transaction model

General blockchain project offers simple transaction models such as transfer of accounts and double signature, while IPC creatively embeds multiple transaction models in the bottom of system to realize and complete a variety of complicated commercial activities which makes it different from other blockchain projects, considering the characteristics of intellectual property, transfer, transaction and consumption. The activities include but not limited to: contribution accrued transaction model, video property right transaction model, audio property right transaction model, patent property right transaction model, property right deposit model, property right auction and bid model.

### 3.4 Peer to Peer (P2P)Network

The nodes within IPC adopt a series of extending protocols to broadcast in the whole network, including the node message mechanism and node message alive mechanism. Such two mechanisms are used to confirm the full network nodes are becoming effective. The new customer terminal in IPC network should locate existing active main nodes in the full network before using their services. Once they join the Mesh network, their nodes would receive the instruction of demanding the master node list. The purpose to set up caching is to have the customer terminal

record the master node and its current state, for this reason, when the customer terminals restart, they need only load the file and it's not necessary to request for the complete list of mast node all over again.

The network would remove the inactive nodes with time, so that they can't be used by customer terminal or for payment. The node could also keep polling, but it would be marked as inactive and no long serve the network if the terminal of node remains closed.

IPC network protocol ensures the network operation safely on one hand, and the network node equality and rapidity on the other hand.

Master node is available to provide any service to network. With the "Proof of contribution quantity" mechanism, these main nodes could be required to stay on line and respond to the business on network.

### **3.5 Innovative business model**

The combination of intellectual property and blockchain technology by IPC puts the intellectual property into the chain, supporting the establishment of decentralized intellectual property commercial eco system in an innovative way. Intellectual property is easy to transmit while hard to protect, is a commodity while the value can't be transferred, IPC allows the intellectual property to be a commodity with its commercial value released and achieve the commercial application effectively on the aspects of entering into chain, confirmation of rights, transaction and authorization. A virtuous commercial eco system is formed to encourage the originator and wisdom contributor, with the consumption and circulation in compliance with the commercial and market rules.

### **3.6 Support DAPP flexibly**

IPC comprises a specially customized kernel model on customer terminal which enables the user to operate all sorts of decentralized applications (DAPP). Such kernel model could be used quite easily, consequently a large number of users come to use the DAPP and relevant smart transaction models. The kernel model has been considered a breakthrough in the view of user friendliness, its function is equivalent to the browser for internet, or iTunes for the downloading of digital contents. The kernel model has components related to IPC and particular safety layer, encryption key management, decentralized account address management (i.e. the account is owned and controlled by the user, instead of any third party), which all makes the customized kernel an indispensable tool for the user to operate or manage the decentralized applications of IPC.

## 4 IPC application

### 4.1 Commercial application

#### 4.1.1 IP platform

Within the IPC network, the need for property right transaction industry development could be fully supported through introduction of different consensus mechanisms and supervision requirement. The decentralized intellectual property protection platform is established via IPC network, everyone could set up his/her own intellectual property content library and use the decentralized platform for confirmation of rights, after that, sell, consume, rent or in other way to finish the authorization or transfer of the property right over the platform, without approval from any centralized node. Another characteristic of the platform is the rigid supervision on intellectual property coin with smart contract to eliminate the fraud and dishonest activities.

In the IPC system, the Delegated Proof Of Contribution (DPOC) and RAFT protocol integrated consensus mechanism is available to suit the needs of all kinds of property right transaction in their characteristics on the requirement of blockchain speed and capacity within the reliable network. When the blockchain based multiple signature contract technology is introduced, the sophisticated property right commercial logic could be realized in the platform.

#### 4.1.2 Decentralization application

IPC system seeks to support decentralized application technologically on all aspects, especially realize the different DAPP route products with the access of mobile terminal strategy so that common internet user could actually sense the value brought by blockchain technology.

Different DAPP application with the target to different industry could bring blockchain technology to more users. The decentralized property right sociality, decentralized property right storage and decentralized property right transaction would change the present business model of APP market with the introduction of incentive mechanism and the advanced application of sharing economy idea.

The blockchain technology provides the infrastructure for decentralization, the application of sound API design and Docker technology over IPC could facilitate the preliminary work of developers for them to approach quickly.

#### 4.1.3 Mobile terminal service

Establishing the mobile terminal confronting strategy is the key point to

promote the implementation of blockchain technology. In the eco network of IPC, we not only fully support and push the universal mobile application development strategy, but also provide mobile terminal service together with third parties, which include but not limited to: DAPP application on mobile terminal, wallet on mobile terminal, contract application on mobile terminal and so on. Moreover, we would encourage more third party developers to join our team and work together for the promotion of blockchain application in real business scenario and development of more popular mobile terminal service based on blockchains for users.

## 4.2 Typical application scenario

IPC could be used on the collection, confirmation of right, encryption, attestation, anti-piracy, transmission, distribution, evaluation, ranking, issuance, transaction, reward, crowd-funding, crowd-sourcing and so on for intellectual property.

Following is the typical application scenario :

### 4.2.1 Confirmation of rights

Confirmation of rights refers to the confirmation of the ownership, affiliation of use right and other rights of an asset in accordance with the regulation of law and policy, following the specified procedure of asset declaration, ownership investigation, review and approval, register and certificate issuance.

### 4.2.2 Transaction

Transaction refers to the behavior of consuming of intellectual property, ownership transferring and renting over IPC network, consumption relates to consumption subject and rights and benefit subject.

### 4.2.3 Reward

Reward is a rising non-compulsory pricing model over internet. Nowadays in reality, reward payment channel is available in such consumption area as restaurant, bar, KTV and scenic spot.

### 4.2.4 Crowd-funding

Crowdfunding is generally based on three types of actors: the project initiator who proposes the idea and/or project to be funded, individuals or groups who support the idea, and a moderating organization (the "platform") that brings the parties together to launch the idea. It is the practice of funding a project or venture by raising monetary contributions from a large number of people, with the

characteristics of low barriers, diversity, dependency on power of public and creativity conscious.

#### 4.2.5 Crowd-sourcing

crowdsourcing represents the act of a company or institution taking a function once performed by employees and outsourcing it to an undefined (and generally large) network of people in the form of an open call.

### 4.3 Commercial application case

#### 4.3.1 Invention patent application

With the development of the social culture and economy, the value of exclusive creativity labor from wisdom of human being is more and more precious. As a proof of that labor, the infringement on patent is prevailing and frequent. For example in Beijing, there were 8035 cases of invention patent infringement in 2016, while the protection of invention patent is facing the challenge of being hard to obtain evidence, long cycle, high cost, and low compensation.

The function of IPC on safety, transparency, tamper-resistant and non-repudiation just matches the strong social request. The key reason for the difficulties to protect the invention patent is the poor efficiency of third party, while IPC could automatically record the intact invention patent information without involvement of any third party, all the information would be saved in the form of transparency and completeness in the interconnected sharing global network system, nobody can attack and manipulate in any way, the efficiency of protection is improved overwhelmingly.

#### 4.3.2 Trademark application

Related statistics show that the number of trademark property right infringement case in 2016 for Chinese mainland enterprises was over 100000 in the intellectual property court, mainly represented as maliciously squatting and illegal misuse of trademark. Such as the “flying-pigeon” bicycle trademark was squatted by Indonesia, “Lenovo” replaced “Legend” as that trademark was registered in many countries, and so on. These cases came out because the enterprises didn’t have long term planning and sufficient knowledge of the importance of intellectual property, being afraid that the fee for trademark protection and intellectual property maintenance would be too high to increase the burden of the businesses.

IPC offers a low cost, anti-tampered, interconnected, global open database with the exclusive blockchain technology, by taking any registered intellectual property

or trademark information as a “block” to embed into “blockchain”, it’s not necessary to register the trademark in other countries or organizations once the “block” is validated permanently. In case a dispute on trademark and intellectual property occurs, IPC could provide objective, open, impartial, exclusive and absolute genuine evidence as proof.

#### 4.3.3 Copyright application

In 1709, Anna Queen Law was published by Britain as the first copyright law in the world, however, there has no sound system on copyright protection to protect the benefit of interested parties for several hundred years, due to the complicated copyright traceability process. It’s been difficult for the copyright protection especially on such issues as confirmation of rights, poor openness and severe piracy. IPC could be the certain choice to establish the copyright protection mechanism.

The advantage of IPC is irreversible, tamper-resistant, trustiness, decentralization, open and transparent. The most efficient way to trace to the source is to follow the whole process for the record from issuance, registration to transaction of copyright based on the characteristics of IPC. IPC provides the exclusive configuration files for users to manage their certificates. Once the information is uploaded to IPC, the status of user’s work could be followed. In case the misuse without authorization is detected, the user would be informed immediately and the evidence could be kept permanently in the chain as a proof for user to protect his/her own legal rights.

#### 4.3.4 Music industry application

Because the intellectual property system was damaged, so many content creators didn’t receive a fair remuneration, especially in the internet era.

In the music industry, musicians are living on the residual at the bottom of the food chain. Twenty five years ago, a composer could receive remuneration of 45000 US dollars for a popular song if one million singles were sold. Today, even though the song written by a composer was played a million times, he/she would only receive 36 US dollars (not 45000 US dollars any more) for a not so bad pizza.

Imogen Heap, is an English singer, songwriter, composer , received two Grammy Awards, now released her music on a blockchain eco system with the smart contract to protect her intellectual property. Do you want to listen to music? It can be free, chargeable, or attached with advertisement, or the reward would be saved into the digital account. Music is commercialized in the platform, and the rights of author are protected. The payment system for music consumption is similar to a bank account, all the payment would be transferred directly to the



musician, so that the creator instead of the powerful agency could control the industry.

#### 4.3.5 Video industry application

Cinema usually releases around 100 movies annually due to the restriction of space and yearly schedule, the industry scale is limited, a good movie might come to an untimely end without being scheduled which leads to the failure in investment, while the network movie and microfilm could get the long tail benefit greatly except from the distributors and theatre chain, by applying the blockchain technology in combination with data encryption technology, in favor of the increasing scale and employment in the industry. ,

Short videos in the age of We Media are popular, but the uploader can only gain slender earnings from reward mode. In the future, combined with the data encryption technology and blockchain technology, the return could be much higher. Take an example of the video about fighting with a tiger, if it would be placed on the blockchain, the earnings might be millions and tens of millions.

#### 4.3.6 Software and design industry application

Design works such as software and UI, PPT, 3D model, ID design, PCB design and architecture design are the severely afflicted areas for piracy.

Utilizing IPC, the works could be registered on the chain with HASH for confirmation of rights, besides, the digital works united with Asymmetrical Encryption Algorithm to combine the encryption key with blockchain transaction authorization, the user could only use it with decryption after purchasing, which restrains the prevalence of piracy to a certain extent and protects the benefit of designers through authorization and transaction sales.

In addition, the high-value design works could be secured for safety using the multiple signature or smart contract of blockchain technology for many persons to decrypt or use one work.

#### 4.3.7 Traditional painting and calligraphy, artwork industry application

The core value of traditional painting and calligraphy, porcelain and various folk artworks is all the same the expression of creativity. These artworks are not digital products, however, the copyrights are precious and valuable. Similar to appearance patent, the best way to protect the intellectual property of these artworks is to register the copyright.

These non-digital works could be recorded in respect of the shape and details of design in the way of digital photograph made with camera or scanner, and

register on IPC the first time, which is equivalent to applying for register of appearance patent. In case other reproduction or plagiaristic copies are detected, blockchain could be compared for confirmation of rights to prove the identity of origin copyright.

#### 4.3.8 Notarization industry application

Notarization is essentially the proof of evidence by a trusted third party, widely applied in businesses and market.

The intellectual property chain (IPC) could be used easily to satisfy such demands of notarization as for the contract signed between companies, the contract could be notarized on IPC when it's signed in case of denial. The feature of permanence and tamper resistance of blockchain makes it a feasible third party taking the role of a notary office. Another sample is testament preservation, it can be protected from changes by offspring as a notarized will no matter how many years passed since the testament is put on the chain or the person pass away by accident. Voice, video, photograph or other information in some specific occasions need to be maintained as it is upon agreement by multipartite for future notarized requirement, can also use IPC to fulfill the purpose of notarization.

#### 4.3.9 Internet writing and We Media application

The new We Media and knowledge sharing platform such as internet public account, blog and Jianshu, gradually evolved to offer more and more contents with pay per action (view or answer question) or reward pricing model for user to follow the valuable content and motivate the creator's enthusiasm. Meanwhile, each year network literature with value of over tens of billions is infringed by pirated copies.

The intellectual property chain could be used to realize the application of We Media in regard to the copyright confirmation and protection on any of original piece, simultaneously, reward or paying using decentralized intellectual property token easily, the fee would be directly paid to creator without the intermediate of third party payment center or bank.

## 5 IPC risk management

### 5.1 Asset and token management principles

Digital currency ICO( Initial Coin Offer )is a quite good crowd-funding model, it's in a position to solve the capital problem for a blockchain technology initiator company and promote the innovation and development of blockchain technology. However, as it's a new model and a newborn thing in the absence of supervision

from market, it happened that there was an individual untruthful or fraud project, which brought attention to all countries for measures on supervision and audit of ICO. Thus we designed a set of self-supervision and inspection system to avoid the irregular and uncontrolled cases for the long term positive development of IPC.

The underlying logic of international popular Regulatory sandbox model is consumer benefit focus and supporting genuine financial innovation, it creates a set of new supervision tools and supervision system in which businesses can test innovations with a controllable risk under a more flexible supervision scheme. Sandbox provided a true or virtual testing environment in which the consumer wouldn't lose their protected rights and benefit because of the sandbox testing. Therefore, we proposed to establish our own "transparent supervision sandbox".

## **5.2 Organize IPC asset management committee**

The "IPC asset management committee" is jointly organized by private placement investor, crowd-funding private board, project implementation committee, lawyer and accountant, to overall manage the crowd-funding asset and token asset and use the asset transparently together through the multiple secret key signature, regularly report to relevant authority and disclose to the public. Before the project implementation, virtual testing and partial pilot testing should be done and successfully passed. Token would be set for a specified percentage and distributed to community and market by stages.

# **6 IPC token**

To meet the needs of decentralized operation of IPC and its commercial application better, IPC issues corresponding token. The IPC token would be named as IP coin with total amount of 96 million, it is a decentralized digital currency based on intellectual property chain (IPC).

## **6.1 Use of IP coin**

### **6.1.1 Maintain the virtuous operation of IPC**

Blockchain operates decentralized which requires the accounting work for decentralized organization, a built-in feature the blockchain comes with is the incentive settlement to encourage the bookkeeping, so that the accounting node is driven to be involved and the normal operation of blockchain is maintained.

The major source of bookkeeping reward of blockchain is additional interest on follow-on offering and transaction service fee. Any application or user needs to pay a fixed transaction service fee for the labor remuneration of the blockchain

accounting node when receiving the IPC service, which also needs to be realized in the format of IPC token.

### 6.1.2 Commercial application transaction

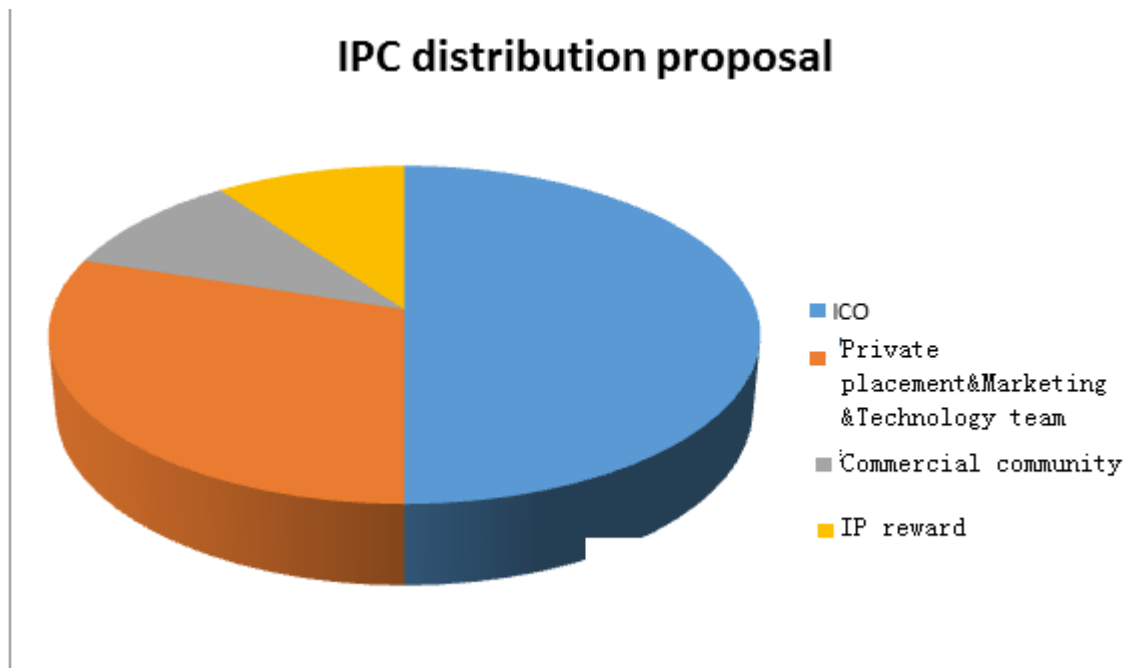
The commercial application of IP coin would mainly focus on the business transaction payment in IPC, such as property right transaction fee, reward, advertisement fee, distribution agency fee, platform royalty, commission for crowd-funding and crowd-sourcing, transaction service fee and so on.

## 6.2 IP coin issuance

Amount of IP Coin: 96 million. Annual increase of 1%.

IP coin would be generated 90% when IPC officially issues, managed by “IP Coin Management Committee” , the rest 10% would be generated by system as reward when the users put IP products on IPC.

## 6.3 Distribution proposal



■ Public offering ( 50% )

To commit the sufficient fluidity for early application initiation, 50% of total IPC asset would be open to market in the way of crowd-funding, considering the equality and credibility of participants.

- Initiator team、 Development team、 Private placement investor、 Marketing promotion ( 30% )

The 30% would be divided into three parts evenly, the initiator team& development team, marketing promotion, and private placement investor holds 10% each. The initiator team and development team contribute their 10% as development fund for preceding technology development and subsequent technological advance to ensure the continuous improvement after IPC issued.

- Commercial community collaboration ( 10% )

10% award would be reserved for the purpose of collaboration between IPC and commercial organization and community, to concretely implement the IPC.

- IP reward ( 10% ):

10% intellectual property reward would be reserved to encourage the user to put intellectual property into the chain.

#### **6.4 Coin-hold team release program**

The coin held by initiator team and development team would be partly locked on issuance, it would be released 25% for the first time, another 25% in a year, 25% in two years, and the rest 25% would be released in three years.