



NPER

Decentralized Intellectual Property Network

"NPER" is a project to overcome the monopolistic industrial structure and stereotypes in the Intellectual Property industry. We will protect the creator's proper right and present a new paradigm to everyone which makes them possible to own and we distribute the royalties and its added-value that the only minority used to monopolize.

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The best way to predict the future, is to create it.

- John Cage -

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Terms

- **Intellectual Property = IP** = IP means the copyright of industrial property rights such as invention, trademark, etc. made by human knowledge, music, literature, art works
- **Copyright** = This concept belongs to the subordinate of intellectual property rights, which means the rights of the creator regarding music, literature, and art works.

1. Abstract

Digitalized information processing technology has developed repeatedly over times. The rapid development of IT technology has transformed our lifestyle more rapidly, and many of the existing businesses are facing a problem of survival consequently. The financial sector threatened by Fin-Tech is a representative example. The financial sector has already built a convenient computational mechanism that did not make any big progress on great changes over the past few years. Such mechanism which was established in the 20th century seems almost the same as the mechanism in the 21st century. As a result, such a slow transfer system, its excessive fees could be typical problems that have been left for many years. Fin-tech companies have emerged to solve this problem, and are making existing financial industry be placed at the crossroads of survival. Despite the tremendous developing pace of technology, there exists some industries that do not follow the pace of technology for several reasons.

In addition to the financial industry, the intellectual property (IP) industry is another example. Especially in the IP industry, the copyright market is growing every year, but the creators are not getting the right properly. While IP industry can create dozens of values, there are no certain business model yet in the field due to the monopolistic industrial structure and its stereotypes.

The NPER project approaches the existing IP industry, reclaims the legitimate rights of creators, and presents a new 'Intellectual Property Investment Business Model' in which everyone can invest in the IP market.

1-1. What is NPER? : Global IP Peer to Peer Trade & Investment Platform

NPER is a project that allows creators to take legitimate rights by defeating the unusual IP industry structure that takes away the legitimate rights of creators. It will build a blockchain main network to innovate the IP industry, and challenge on various possibilities.

This project also presents a new business model for investing in the enormous IP industry. We will create a "digital asset" called "NPER COIN" that can be invested by everyone after purchasing the 'rights' of various categories of intellectual property rights.

Function Category	Business Model	Professional Developers	Cross Chain	Offline Service
NPER Projects	○	○	○	○
	Provides new investment business model on Copyright market rather than using all the funds on platform developing	5 professional developers from SAMSUNG Electronics development & research team, CTO from NEXTEL with 20 years of experience on development	Supports Cross Chain function that enables interchanges with other chains in Main_net.	Even after the end of the Peer-to-Peer intellectual property ownership trading, NPER provides guides on administrative procedures for the transfers on each countries.
Other Copyright / Blockchain projects	×	△	×	×
	Excessive fundraising only for platform development / Insecure Business model	Most of the projects have only few professional developers	Most of the projects use DAPP on Ethereum only without constructing Main_net for better functionality	Unsecured service offering after the trading transaction is over

< Figure 1 : Differences between existing projects and NPER projects >

The NPER project differs from common projects that attempt to incorporate blockchain technology into the existing copyright industry. Existing projects are trying to incorporate block chains into copyrights for the rights of creators. NPER, however, not only solves financial financing problems for creators by purchasing the overall rights to IP, but also decentralizes the monopolistic structure of IP market by digitalizing assets to make it possible to invest and own for everyone.

In addition, as we build a platform for peer-to-peer trading of license / ownership rights on IP established by creators and users, we protect the legitimate rights of creators by simplifying the distribution structure. It is a project that meets the needs of both creators and investors in general.

2. IP Market Problem

2.1. Irrational Distribution Structure

The Berne Convention¹ has created a social consensus around the world to protect copyright which is included in the intellectual property. Many laws and institutions were created, and the creators were protected at some point. However, despite of Berne Conventions, no practical structure has been created for creators to legitimately receive or claim their just costs. The music copyright industry, where the rights of the creators are not protected, shows the problems of the copyright market well.

There is a British musician named Jon Hopkins. He composed the music "Light Through The Veins," which features the introduction of the song "Life in technicolor" by the band Coldplay. There is a very famous tweet message left by him about this song. "It has been played 90,000 times, and I got 8 pounds." This tweet message clearly exemplifies the reality of the copyright industry. It's a well-known artist who has been involved in Coldplay's album work, Earned 10,000 Korean won.

¹ International Convention on Copyright Protection in Berne, Switzerland, 1886

Music Streaming Revenue Distribution Structure	
Streaming Company	40%
Records Company	44%
Song Composer·Arranger	10%
Singer·Performer	6%

Data :Ministry of Culture, Sports and Tourism



< Figure 2 : Domestic music streaming revenue distribution structure >

It is not just about the music copyright industry. The publishing industry is in a similar situation. Direct royalties returning to the artist when the book is sold are also unusual. If you sell a book, the profits that go back to the writer will vary depending on the contract, but the Korean industry average is less than 10%. Almost all the categories of copyright industries in Korea are facing the same problem, as well as the the copyright markets all around the world. You can guess why copyright royalties have become hotter issue worldwide. If we only think of this unreasonable structure as a barrier to the copyright industry, nothing will change. Someone should suggest alternatives and find solutions. NPER builds a global peer-to-peer intellectual property trading platform that has not previously existed, and uses blockchains to protect the legitimate rights of creators. There are some websites that handles B2C works such as fonts, images, and videos, but there are some websites that relay those things. Also there exists a transit fee and unreasonable cash flow(If it is a big size company, money can be tied up for 1~2 months, and even financial investment can be made with those money) will be carried out at the corresponding amount. This “brutality” from the relayers seems severe. NPER builds a secure and fast IP Peer to Peer trading platform with the blockchain and the smart contract.

2.2. Absence of Investment Business model on IP Market

While it can be a lucrative place to invest, due to a stereotype that it is a monopolistic industry structure where minority takes the most of the value, and that the intellectual property is not a substance for investment but merely a right, there are not many investment business models. So why do we need a new investment business model in this market?

	KOREA	CANADA	USA	COLOMBIA	BULGARIA	UKRAINE	SINGAPORE
	0.1B US\$		0.1B US\$	0.1B US\$	0.1B US\$	0.1B US\$	0.1B US\$
Core Copyright	539.9841	—	12,314	57.48	10.67	16,916	105.7722
GDP	15,297	—	193,621	3,074	559	1,040	3,057
Core Copyright / GDP	3.53%	3.33%	6.36%	1.87%	1.91%	1.54%	3.46%
Total Copyright	1,803.5136	—	21,337	102.67	19.118	29.64	189.2288
GDP	15,297	—	193,621	3,074	559	1,040	3,057
Total Copyright / GDP	11.79%	4.50%	11.02%	3.34%	3.42%	2.85%	6.19%

Data : Reports by countries from <WIPO Creative Industry: Economic Contribution & Mapping>

< Figure 3 : Contribution of copyright industry to GDP >²

Sustainable High value added industry (High-valued)

IP continuously creates a new category as the technology develops and the new industry emerges. According to WIPO³, the copyright industry accounts for an average of 5.69% of GDP based on the top 40 countries in the world. It is a very large number that can not be converted to the exact amount, and the US, which has the most developed copyright industry, is about 1,200 trillion won in size in 2017.

Market with a stable profits (Steady-Valued)

IP can be a safe asset as it is protected by law for a long period of time. Depending on its field, IP can be protected by the copyright for up to 50 years, and excellent creations could create a steady and stable royalties.

It is very unreasonable for a few to monopolize markets with a sizable scale and a relatively small risk. It should open up opportunities for investors to invest in the IP market and create fair opportunities to decentralize massive amounts its value.

Combining block-chain technology, which will lead the fourth industrial revolution, and smart contracts into IP industry can easily extend the opportunity to invest in this tremendous market. It can transform a centralized copyright industry by few into a decentralized industry in which larger number of people can divide its value and have own right through the investment and decentralization process.

² Refer to the reports by countries 'WIPO Creative Industry: Economic Contribution & Mapping'

³ World Intellectual Property Organization (www.wipo.int)

Sharing creators' value and financing

Creators have little to do with works, even though IP is their rights and assets. They only have to stand still for their works to be retailed and sold. However, some creators would like to finance their IP ownership for sale or lease, either for other productions or for any other reasons. NPER recognizes that creators' IP as an asset and purchases it and turns it into a digital asset called NPER coin, which is worth the investment. In this way, we can share the value of creators' intellectual property rights, and present a new investment business model that uses the cryptocurrency to ensure investors have a stable or high royalty income.

If you purchase or lease ownership of music copyright, video copyright, publishing copyright, S/W intellectual property, etc., you can return all of the expected royalty incomes to everyone in the future. However, trading an ownership is not commonly happening in the global market, so it is not easy to estimate the value of it. Thus, you have to evaluate the value with a few criteria, such as the average annual royalty income earned by the IP, the duration of the rights, and so on. Since it is a new market, NPER's criteria can be used as a common standard in the IP proprietary trading market. Also, if you sell an IP license or ownership through a NPER coin on the NPER global peer-to-peer trading network, the royalties revenues for NPER coin holders will be much higher.

3. Solution with Blockchain

Transparency of block chain and stability against hacking

One of the key points of the block chain technology is that it has decentralized nodes with identical book. This shows the advantages that existing centralized systems do not have.

First is transparency, which keeps transaction information for all the wallets involved in the transaction as block-chain books, so it is possible to track how much is left in a wallet at any given time. This means that it is possible to prove that the compensation based on the NPER coin holding amount and the compensation are carried out transparently.

Second is stability against hacking. NPER coin transaction details are stored continuously on the block chain network. This does not simply mean to merely accumulate the transactions details, but also manage the transaction details by combining them into a single encrypted block. Therefore, in order to change the previous transaction details, it is necessary to recreate the after that transaction. Even if such a hacked block chain book is made, the block is discarded by the consensus algorithm of the block chain. That is, there is no malicious change within the existing transactions. Based on these features, the NPER platform ensures transparent reward distribution and secure transaction management for users.

Smart contract that forces 'execution' rather than a mere contractual relationships

Smart contracts eliminate the need of trust among the trading partners. The current juridical interpretation explicitly listed the interests of the parties, but did not enforce the transaction. The block chain technology with smart contract goes one step further to enforce the contract immediately. Thus, through the system that forces the transaction, the brokers who take excessive brokerage fees between

the trading partners are eliminated.

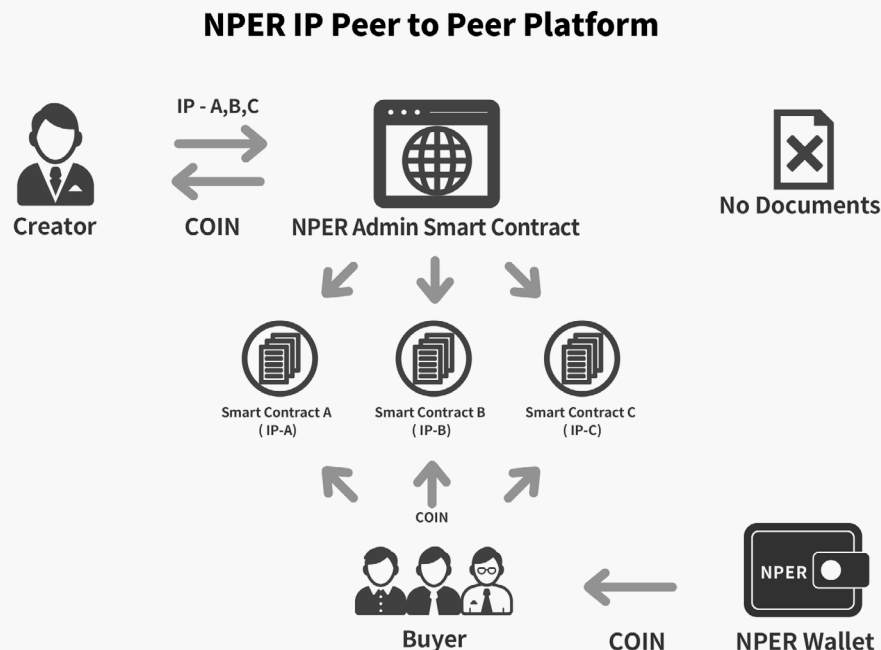
The use of block chains and smart contracts enables a variety of attempts in the IP industry. it is possible to have direct match between the creator and the user, therefore eliminating the excessive brokerage fees taken by the distributors. In addition, by recording the IP distribution structure in the chain in real time, the possibility of illegal use of IP can be greatly prevented. And there are many other attempts in the IP industry. The introduction of block-chain solutions in the IP industry can create a huge wave that changes the industry structure itself.

3.1. Developing Global Peer to Peer IP Trade platform for creators

When a seller puts the IP for an acution at the global peer-to-peer intellectual property exchange, a smart contract for the intellectual property rights is created. The intellectual property information and the seller information are stored in the smart contract, and the NPER token allows the purchaser to easily purchase the IP. In NPER, smart contract for each intellectual property right is created and stored in a distributed DB, so not only the information of buyers and sellers are directly stored, but also the token is automatically delivered to the seller. All transaction details can be checked by looking at the block chain book to see what transactions are happening, and personal information about sellers and buyers registered on the block chain can be confirmed only by trading partners, while others can't due to its anonymity.

**IP Registration → Smart contract Creation → Transaction Occurs
→ Transfers NPER coin to the creator**

In order to safely store inter-individual trading information, the IP transaction information is stored in the distributed NPER node DB. At this time, the POS type nodes participate in the block generation opportunity,



< Figure 4 : NPER Globa IP Peer to Peer Trade Platform >

Method on confirming registration on block chain and transferring token when selling IP

```
function boolean regGoods(Address _owner, long _goods){ if(isCopytight(_owner, _goods){return isSuccess}  
else{return isSuccess}}  
function boolean transfer(Address _to, Address _from, uint256 _value) (return isSuccess)
```

As the rights of creators are not recognized well within the IP industry, the impact of personal media is getting stronger. Artists are gradually experiencing more of the irrationality and illogicality from a large company as a channel of distribution and publicity than the its benefits. Based on this social consensus of the artists, and as NPER Global Intellectual Property Rights Peer-to-peer transaction structure will gradually gain more marketing power, there will be more artists eager to sell their works on NPER platform. If the function of a marketing channel works well for a certain period, platform competition to a large copyright companies is possible in long-term.

Establishomg NPER IP community inside IP trading platform

We will establish the NPER community within the IP interpersonal trading platform. This allows community members to evaluate the IP that someone wants to sell. The purchase of the IP will be decided through the voting system within the community members of the NPER Foundation. Members of the NPER community determine the percentage of purchases from the votes for the IP and decide whether to lease or belong. After a certain percentage, the NPER Foundation will review the IP collectively with the community members and proceed with the IP sale on the NPER coin. Through these decision-making structures, we are able to identify undervalued IP, and support creators who are unable to continue their activities with low financial abilities.

The IP registered within the NPER platform are also determined in this way. Anyone can upload their own IP, this can cause a big confusion to the NPER platform. Therefore, the NPER Foundation verifies and validates the creators and registers the intellectual property rights directly during the initial state of the platform. When the platform is stabilized in the near future, consensus algorithm will be developed by community members to realize a decentralized network. In order to register IP in the NPER Exchange, it is necessary to get support from the community members in advance. If it does not exceed the certain standard, the registration of the exchange will be denied and only the record will be left.

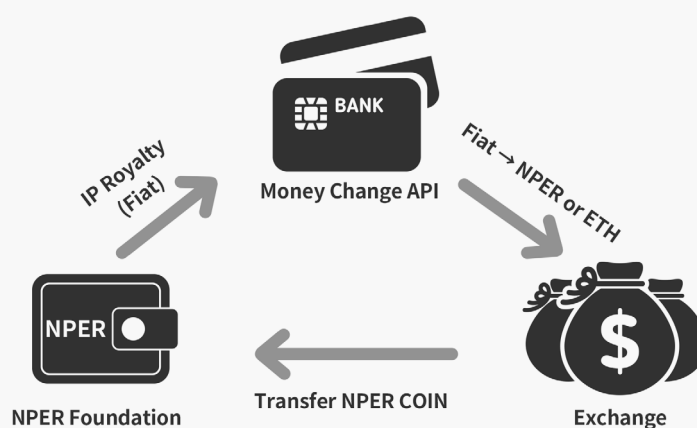


< Figure 5 : NPER IP Peer to Peer Trading Platform >

3.2. Building New Investment Business Model on IP for investors

NPER purchases IP that generates steady royalties, excluding development costs, through fundraising. This presents a new investment business model that allows everyone to take royalties on IP of a tremendous value.

The NPER coin transforms the overall IP related things (royalties, ownership, usage rights, etc.) into the NPER coin. Coin holders are rewarded with NPER coins for royalties and other value-added related to IP. All reward procedures are made up of smart contracts and recorded on the NPER blockchain. Anyone on the block chain, which can not be manipulated arbitrarily, monitors the procedure and forces to 'run' through the smart contract, thereby the transparency and the trust is surely guaranteed.

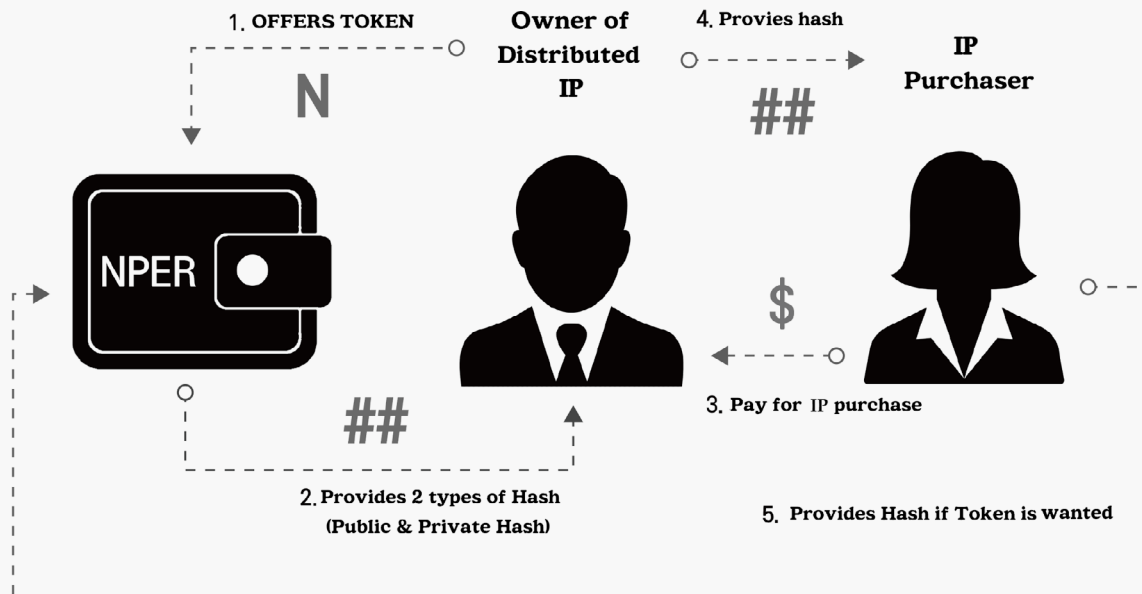


< Figure 6 : Coin exchange through Money Change API >

When revenue is generated from the IP, the revenue will be exchanged to the NPER coin from Fiat. Using SmartContract and the Money Change API, the royalties entered through Fiat is automatically exchanged into NPER coin or ETH. At that point of time, we will take a snapshot and transfer the proportional rewards equally distributed to NPER wallet to NPER coin or other types of coin. All transaction occurring throughout this process are recored on the chain and this whole process is forced by the smart contract.

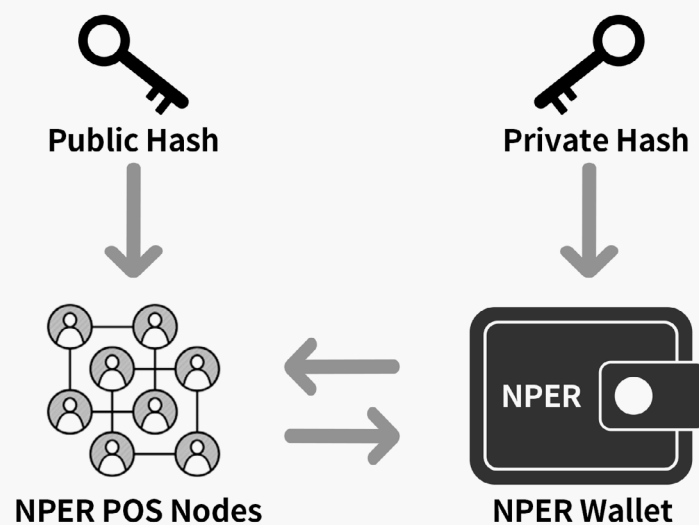
Managing distributed personal IP (NPER coins) through NPER chains

NPER coin holders receive royalties created from the the holding ratio of intellectual property as rewards. By issuing a 'IP owner certificate,' it enables to have peer-to-peer transactions of digitalized IP materials within online and offline. Here is how NPER manages the rights (NPER coins) that are distributed to various people and recognizes their rights.



< Figure 7 : NPER Distributed IP Management Mechanism >

NPER coin holders are investing and possessing the decentralized intellectual property according to their holding ratios. There is a certain procedure within the NPER chain that the coin holders to take in order to receive such rights officially. The coin holder submits the desired NPER coin rate (IP ownership rate) to the NPER chain. There are two types that can be issued: Public Key / Private Key. Public Key is registered on the NPER block chain and the Private Key is also encrypted once again. When the key registration process is completed on the block chain, an 'IP certificate' is issued. First, searching the public key on the NPER block chain can prove to everyone that you own the IP in the corresponding percentage.



< Figure 8 : Public Hash and Private Hash >

Once the key registration is completed on the NPER chain, the IP owner can trade the IP certificate issued with the two keys on / off-line. At this time, the distributed IP buyer searches the public key on the NPER block chain. Thus, it is possible to check whether the coin corresponding to the IP ratio remains valid on the NPER block chain. (If the coin is out of the NPER platform, it will be marked as Invalid.) Then you will be given a private key and a copyrighted certificate. If the person who finally owns the distributed IP wants to quickly dispose the coin through exchange, not a peer-to-peer sale, the owner can submit the Private Key to the NPER platform and get the coin back.

Method on checking data such as the status of my reward (reward), the number of tokens currently held, etc.

```
function boolean checkTokenAmount(uint256 _goodsValue, uint256 _tokenValue) (return isSame)
```

Method on regularly rewarding (rewarding) royalties to coin owners

```
function void periodicallyReward(Address[] _to, uint256 _reward){}
```

Method on check ingthe expected profit in the form of dashboard and graph through various services such as web / app

```
function void dashboard(){}
```

4. NPER Coin

4.1. Usability of Coin

NPER coin that allows creators to take legitimate rights

NPER coins are used within the global peer to peer IP exchange platform, where creators and IP owners or buyers can trade IP individually. The IP owner or buyer can pay for the IP trade with the ETH, BTC and NPER coins, and the creator receives the NPER coin for the transaction price.

By using the same payment method called NPER all over the world, it eliminates the inconvenience of adjusting the exchange rate every day by using VISA, MASTER and so on. Also, due to the NPER coin, foreign exchange fees due to foreign exchange payments are eliminated. Using the NPER coin as a payment method using the blockchain can dramatically reduce the time and expense that has been abused frequently by the brokerage company.

The "digitalied capitalization" of "IP"

The NPER coin itself is a 'digital asset' that contains the partial or the whole IP worth a value for investments. NPER coin suggests a new IP investment business model by issuing cryptocurrency and opens up a way for ordinary people to easily invest in IP and earn stable profits.

NPER COIN

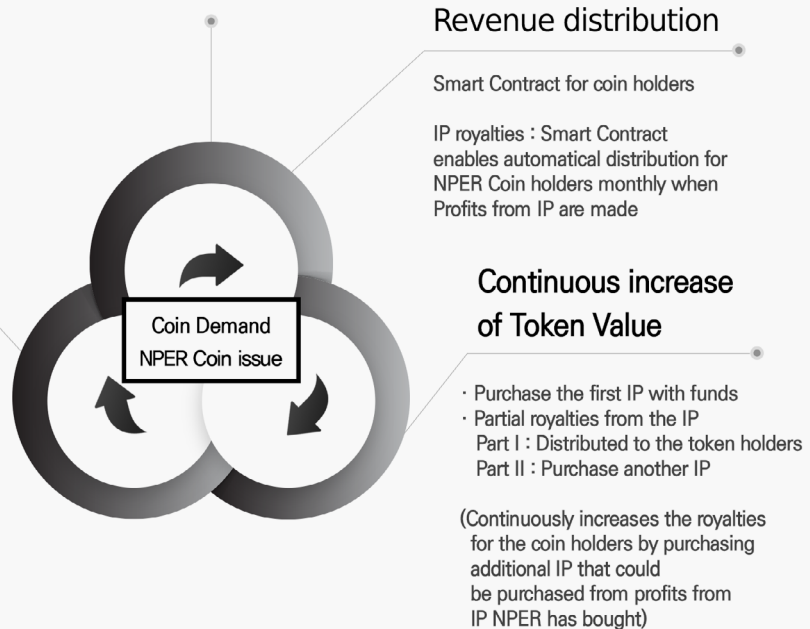
NPER Peer to Peer IP Network

- All the trades at NPER's Peer to Peer IP Platform are made with NPER Coin, ETH or BTC
- Fewer fee is charged when NPER Coin is used comparing to ETH or BTC

Making a new way to invest on IP

- Purchase the IP w/ Initial funds
- Token sale participants receives Royalties proportional to the amount of invested funds during token sales
- If investor put token on the market, he/she can sell his/her owning stake for IP.

(Hash is issued that verifies the ownership of the IP : Certain Hash is marked and publicized on NPER blockchain.)



< Figure 9 : NPER Coin >

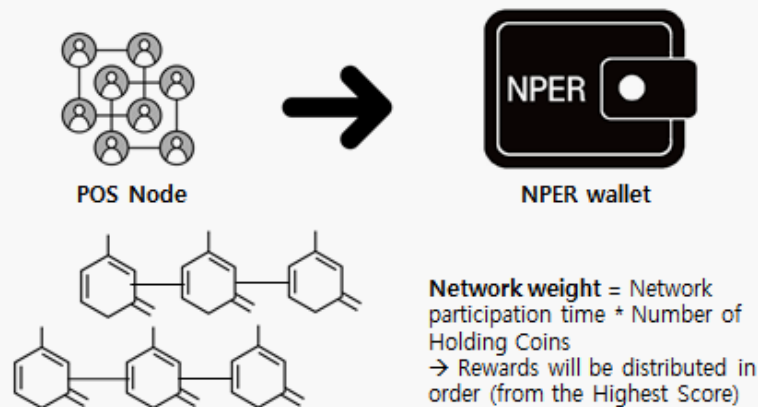
4.2. Incentives for POS Node construction

The consensus algorithm for the block generation of the NPER chain proceeds with POS (equity verification method). The node has the opportunity to participate in the block creation in proportion to the NPER coin ownership held by the NPER wallet. Therefore, the higher the stake ratio, the greater the contribution to block generation, and the greater the incentive compensation for block generation. The initial NPER coin issuance is 250,000,000, and after the main network construction is completed, an incentive is given to the node. The incentives for the nodes will be automatically calculated and issued in consideration of the inflation rate and the like within a certain fixed NPER coin.

In the NPER main network, a node that participates in the POS method and generates a block is rewarded by the network weight.

$$\text{Network Weight} = \text{Network Participation Time} * \text{Number of Coins You Have}$$

The nodes that generate the block are compensated from highest to lowest network weights. The establishment of master node for stability of NPER block chain network will be considered after testing network stability after main network construction.



< Figure 10 : Network Rewards >

5. Business Model

NPER offers a new investment business model that allows investors to invest in the IP market while building a platform for creators to take legitimate rights. NPER's integrated business model for both creators and investors is much more efficient and more realistic than the business models presented by existing blockchain projects.

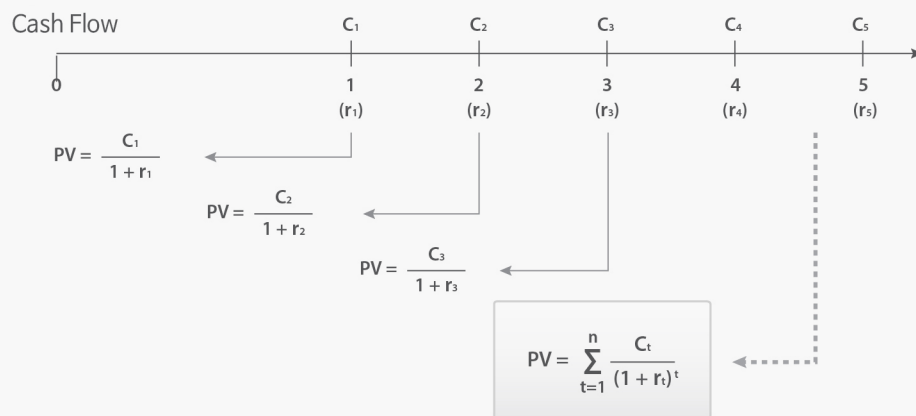
As soon as NPER purchases the partial or whole of the IP, it will be put into NPER coin and it becomes digital assets immediately. In other words, NPER coin holders will have the right to get royalty income from digitized IP asset as soon as they purchase the IP. Therefore, at certain times, IP royalties are automatically distributed by smart contracts. At the same time, NPER is developing a global peer-to-peer IP exchange. It is much more efficient and more feasible than existing projects with billions of dollars in development costs.

5.1. Purchasing/Renting IP right & Digitalizing Asset into NPER coin

Before mentioning the Business Model, there is one question: Is there anyone who is going to sell the right of IP as it consistently generates the royalties? The answer to this question is in the cash flow.

Let's say there is a work called A which earns an average of 500 million won a year. If the copyright owner holds the copyright of A for five years, the royalty revenues after five years will be about 2.5 billion won. Copyright Merchants may sell copyrights at a lump sum for royalties to finance financing for the creation of other works. If the value of the money after five years is converted into the value of the present money in consideration of the annual interest rate of the relevant country, it gives the copyright seller an opportunity to generate a profit greater than the 2.5 billion profit after five years. <Figure 10: Present Value and Future Value of Cash Flow>

In other words, the creator can easily procure large financial funds that will carry out other business or creative work through copyright sales or leasing. NPER, on the other hand, can earn stable profits because it purchases copyrights at a cheaper price than expected revenues from royalties or other value-added benefits.



< Figure 11 : Present Value and Future Value of Cash Flow >

*** PV = Present Value of Future Money,**
C_n = Value of current money n years later, rn = Market interest rate in n years

Let's take an example of David Bowie, which was a real music copyright trading case. Prudential bought a 10 - year royalty for 300 songs from David Bowie for \$ 55 million. The copyrights were issued to bonds and generated stable earnings of \$ 440 million a year. It is difficult to predict exactly how much Prudential has valued the copyright royalties of Bowie for 10 years. It can be estimated range from approximately \$ 70,000 to \$ 900,000.

Bowie bonds were merely bonds issued for copyright royalties, and transactions were difficult because they were bonds. However, NPER holds the copyright on the NPER coin, not the bond. Digitalization of copyrights allows people to buy and sell decentralized copyrights that are worth the investment. Reduces royalties, other value-added distributions, and capital gains from rising coin value to revenue for NPER coin holders. It is not only limited to music copyright. If you lease or buy ownership of intellectual property that has potential value in various fields such as characters, fonts, and software, you can have a good investment opportunity.

5.2. IP Royalty Distribution

NPER purchase IP A for the amount obtained through token sale. The royalties on this IP A will come on a certain date, and the snapshot will be announced at a certain point in order to distribute this royalty income. At this time, royalties will be returned to NPER coin holders at the rate of their coins and 90% of royalties will be distributed. All of this process goes to Smart Contract with NPER Money Exchange API. The remaining 10% will be used for other IP and foundation management costs, and the remaining 10% will be paid to coin holders. The NPER Foundation has a 40% NPER coin of its total coins. This will be used for other IP purchases and other marketing & platform development costs, and some will be returned to the NPER coin holders through AIRDROP in the future.

5.3. Value added Businesses with other contracts

When purchasing copyright ownership, the second value-added business shall be carried out within the scope of usage which is clearly agreed. This creates added value. This revenue is also used for other platform maintenance costs and other IP purchases. We also invest in proprietary rights such as characters, software, music and publications that have potential for growth, and enter into various businesses using IP. However, if the revenue exceeding the amount paid to the creator is created by the royalties from the value-added business, 50% is paid to the NPER coin holder and 50% to the original creator. NPER seeks not only to capitalize on the creators' rights, but also to grow together to share the creator's values with everyone.



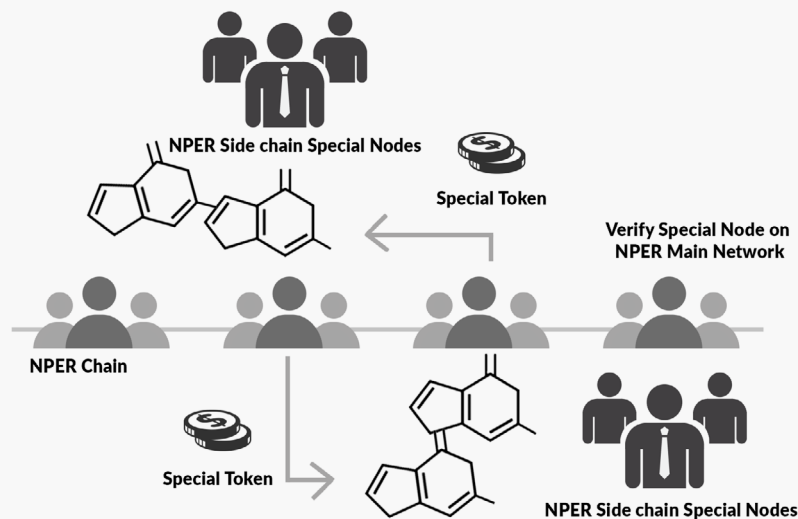
< Figure 12 : NPER IP Investment BUSINESS MODEL >

As shown in the figure above. The amount generated by 5-1, 5-2, 5-3 is used again for Intellectual property B purchase and other platform maintenance costs. Intellectual property B again generates revenue with the above mechanism. With this structure, C, D, E, F ... continue to purchase new IP. In the end, the royalties that NPER coin holders will receive and the value added resulting from them will continue to increase. Therefore, the value of the NPER coin itself continues to rise. As the number of NPER Foundation holdings increases and the royalties to distribute increase, the coins of the remaining funds are AIRDROP to all owners step by step.

The market for cryptocurrencies, starting with Bitcoin, continues to grow. Some economists predict that the market will grow into more than 1 Trillion USD in the future. In 2016, the 100 Million USD worth market has grown to more than 0.2 Trillion USD this year. The NPER coin, which will be a significant coin as a cryptocurrency, will grow along with the growth of the market, and will change the world with the blockchain.

5.4. Issuing Special Token with Side Chain

NPER will issue a limited edition special token in the side chain, not the NPER main chain. It is an independence of the value of the NPER coin because it is issued by the side chain rather than the main chain. When NPER makes a purchase in the field of music copyright, it purchases the right of ownership or royalties of the copyright of that song. In this way, the special token of the copyright of the contracted singer is limitedly issued and sold. (Special tokens are completely different from NPER coin values because they can not be traded in an external exchange.)



< Figure 13 : NPER Speical Token in Side Chain >

Let's take an example. Popular singer A has more than a few hundred thousand fan club members. Tickets are sold out in 1 to 2 minutes each time a concert is held. A concert tickets are sold three to four times more expensive than the list price. To participate in A signing or fan meeting, you have to go through very high competition and wait in line for hours to see A. At this time, NPER enters into a contract with A and purchases the copyright or royalties of the songs owned by A, and issues the limited edition token under the name Nper-A. If you have this token, you are decentralizing some of the songs in A and registering that you own the copyright on A on the NPER block chain. Everyone can see this, and people holding Nper-A will split A's royalties on the song into existing NPER tokens at some point every month.

If you have an event such as a concert or fan meeting, you have the right to purchase a ticket in the first place, and you can meet Mr. A without a line. Only for Nper-A token holders, Mr. A will hold a fan meeting and send an invitation. The Nper-A tokens, which were released as limited editions, will be sold to people by auction, and buyers will receive a variety of benefits. The auctioned Nper-A tokens are used to distribute the proceeds back to the NPER token holders and to purchase another copyrights. Since it was released as a limited edition, anyone who wants to purchase Nper-A tokens later can trade with Nper-A token holders and peer-to-peers according to <Figure 6: NPER Distributed Rights Management Mechanism>. Likewise, not only music, but also works of writers, poets, painters, etc. will be applied to the NPER project.

Method on selling copyright through auction, and checking whether the product is registered through block chain method

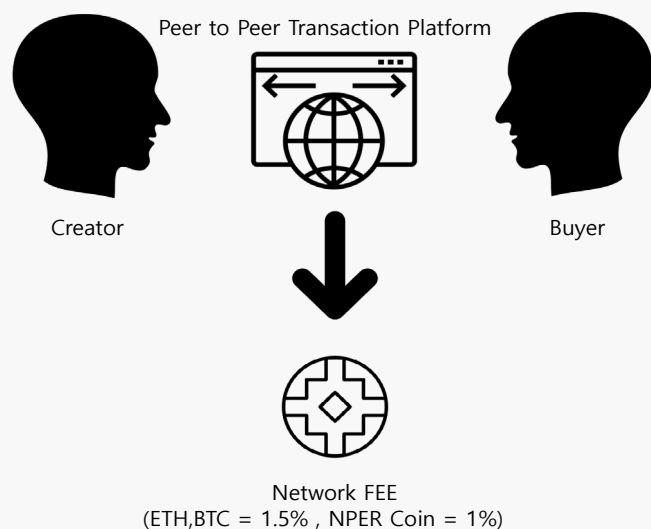
```
function boolean regGoods(Address _owner, long _goods, @Nullable Option _auction){ if(isCopytight(_owner, _goods){return isSuccess} else{return isSuccess}}
```

5.5. NPER Network FEE

According to <Figure 5: NPER Distributed Rights Management Mechanism>, in accordance with the NPER's distributed rights management mechanism, distributed rights holders must go through the process of registering on the NPER block chain in order for all rights to be recognized.

You must submit a coin to be registered on the NPER block chain. Upon completion of registration, two hashes are issued, and everyone can verify ownership through a public hash search on the NPER block chain. Distributed IP holders will submit coins as much as the desired percentage of distributed IP, with 0.0025% of the initial submission coin coming into the NPER Foundation. Finally, when you withdraw a coin by private hash, the amount of 0.0025% deducted from the amount of coin you originally submitted is withdrawn. This is called Network FEE. 30% of Network FEEs go back to their NPER coin holders as much as their coin hold ratio. The Network FEE does not apply to 5.4 Special tokens.

5.6. NPER Peer to Peer IP Trade Platform Network FEE

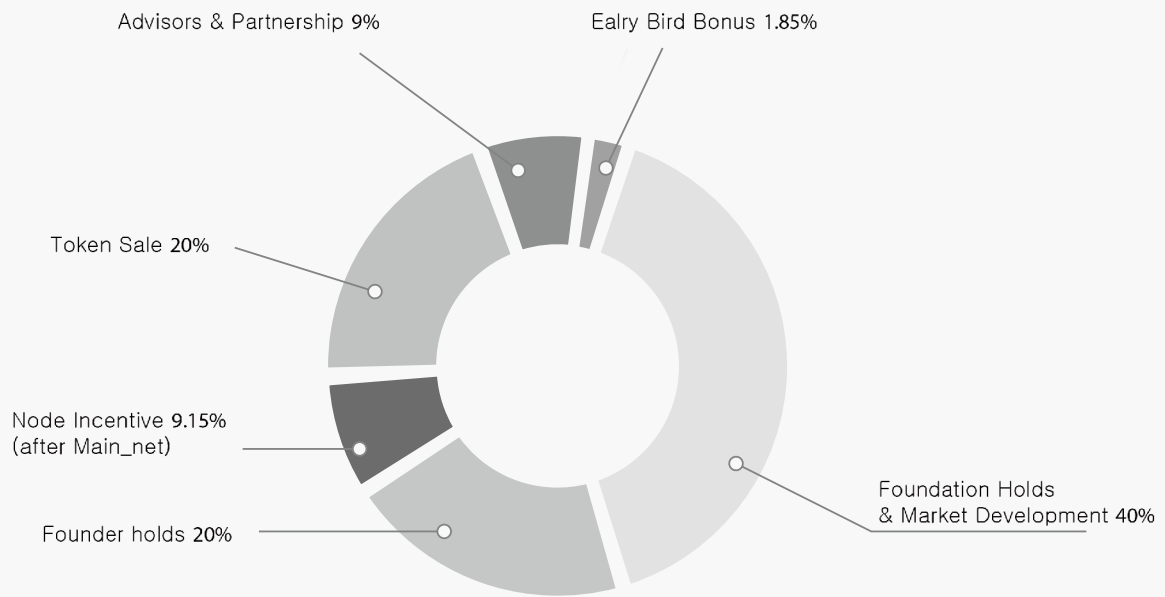


< Figure 14 : NPER IP Trade Platform Network FEE >

All exchange users conduct NPER coin and etherium and bit coin transactions on the NPER platform. Peer-to-Peer IP transactions are subject to a commission fee. At this time, a fee of 1% will be charged if the payment is made using the NPER coin, but a fee of 1.5% will be charged if you use the etherium and bit coin. This removes the excess brokerage fees traditionally owned by the copyrighted work. This fee is used to support off-line services for platform maintenance costs and copyright transfer procedures for peer-to-peer traders' countries.

It does not mean that the termination of a transaction on IP at NPER 's global peer to peer exchange makes the termination on all of the procedures. If there is an inter-individual transaction of ownership of a work, there is a country that requires an administrative process of transferring of the work. Other projects do not consider these post-process, but NPER will support some of the administrative procedures for each country as an off-line service in the future.

6. Token Distribution



Total Volume : 250,000,000 NPER
1ETH = 5,000 NPER
Presale = 10% Sale with 15% NPER Bonus
Crowdsale = 10% Sale with No Bonus
Hardcap = 10,000 ETH

7. NPER ROADMAP

Business Model

- MOU with BitBank
- Cooperation with Chainus
- Presale

- Crowdsale
- Listing of NPER on exchange
- NPER Copyright Consortium Open

- Purchase first Intellectual Property
- NPER Copyright Consortium Artist Join
- NPER Copyright Consortium First Conference

- Distribute First Royalty to NPER Holders
- NPER IP rate of return DashBoard open
- Extend Business Model based on First IP

2017
Q4

2018
Q1

2018
Q2

2019
Q1

Technical Model

- Testnet Deployment
- NPER Token Issuing

- DAPP WEB/iOS/Android Prototype development
- NPER Wallet Prototype

- DAPP WEB/iOS/Android Prototype open
- NPER Wallet Beta open
- NPER IP ROI Dashboard Prototype open

- DAPP Release
- Wallet Open,
- Mainnet Prototype Opening
- Peer to Peer IP Trade platform Beta open base on DAPP

8. MEMBER Partnership & Advisor

CEO - Daniel Nam : As general manager and operation planner, he has accumulated project planning and operating experience at Hyundai Motor Group. He was the youngest Entrepreneurship Division leader in multinational NGOs and also contributed to the founding of third-country and developing country towns. He has served as the chairman of the Global Social Business NPO and has won many awards for domestic and international business idea competitions.

COO - Ryan Kim : He is the service planner and general manager of the project. He majored in Germanistik and business administration at University and worked at securities firm to develop sales and investment planning ability. In 2012, he introduced the talent donation project, which was an unfamiliar concept in Korea, and received the attention of the media and received a congratulatory speech from the Minister of Health and Welfare.

CTO & S/W Engineer - Mike Lee : He developed large capacity data collection and analysis service at the government of the Republic of Korea. Since the early days of the Internet, he worked at WEB-International and Nextel New Media Research Institute and developed various services related to large-volume data collection and analysis. He developed Remote Mining Management of cryptocurrency Web, and also developed and distributed various web and PC programs

CMO - Johnny Lee : As a marketing planner and copywriter, he had marketing experience with LOTTE Group and Japan Dentsu subsidiary, planning IBK Industrial Bank, Daewoo Securities, Samsung Life Insurance, Gucci, etc. Planning, marketing, and selling of social matching services, and has planned and operated about 1 million fans 'SNS channels and 500,000 users' vertical community services.

CSO - Hanna Kang : She is observing customers and discovering value, integrating them into services, and delivering them to customers through media. She has worked for an IT consulting firm, analyzing customer experiences in a variety of banking, insurance, and capital markets, and incorporating them into strategy and service design. She is a visiting columnist at the Economic Research Institute.

S/W Engineer & Blockchain core DEV - Alex Park : He participated in DB Security and Hadoop security project at Samsung Software Center Security Lab. also have experienced numerous security issues and distributed server DB building through many web projects for 10 years. Currently, constructing a number of cryptocurrency nodes such as bitcoin, ethereum, and lightcoin, and developing the exchange.

Full stack DEV - Henry Kang : He has developed a web front & back-end service with more than 100,000 hardware nodes at Samsung Electronics and earned a professional grade in algorithms. He also joined Water Bear Software (It has been merged with ST Unitas) as a founding member, and developed Android & iOS application. Then he studied hardware communication technology such as ZIGBEE and BLE at Korea Electronic Components Research Institute (KETI). He also joined 'Buildit' as a CTO, leaded the web and app development of the company as a whole, and has developed various commercialized service development experiences.

S/W Enginner & Researcher - Jason Lee : He participated in the implementation of Tizen OS algorithms at Samsung. He has worked on Samsung Software Center and has accumulated various artificial intelligence and platform development experiences. At Korea Electronics Technology Institute (KETI) he invented the image signal processing algorithm. He always has participated in various projects to solve real life problems by software.

Project Manager – JW NOH : He experienced in developing and researching user experience in Samsung Electronics and creating various services. He founded a block chain research center with virtual currency trading and mining, and founded the social trading exchange 'Bitbank'. Currently, he is in the process of holding patents and lectures on block chains.

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