MyCreditChain

Building Trust with Your Data

WHITEPAPER

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Abstract

Data is at heart of the economy : It is transforming the world. Personal data is an important asset in today's data-driven society. Based on personal data of customers, companies design their products, implement their marketing strategy, and target their customers. Credit data, with which a credit bureau evaluates individuals through its own evaluation criteria, is the basis for economic interaction among people in a society. Financial institutions manage the risk of their loan products and price the risk premium for insurances. With the application of big data, personal and credit data is the driving energy of an economy in the era of Fourth Industrial Revolution.

Personal data is owned and used by major corporations, and these corporations are making huge money on it. Credit data is stored in the servers of a few credit bureaus and financial institutions. Individuals, who generate the bulk of the data, and are its rightful owners, however, do not receive fair compensation. More often than not, individuals do not have a choice but to accept that they hand over their personal data in exchange for the service to be delivered.

Although corporations/traditional credit bureaus have been the greatest beneficiaries from these market circumstances, their increasing needs for most up-to-data and accurate consumer data are not currently being met. There is no platform in which a company can get access to massive web of personal information, thus meeting customer's changing demands and securing its market share, without the risk of legal liability and reputation.

The market for personal and credit data is growing explosively. And yet, there is a limit to how the data is collected, processed and disseminated, and how its value is shared. Prominent issues that need to be considered in this phenomenon are the value of data from different perspectives, that of an individual and a company, and how the understanding of these perspectives can contribute toward the social progress and the economic development of a society.

> **MyCreditChain is a blockchain-based platform**
> **where an individual's Trust Data is generated and monetized.**

MyCreditChain aims to produce Trust Data, with which the issues raised in the current data market will be tackled. Individuals will have the full ownership and control over their Trust Data and get reward for the consent they provide for their data. By joining the MyCreditChain ecosystem, corporations can get access to comprehensive and quality potential customer data and add value to the data, thereby creating new opportunities.

Trust Data will be used in various institutions, including the financial sector. It will also be used to measure and provide credit for those who do not have enough data to evaluate their credit scores by the existing credit bureaus, providing benefits for many people without proper access to finance.

In this regard, MyCreditChain is a game-changer. With Trust Data, MyCreditChain plans to build a win-win data marketplace, for both individuals and corporations. MyCreditChain can play a significant role as a decentralized economy is an inevitable trend in the current market situation. The alliance between the existing companies and MyCreditChain will create a massive synergy effect, and individuals will get direct benefits.
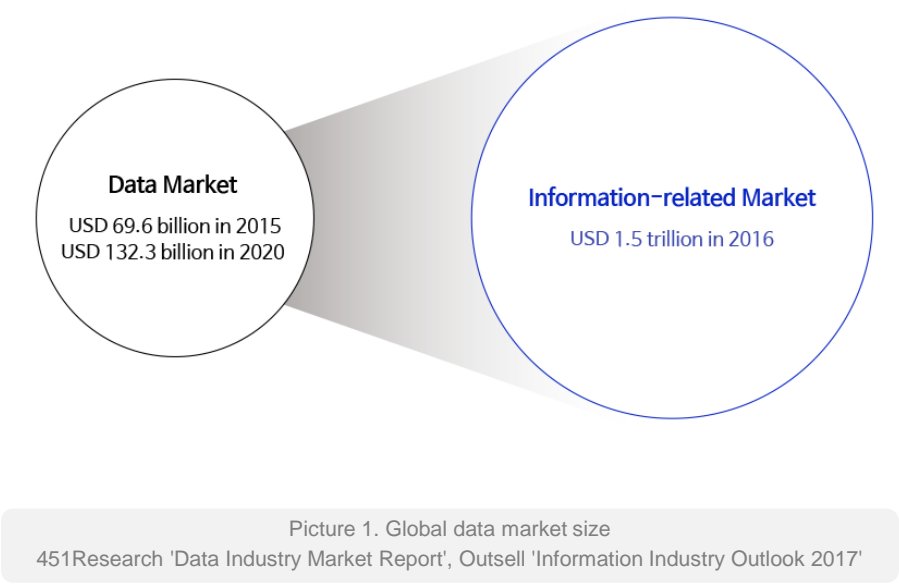
1. Business Background

Over the years, a number of sources have indicated the rise of data market. How businesses of all shapes and sizes succeed heavily depends on how they leverage the data in decision making.

The relevance of collecting, analyzing, and using data lies at the heart of the Fourth Industrial Revolution. Data is the source of power and wealth. The value of MyCreditChain can be seen from the two main perspectives, that of an individual and a company.

MyCreditChain democratizes the accessibility to personal and credit data for individuals by enabling their ownership of the data. Within the MyCreditChain ecosystem, individuals can manage and make profit out of their own data. The MyCreditChain ecosystem will be a level-ground for companies from various sectors. Any company can come into the ecosystem and use the data to guide marketing, product development, and sales of all sorts. MyCreditChain will build an ecosystem that connects businesses and people around the world.

1.1. Data Market

Data Market
USD 69.6 billion in 2015
USD 132.3 billion in 2020

Information-related Market
USD 1.5 trillion in 2016

Picture 1. Global data market size
451Research 'Data Industry Market Report', Outsell 'Information Industry Outlook 2017'

1.1.1. Data market size and its prospect

The global data market size is expected to grow from USD 69.6 billion in 2015 to USD 132.3 billion by 2020. The global information market, which processes the data and provides data-related services through online and offline channels worth USD 1.5 trillion. These numbers suggest that the data industry overall is expected to continue growing as the global trend holds enormous potential in this field. There is palpable demand and huge growth across the data economy.

1.1.2. Limitations

Despite its enormous size, current data market has been struggled from the following limitations. For data market to expand above and beyond its current status, and to bring out its full potential, a fair ground for data market must be established.

From a MyCreditChain standpoint of view, the issues raised in the current data market can largely be classified into two categories: that of personal data and that of credit data.

Limitations of personal data market

- **The risk of data breaches, privacy violation and hacks**
  As most of existing corporations use centralized databases, they are at high risk of data leakage. In fact, data leakage is occurring every year. In South Korea, the information leakage accidents occurred in 2014 caused more than USD 15 billion of damages. Eventually, direct and indirect social cost incur in setting up measures for data management in a centralized database. Also, data breaches are hard to keep track of, and even more difficult to respond to for individuals.

- **Data subjects do not have full control over their data.**
  Individuals have little knowledge or control over how the company will use their data and are not able to prevent the secondary use of personal information.

- **Data subjects do not have ownership of their data.**
  The source of information is the person. From the moment information is provided to corporations, however, it is recognized as the transfer of ownership. Then, the information is utilized as a marketing tool by, and for, corporations. Individuals do not receive reasonable compensation. The revenue generated from personal data has been unfairly allocated.

- **Corporations need a means to obtain data without the risk of legal and financial liabilities.**
Evolving market demands coupled with the limited access to consumer data put considerable pressure on corporations to look for a means to get comprehensive data to seize a competitive advantage. If corporations were to obtain the data on their own, there are still many challenges that need to be addressed — challenges that make the process extremely bothersome and costly.

Limitations of credit data market

- **The current credit rating method provides only a partial picture of an individual.**
Credit scores based on the current evaluation method are mostly used in the financial sector, and, sometime, do not reflect an accurate picture of an individual. The credit evaluation is entirely based on the rating agency's criteria. As a result, the credit score of an individual may vary depending on which credit bureau assesses his/her credit rating.

- **The unbanked and thin-filers**
Despite the strong growth in the financial sector, there are still numbers of people who do not have access to finance. The existing credit rating methods rely on a narrow set of data, and have a limited reliability, and/or are not insufficient, to evaluate an individual's credit worthiness. Under these circumstances, 59% of the world's population (about 4.5 billion people) are the unbanked[1], adults do not have enough data to evaluate their credit scores, and thin-filers, people with little credit information, are alienated from the proper accesses to finance. These people, without or lack of the traditional credit data, are deprived of financial benefits, and end up living in a circle of poverty.

- **Relying on a narrow set of data**
Major factors used in the traditional credit rating method are annual income, years of working, level of wealth, etc. Although these factors are important criteria that can demonstrate one's creditworthiness, they are not sufficient enough to provide a multi-dimensional depiction of a person. In addition, the data mainly used in the current credit rating method is outdated. There is a limit to evaluating an individual based on narrow and past set of data. The application of big data has called for the market environment where there is an increasing demand for utilization of multi-layered data. The credit information generated from the current mechanism solely will not be able to fulfill the needs.

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1) LTP – Let's Talk Payments, March 16, 2017

1.2. The Objectives of MyCreditChain

MyCreditChain aims to revolutionize the process in how personal and credit data is gathered and used. The MyCreditChain ecosystem is a blockchain-based data marketplace where Trust Data is generated. Trust Data will be an innovative means to solve the issues surrounding uses, functions, and ownership of personal and credit data. Any individual, enterprise and organization can join the ecosystem and obtain an access to Trust Data. Any transactions of the Data made in the MyCreditChain ecosystem will be guaranteed its transparency, traceability, security, and, most importantly, trustworthiness. Participants will get their fair share of the profits generated from the transactions. With these features, the platform expands and evolves by itself, and will create tremendous amount of new value via Trust Data transactions among the network participants.

The objectives of MyCreditChain can be outlined as follows.

Returning the ownership of and control over personal data back to data subjects.
In the MyCreditChain network, every transaction of data is based on the owner's consent, thus securing the rights of data subjects. The MCC's user consent platform enables a data subject to exercise the full ownership and control over his/her personal data.
With this unique feature, an individual can easily manage their own data and receive a fair reward from the data consumer.

MyCreditChain builds a marketplace where corporations can get access to most up-to date and trustworthy data.
By coming into the MyCeditChain ecosystem, corporations can get hands on massive potential consumer data. The data provided within the ecosystem is in scope and depth unseen before because individuals are willing to reveal their own preferences, the most effective and wanted marketing tool for corporations, due to MyCreditChain's incentive mechanism. MyCreditChain is a two-way market in which both sellers and buyers can easily fulfill their needs. In turn, MyCreditChain user base will expand exponentially.

**Secured personal and credit data transaction.**

The data handled in the MyCreditChain ecosystem will be encrypted and stored in a distributed database. The data collected is cut into pieces and stored at separate IPFS nodes. When data is sold to a data consumer, a corporation will have an access to the data for the limited period of time, after which the data is automatically deleted. Since there is no centralized platform to be hacked, the data will be kept secure.

Trust Data will be produced within the MyCreditChain ecosystem.

MyCreditChain aims to produce Trust Data, which provides a multi-dimensional depiction of an individual's trustworthiness. There is more data available that people have and that are not accounted for when assessing an individual's credit worthiness. The utilization of these data will deliver a better reflection of an individual. We strongly believe that Trust Data can be used in not only the financial sector, but in every industry that looks for a means to have a deeper understanding of its customers. It will unlock the limitations of traditional credit rating models.

2. MCC Ecosystem

The MyCreditChain ecosystem is the marketplace where Trust Data is generated and assetized. Within the ecosystem, huge volumes of data will be handled and utilized, creating various business opportunities.
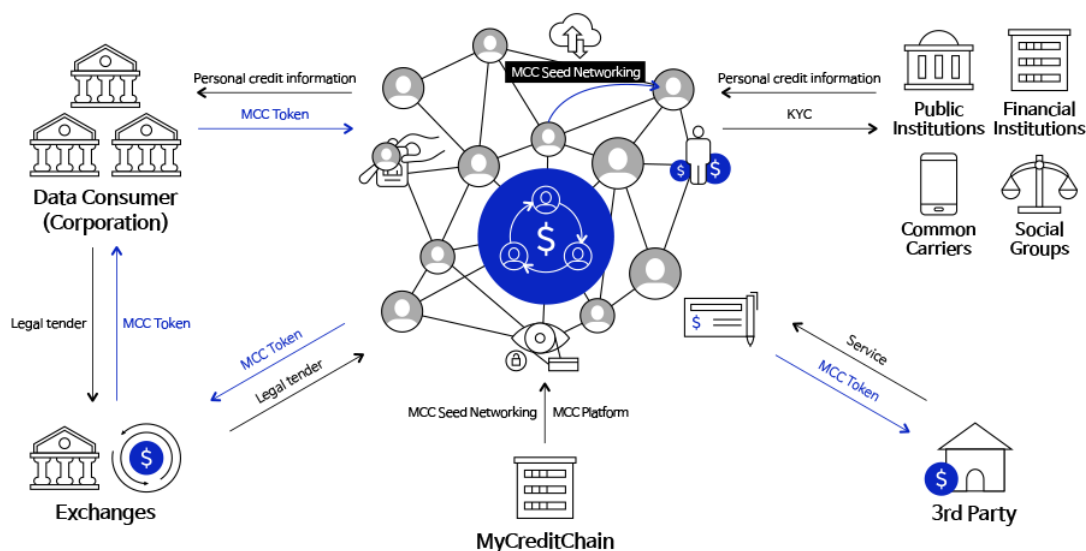
Picture 2. MCC Ecosystem

**MyCreditChain ecosystem: Decentralized Trust Data Marketplace**
MyCreditChain aims to unlock the limitations of the centralized system and build a blockchain-based decentralized platform.

1. Bringing the ownership of and control over data back to the data subject
2. Revenue shared fairly and transparently
3. Data marketplace, a win-win situation for every participant

2.1. Participants

Participants in the MyCreditChain ecosystem can be classified into the three categories: 'Data Provider,' 'Data provider,' and '3rd Party.'

The MyCreditChain ecosystem is a two-way marketplace where both Data Providers and Consumers can meet each other's needs and get benefits via selling and buying the data. 3rd Parties will expand the range of the data-driven services by data processing and resales, and other add-value functions.
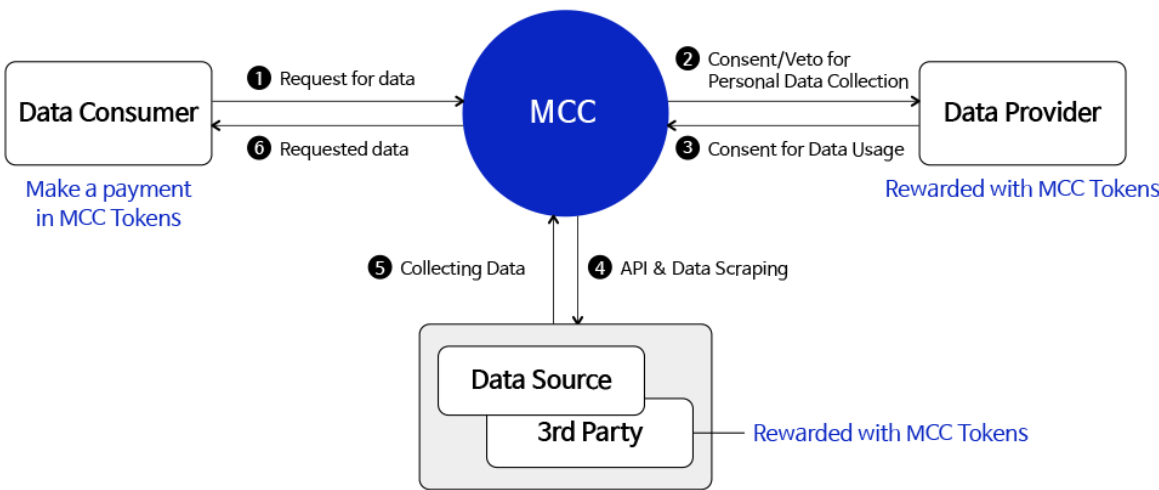
Picture 3. Service flow of MCC Ecosystem

2.1.1. Data Provider

'Individual' in the MyCreditChain ecosystem
After passing the KYC procedure, individuals will be able to join the ecosystem.

Role

- Data Providers provide the following data to the ecosystem :
    - Traditional credit information (annual income, asset status, credit score, etc.)
    - Personal data (Social media activities, expenditure on personal consumption, phone bill, etc.)
    - Social/reputation data derived from the Seed Networking.

Benefit

- Data Providers are expected to gain the following benefits from the ecosystem :
  - Easy monitoring and management of their data.
  - Full control and ownership over their own data, thereby preventing the abuse of the data.
  - Financial gains by selling the data, and by participating in the MCC Seed Networking.
  - The record of personal data usage and transaction are managed transparently and easily tractable.

2.1.2. Data Consumer

'Corporations' in the MyCreditChain ecosystem.
Data Consumers are required to satisfy the basic rules and conditions for authentication to join the ecosystem.

Role

- Data consumers can have an access to the data, specifically targeted for their business purposes, as they pay the data subjects with MCC tokens.

Benefit

- Huge amounts of potential customer data, which can serve various functions, such as product design, implementation of marketing strategies, etc.
- Utilization of Trust Data
- Easy access to the personal data.
- Companies can meet their customers by purchasing their information and, in turn, market their products directly to the customers in the MCC network.

2.1.3. 3rd Party

Individuals or enterprises that process the data generated in the ecosystem for various purposes. (Ex: Data scarping technologies provider, big data analyst, credit bureau, etc.)

3rd Parties will register the reasons for providing the data in the MyCreditChain ecosystem, and ensure the integrity of it. Its reliability is examined and verified by MyCreditChain.

Role

- The 3rd Party is the participant who provides required technologies, additional analytical data or additional collected data by utilizing the data in MCC platform. The 3rd Party can act as a node operator. 3rd parties must submit the detailed description on type of data usage and its purpose at the time of subscription. MCC will conduct a rigorous participation certification process for 3rd parties. 3rd Party will be compensated for the for contributing such features to the platform.

Benefit

- Various business opportunities, such as data scraping, processing and analysis, etc.
- Creating significant added value to the data by utilizing the data in the ecosystem.
- Resale of the processed data for profits.

2.2. Trust Data Marketplace

2.2.1. Definition of Trust Data

Trust Data refers to the data generated within the MyCreditChain platform. Trust Data, verified its reliability and applicability by MCC, reflects a multi-dimensional depiction of an individual's trustworthiness, which can be utilized for various purposes.
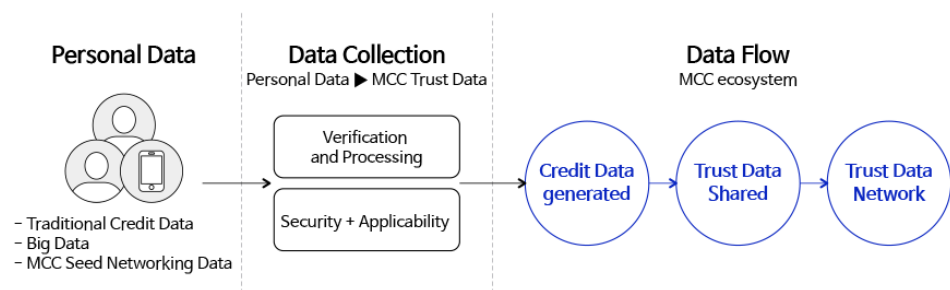

Picture 4. Trust Data collection and distribution

2.2.2. Types of Trust Data

MCC Trust Data can be categorized into three types based on its function

| Type	General Trust Data	Packaged Trust Data	MCC Reliability Measure
Concept	Data requested by Data Consumer	Selective Data Set requested by Data Consumer	Data derived from MCC Seed Networking
Purpose of Use	Product design, marketing strategy, consumer targeting, etc.	Multi-dimensional depiction of users	Evaluation of users' reliability by more advanced approach.
Payer	Data Consumer	Data Consumer	Data Consumer
User	Data Consumer	Data Consumer	Data Consumer
How Data is Delivered	Targeted Personal Data	Selected Data Set	Personal Data + MCC Trust Measure
Term of Service	Once	May vary depending on requestors	Once
Estimated business type	Marketing department	Used market, home-sharing, (Sharing Economy)	Loan, recruitment

General Trust Data
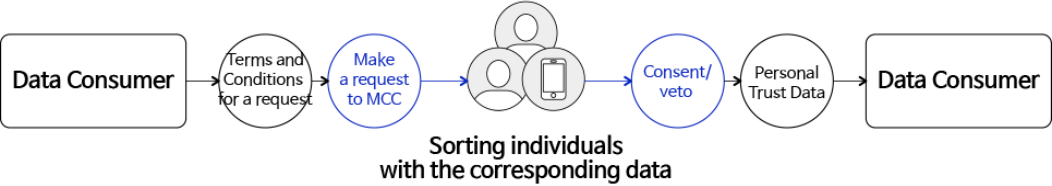
Picture 5. Personal Data distribution flow

The concept and use of General Trust Data can be explained in the following steps.

1_Data Consumers participate in the MyCreditChain ecosystem to have an access to customer data.
2_Data Consumers make a request for individuals' personal data. (Data consumer shall set out terms and conditions of the request)
3_Individuals with the corresponding data can be recruited on a first-come, first-served basis.
4_ Data Consumers can also specify the target population, and include several options, such as survey and direct contact with potential customers, when making an offer on the data.
5_The costs of the request will be varied by the value of personal data and the options of a request.
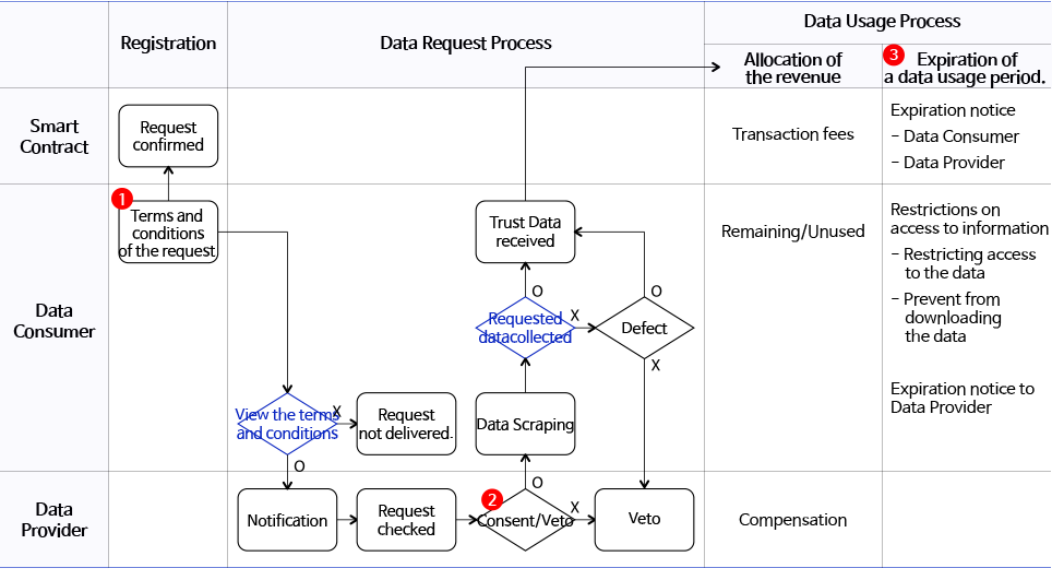
Picture 6. Detailed flow of personal trust data

General Trust Data Transaction Flow
① Data Consumer makes a request for Trust Data in times of need.
② Individuals has the full right of consent/veto over the request.
③ Data Consumers have preset period for the data access.
* Every transaction to be made will be stored and managed transparently in blockchain.
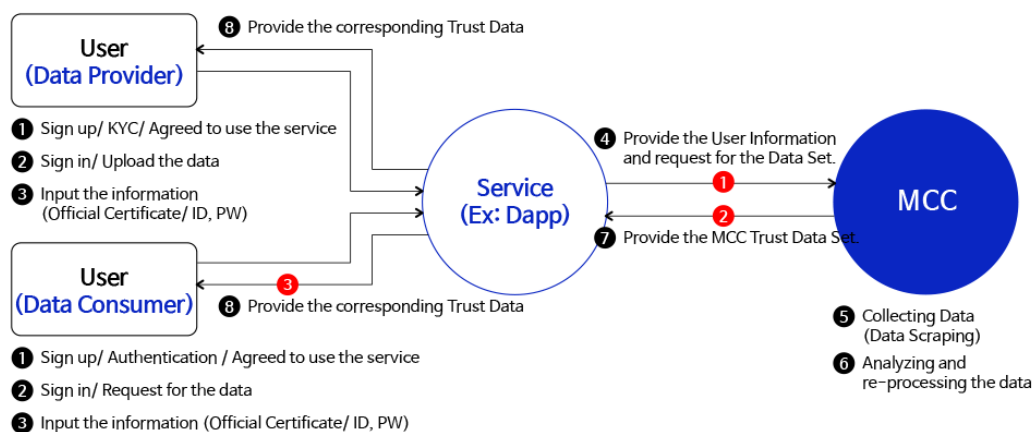
Packaged Trust Data

The advent of blockchain technology has led to the creation of various Dapps, which calls for the increasing need for user authentication. Moreover, these services are searching for the method to evaluate the trustworthiness of a user. These new demands can be easily found in the high tide of the sharing economy.

In response to such increasing demand, MyCreditChain provides Trust Data Set as Middleware that facilitates the evaluation of a user's reliability.

Trust Data generated by the MyCreditChains platform will create great amount of new added value that can be desirably implemented into various businesses. Building partnerships with other Dapps and existing companies will spawn new opportunities.

With Trust Data, Data Consumer can target and know their potential customers, manage the risk, and improve the customer service. Data Consumer can obtain accurate and diverse Trust Data on the approval from the data subjects by joining the MyCreditChain ecosystem.

Items to be provided as Packaged Trust Data are selected from the entire data within the MyCreditChain platform based on the need of a Data Consumer. The cost for Packaged Trust Data will be varied by the numbers of data providers and the extent to which how much of data is included in the data set.

Picture 7. Packaged Trust Data distribution flow

Packaged Trust Data Transaction Flow

① Data Consumers make a request for the Packaged Trust Data.

② On the approval from the Data Provider, MyCreditChain provides the requested data set.

③ Every transaction to be made will be stored and managed transparently in blockchain.

* Every transaction to be made will be stored and managed transparently in blockchain.

[MCC Data Set Example]

The following case demonstrates how MCC Packaged Trust Data can be delivered to and used by a home-sharing business. The subjects included in the Data Set may vary.

Picture 8. Example of accommodation sharing service

Table below. Provided Data Set (partial)

Site	Data	Contents and utilization	Derived data
Facebook	Keyword Analysis	Analyze communication and social inclination by commenting on users and others, and analyzing keywords of posts. → The trust score is calculated by analyzing the social inclination between the host and the guest.	Propensity data
	Analyze profile information	Analyze user profile information registered on Facebook. → Apply the reliability score of the guest as a calculation item.	Estimated occupation
	Friend Analysis	Analyze communication and social inclination through keyword analysis of SNS posts and comments of users registered as users and friends. → The trust score is calculated by analyzing the social inclination between the host and the guest.	Propensity data
Complaints 24	Resident registration residence	Host and guest residence address → Compare the user's actual residence with the sex offender's residence address.	User confidence
Public Open Data Portal	National CCTV Standard data	National CCTV installation site data → Crime exposure rate calculated by CCTV installation around the hotel.	Crime exposure rate
	Crime rate by region	Crime rate data by country (city / province, city / county / district) → Calculate the crime rate for the area where the hostel is located.	Crime exposure rate
	National Police Station Address (Police box, security center)	National Police Station Address Data → Calculate the crime exposure rate according to the distance of the address of the hotel and the local police station.	Crime exposure rate

Site	Data	Contents and utilization	Derived data
Supreme Court Registry Office	Certified copy of registration	Compare the address of the building and the owner of the room. → the hostel address with the actual ownership of the host.	Accommodation credibility
Ministry of Gender Equality	Statistics by Sex Offenders Region	Regional statistics of sex offenders who have been ordered to release sex offenses for children and adults. → Compare the hostel address and the sex offender statistics by region. / Compare the actual address of the host /guest and sex offender.	Crime exposure rate
Ministry of Foreign Affairs	Travel warning system	Travel risk data by country → Calculate travel safety data when booking an overseas accommodation.	Travel Safety
	Special trip warning system	National data on issues such as short-term police anxiety or epidemic epidemics → Calculate travel safety data when booking an overseas accommodation.	Travel Safety
	Travel alarm history by country	Travel alarm history data by country → Calculate travel safety data when booking an overseas accommodation.	Travel Safety
Health Insurance Corporation	Disease data	Infectious disease data → Check whether guest is infectious	User confidence
Criminal inquiry (overseas)	Criminal history data	User's criminal history data → Check the overseas criminal history data.	User confidence
Airbnb	Airbnb SNS participation data	Analyze the keywords and numbers of participating in Airbnb's SNS → Calculate interest in user 's Airbnb service.	User-friendliness
	Number of Airbnb use	Accommodation rental / booking data on Airbnb → Calculate interest in user 's Airbnb service.	User-friendliness
	Airbnb re-booking rate	Guest's Airbnb re-booking rate data for the same accommodation → Calculate interest in user 's Airbnb service.	User-friendliness
	Airbnb Refund	Refund rate of guest's Airbnb reservation → Calculate service reliability.	User confidence
	Airbnb Reviews	Analyze the host / guest postings and keywords → Calculate the interest and reliability of the Airbnb service.	User-friendliness

MCC Reliability Measure

If Data Consumers need a better approach to customers' credit scores, they can utilize the Trust Data generated from the MCC ecosystem. Trust Data takes account alternative data, such as individuals' spending patterns, social media activities, etc. Based on the two types of Trust Data mentioned above, MyCreditChain adds one more unique feature, Reliability Measure Data of the Seed Networking, to the MCC data set. The advantage of using the MCC Reliability Measure is that corporations can get the information that reveals individuals' interpersonal networking. In addition to the alternative data, it becomes a valuable measure of credibility. This unique feature of the Reliability Measure will make the Trust Data highly desirable from corporations with or without their own credit rating models.

This model is particularly effective to assess 'Thin-filers' that have insufficient credit information, and 'the Unbanked,' who cannot use banking/financial services in any capacity. By using the differentiated credit rating method from those offered by existing credit bureaus, MyCreditChain can provide credit scores for those without formal CB data.
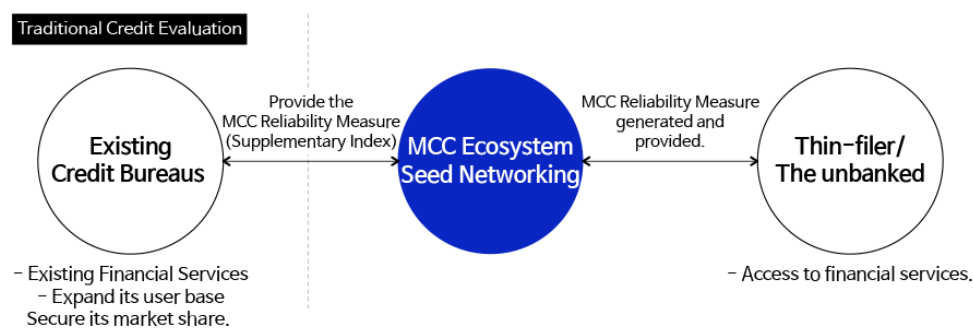
**Picture 9. Creating and utilizing MCC Reliability**

MCC Seed Networking is a gift-giving mechanism. The Seeds is used a medium of gift-giving by which an individual's reputational profile is revealed. It makes the data generated from the Seed Networking unique and differentiate from any other data in the current market.

[Attachment] MCC Seed Networking and Reliability Measure

Trust Measure produced in the MCC Seed Networking reveals individuals' social interaction and reputation within the platform. MyCreditChain has filed a patent application for this unique mechanism. The team from the Seoul National University Industrial and Mathematics Data Analysis Centre is currently conducting a research that interprets the potential value of the Seed Networking Data.

MCC Seed Networking

What will happen if a lot of beads are put on the checkerboard and shake it? We might expect that it would show a normal distribution. It is often called the 'Gaussian Distribution' or 'Normal Distribution'. This is the probability of casting the dice, the average score of the test or the distribution of people's height. However, the actual computer simulation results are different from the normal distribution.


Normal Distribution   Boltzmann distribution
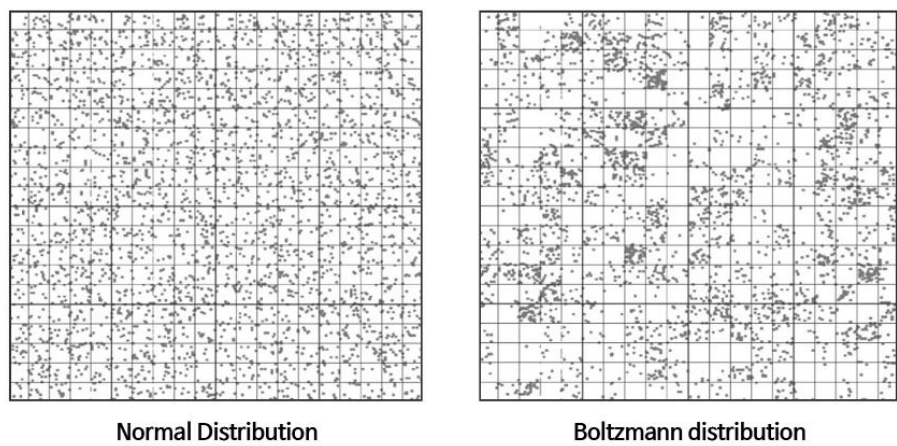
Picture 10. Normal distribution and U distribution
Data no miezaru, 2014, Kazuo Yano, soshisha Publishing Co. Ltd

This result is similar to the 'Boltzmann distribution' and it can be used to model an individual's trust level in a group in which constant exchanges of information are occurring. As in the U Distribution, certain clustering occurs. There are members clustered and members that are alienated from the clusters. Our assumption is that clustered members are more reliable. This assumption is based on the experience of Grameen Bank micro financing. We have come up with a few ideas to further increase member grouping by gift mechanism. The information acquired from Airdrop Seed giving can be used to analyze the trust level between individuals in a his/her group. It can generate a new confidence index of a person from the analysis of gift giving and receiving. This is where MCC Trust Measure is created.

MCC Seed Networking Flow

Every individual within the MCC ecosystem is given three seeds at 00:00. They can be given to anyone in and out the MCC network. Seeds can be given to anyone in phone address book, via social network. The seeds are to give and build relationship.
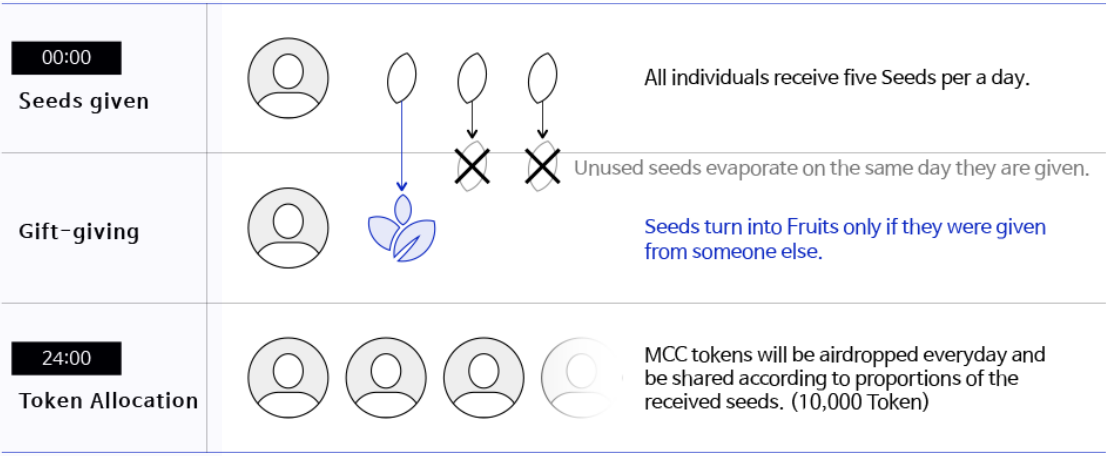
Picture 11. MCC Seed networking system

The seeds have no value unless they are given to some else. The Seeds turn into the Fruits only if they are given from someone else and the fruits will be exchanged to MCC tokens, medium of exchange in the MyCreditChain ecosystem.

MyCreditChain's token distribution system was inspired by Charles Eisenstein's 'Sacred Economics.' Eisenstein argues that the transaction was originated from 'gift.' According to the author, 'gift' is the circulation of surplus and exchange through money is the circulation of depletion. The concept of 'seed gift' is drawn to build the surplus circulation of trust by the act of giving gifts.

The instance of 'Seed Gift' demonstrates that modeling and quantifying to measure future reliability is possible through the analysis of clustering, density, social stratum, breakaway, etc. within the human network.

2) Gift Economy : Scared Economy, Charles Eisenstein, 2011

MCC Seed Networking Experiment Case

We have applied the concept of 'Seed Gift' to the actual companies for five years and confirmed that trust networks were established.
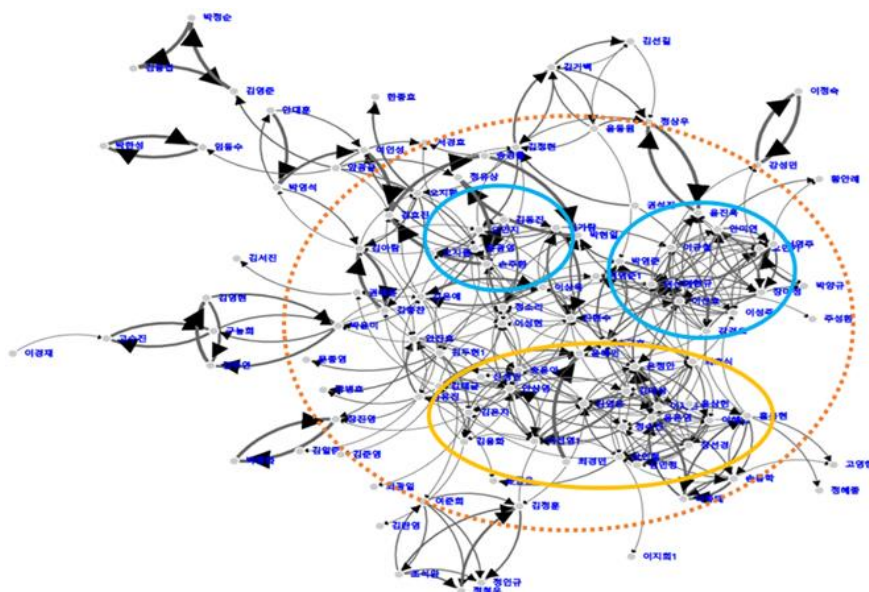
Picture 12. F_Company Seed Networking Experiment Case

1. It reveals personal relationship map of each user. People with higher number of seed gift are the people who are popular and liked by many. These people are influential and at the leadership position.
2. People with tight connection of giving and receiving are those who have developed a close relationship. There is a high chance that these people belong to a same community.
3. People connecting with distinctively different group can be a mediator and an influencer in the groups.

By tracing the gift circles among the users, interpersonal mapping surrounding each individual is possible. This information reveals the users' interpersonal connectivities and positions in their personal relationship. In addition to the personal credit information, it become a valuable measure of credibility. These measure, then, can be used as an effective marketing tool.

However, there is a possibility that few members can collude to profit one another. To mitigate the bias in such grouping, MCC will allocate the seeds to the tokens by applying the 10-days rule. If an individual receives the seeds from the same person within 10 days, the conversion value will be decreased. This can be summarized in the following formula.

Sender : S (5 per day)
Receiver : R (no limit on the number of recipients)
When Ri is the interval from date received to Sj : $d(RiSj)$,

Total gift Number of seeds : $seed(T)$

$$seed(T) = S11+S12+S13+S21+S22+...Sn3 = \sum_{i=1}^{n}\sum_{j=1}^{3} Sij$$

Total fruits recieved : $fruit(T)$

$$fruit(T) = \frac{1}{(10/d\,(S1R1))} + \frac{1}{(10/d\,(S1R2))} +...+ \frac{1}{(10/d\,(S1Rn))} + \frac{1}{(10/d\,(S2Rn))} +...+ \frac{1}{(10/d\,(SnRn))}$$

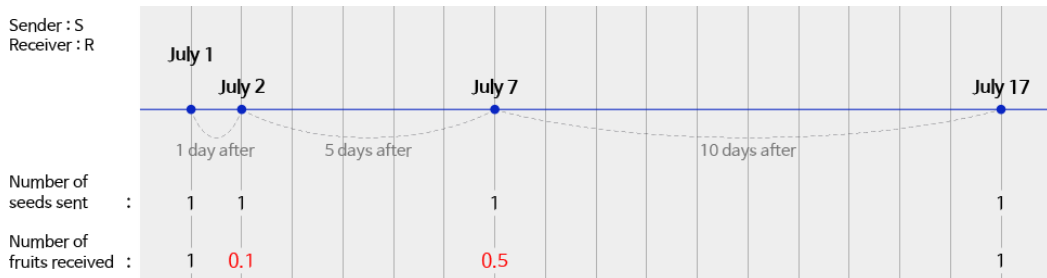$$= \sum_{i=1}^{n}\sum_{j=1}^{n} \frac{1}{(10/d\,(SiRj\,))}$$

Number of fruit Ri received : $fruit(Ri)$

$$fruit(Ri) = \frac{1}{(10/d\,(S1Ri\,))} + \frac{1}{(10/d\,(S2Ri\,))} +...+ \frac{1}{(10/d\,(SnRi\,))} = \sum_{j=1}^{n} \frac{1}{(10/d\,(SjRi\,))}$$

The total number of seed networking tokens (per day) : $token(T)$

The number of tokens Ri should receive : $token(Ri)$

$$token(Ri) = (\,token(T)\,/\,fruit(T)\,) \times fruit(Ri)$$

Sender : S Receiver : R	July 1										
		July 2			July 7						July 17
		1 day after	5 days after				10 days after				
Number of seeds sent :	1	1			1						1
Number of fruits received :	1	0.1			0.5						1

Picture 13. Seed fruit conversion ratio

MyCreditChain – Cooperation with Seoul National University for the Advanced Research on the MCC Seed-Network.

MyCreditChain and the Seoul National University Industrial and Mathematics Data Analysis Centre have conducted a research to graft mathematical theories onto the blockchain and digital financial industry.

With the 7 years of the Seed-Network experiment, we have come to a conclusion that trust networks between individuals can be presumed. This unique quality of Seed-Network data, then, can be utilized for various functions.

To maximize the potential of MCC Seed-Network, MyCreditChain has carried out an advanced research. Further information will be shared via the new version of the whitepaper.
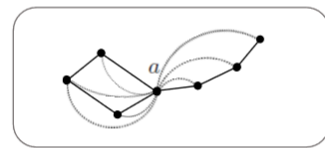
Degree Centrality
- Number of nodes and adjacent nodes
- deg(a)
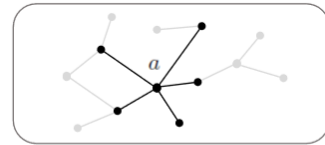
Closeness Centrality
- The reciprocal of the sum of the distances between each node and another node

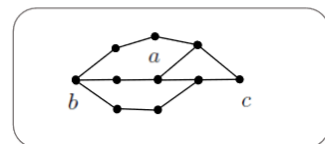- $CC(a) = \dfrac{1}{\sum_{b \neq a} Dist(a, b)}$

Betweenness Centrality
- Number of cases for paths between each node

- $BC(a) = \sum_{b \neq a \neq c} \dfrac{\sigma_{bc}(a)}{\sigma_{bc}}$

- σ_{bc} Is the number of paths between b and c
- $\sigma_{bc}(a)$ Is the number of paths containing a

Picture 14. Excerpt from 'Network analysis using Centrality' report

MCC's Seed-Network (Patent Pending)

2.3. Use Case Scenarios

The following is the examples of Personal Trust Data transactions by types and actors in MCC ecosystem.
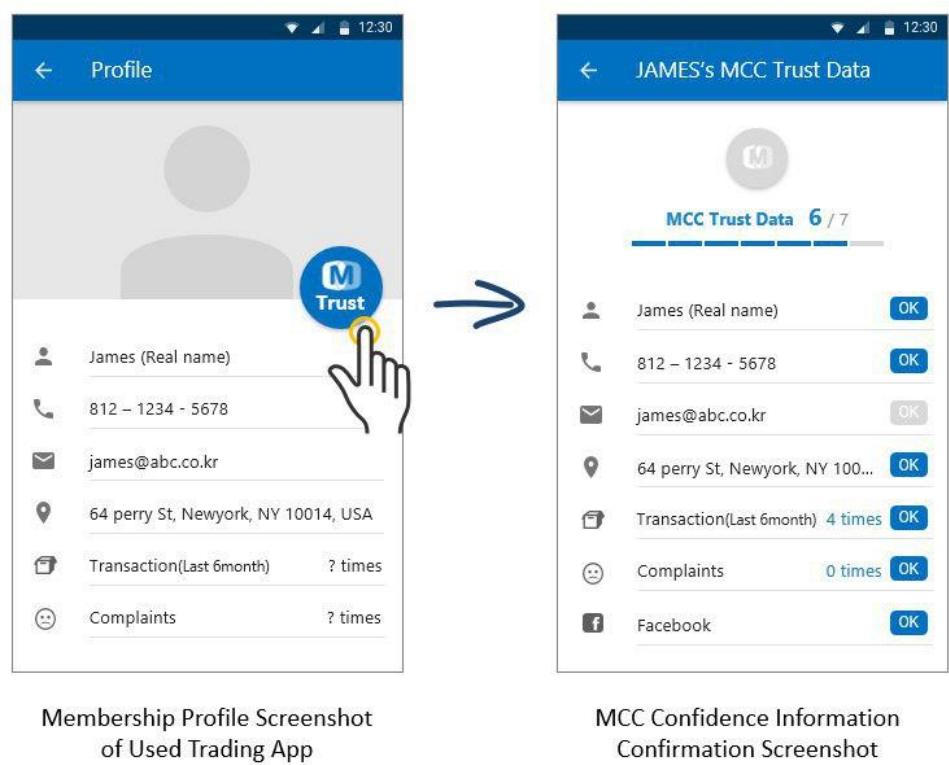
2.3.1. General Trust Data Transactions

Marketing

1	**Buyer**	Company H is a car company and decides to collect potential customers information on the MCC platform to promote its new car.
		Considering the price and purpose of the new car, company H sets the main customer target on mid to late 40s males with further details on the income level, the vehicle preference, activity orientation, and the family size.
		Company H pays 1 million tokens and requests information on 1,000 MCC users fitting the profile.
2	**Seller**	Mr. A, who is an MCC subscriber, receives a notification from MCC app requesting his information for promoting H's new car.
		He is selected as one of the information providers for H's new car promotion, and confirms that he agrees to provide information for 1,000 tokens.
		After confirming the type and content of the information he will provide, Mr. A provides his consent and gets notification that 1,000 tokens are received in his wallet.
3	**Buyer**	Mr. B working for the company H receives a notification that the information of 1,000 potential customers fitting the profile is collected via MCC, accesses to the MCC network, and delivers the obtained information to the company H's public relations team.

Survey

1	**Buyer**	A city registered a survey on the MCC platform to ask citizens' opinions about the municipal library operation hours to change from the current 10 am to 9 am.
		All the MCC participants in A city are set to be surveyed, and in the survey, the number of times and purpose of the library use, the desired hours of operation are included, and the age and job information of the respondents are requested as well.
		A city sets up to provide 500 tokens per survey and requests a maximum of 1,000 replies.
2	**Seller**	Ms. B, who is an MCC subscriber, confirms that she will receive 500 tokens when she participates in a municipal library operation hour survey in the MCC app.
		Ms. B participates in the survey after confirming the type and contents of the information she will provide and provides her consent.
3	**Buyer**	A city is able to confirm that the final 826 questionnaires were completed at the MCC, and 413,000 tokens are paid to obtain the survey result.

2.3.2. Packaged Trust Data

Membership Profile Screenshot
of Used Trading App

MCC Confidence Information
Confirmation Screenshot

Picture 15. Example of the Second hand trade service using MCC trust Data

1	Online Used Goods Marketplace Manager	Customer Service manager D decided to introduce the MCC trust information provided by the MyCreditChain feeling the need for customer identities (trust) due to a large number of recent fraudulent transactions.
		The App uses the API that can retrieve the MCC trust information.
2	App User (Seller)	Mr. A wants to use the app service to sell his digital camera that he does not use.
		When uploading the sales article, Mr. A confirms and agrees to the terms of "providing his MCC trust information," and registers the sales article.
3	App User (Buyer)	Mr. B decides to buy the camera that Mr. A put on.
		Recently, there is a lot of cases of fraud in used goods trade. Mr. B reviews Seller A's profile information and wonders whether it is legitimate.
		Mr. B can view A's MCC trust information by selecting 'MCC Trust' button on his profile information screen.
		Mr. B is convinced that Mr. A is using his real name, finds his contact information and that there were four recent transactions, and that he is not a fraudster. Mr. B contacts Mr. A and completes the transaction.

2.3.3. Trust Data with MCC Reliability Measure

1	Lender	Company A, which runs lending business, decides to collaborate with the MCC by adding credit information from MCC to the company's existing credit evaluation information when evaluating a loan to expand target clients and reinforce its loan risk management.
2	Thin Filer	Mr. B, a recent college graduate, visited a bank to receive a loan but was denied a loan because his credit score was low.
		Mr. B, who did not have any special overdue records, is in a state where he can not get a loan due to insufficient bank records or credit card records.
		Mr. B has applied for a loan of 5 million KRW together with his MCC Trust information, knowing that A company's loan service is based on the seed networking activity data (trust index) of MCC.
3	Lender	Company A examines Mr. B's existing credit information and added MCC trust information, and confirmed that the probability of overdue within 1 year is less than 1%.
		Company A approaches Mr. B with a loan of 5 million KRW at 5.9% annual interest rate.

2.3.4. Trust Data from Seed-Network

1	MMCC member (A)	The employee A was talking with his colleague B and learns that if he became an MCC participant, he could get seeds and get the MCC token.
		A installs the MCC app and completes self-certification process. He notices that there is MCC 'seed networking' service that can present 3 seeds to friends a day in the MCC app.
		A presented a seed with a text message to another colleague Mr. C who was usually very helpful.
2	MCC member (C)	Mr. C checked the seed gift message sent by A and clicked on the seed gift URL included in the message.
		MCC app is installed on the C's smartphone, and one seed sent by colleague A is received.
		C adds Colleague A to 'nearest co-worker' group and gave him a seed by selecting 'reciprocate'.
		In the 'family' group, he sends one seed to his brother and another one in the 'close friends' group.
3	MCC member (A)	A week after signing up for MCC service, A is notified that 56 of the fruits were collected in his MCC mobile app.
		A applies for conversion of 56 fruits to MCC token. After two weeks, 56 fruits were converted to 55 MCC tokens with 1 fruit used for conversion fee.

2.3.5. 3rd Party Participation

Storage

1	Storage Supplier	Company A has applied for an IPFS node operator to provide 4,000 GB of storage space to the MCC ecosystem. It installs a software for MCC IPFS connection, sets KYC document and compensation MCC token address, and sets up company's storage server environment.
2	Storage Supplier	Company A manager verifies the storage usage by the MCC ecosystem from the MCC eco-system administrator mode, and the corresponding token is compensated to the company.

Data Collecting Service

1	Data Collection Technology provider	A company in Singapore has a scraping technology that collects information from Singapore IRS web page. Company A decides to provide the technology to the MCC ecosystem as a third party and to register the development source.
2	Data Verification Technology provider	Company B, located in Vietnam, is a company that has proven its ability to collect technology from the MyCreditChain and its corporate credibility. Company B has analyzed the scraping source provided by Company A and verified that it is normally collected.
3	MCC Ecosystem	After confirming the verification result, the MCC Foundation approves the use of the Singapore IRS scraping technology.
4	Data Collection Technology provider	Company A get verified for scraping usage from the MCC ecosystem and was rewarded with 500,000 MCC tokens.
5	Data Verification Technology provider	Company B receives 40,000 MCC tokens from the MCC ecosystem for verification of the collection technology.

Data Analysis Provider

1	Data Analytics Company	Company A decided to provide its alternative analytical model to the MCC ecosystem. Company A applied for registration of the analytical model to the MCC ecosystem.
2	Data Buyer	Company A applied for registration of the analytical model to the MCC ecosystem.
3	Data Analytics Company	Company A verified the number of times the analysis information was used in the MCC ecosystem and received 220,000 MCC tokens.

3. MCC Token Economy

3.1. Definition of Token Economy

An MCC token is an encrypted currency that maintains the MCC ecosystem.
The value of an MCC token is based on the total value of the information, the number of participants, who provide the information, and the frequency of transactions.

The cryptocurrency in MyCreditChain consists of 'seed', 'fruit', and 'MCC token'.
The "fruit" is used to pay for services and information used within the MCC ecosystem, as well as for transactions between individuals.
When the fruits are accumulated, those fruits can be converted into MCC tokens once they reach a certain amount.
Each participant is also given five seeds each day, which can be used as a gift to other participants.
The seeds that are given as gifts are converted into fruits after a certain period of time.
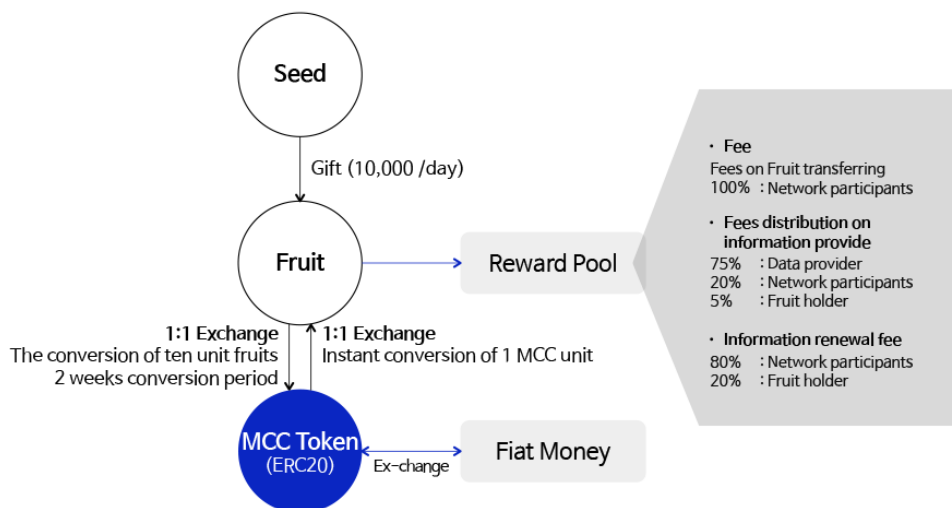
Picture 16. MCC Token Flow : Seed Fruit Token

| Seed	MCC seed networking will be presented to others, and the seed transmission / reception history will be used as data to generate the confidence index. The seeds that are given as gifts are converted into fruits under certain rules.
Fruit	It is a 1: 1 ratio to MCC tokens and is an payment instrument for transactions, services and information within the MCC ecosystem.
MCCToken	It is an ERC20 based token and can be converted to a 1: 1 ratio with the fruit.
Reward Pool	Collected from transfer fees, information sales commissions, and information handling fees, the accumulated fruits are redistributed according to the contribution of the MCC ecosystem participants.

3.1.1. Retrieving Policy in MCC Ecosystem

For the activation of the MCC ecosystem, Silvio Gasell's theory of 'extinction money' is applied. By recalling tokens possessed by non-active participants in the MCC ecosystem at a certain rate, it induces active circulation of the Tokens among the participants and creates a environment for valuation of the tokens that individuals possess. While Silvio Gasell suggested "hold" tax on currency, the MCC ecosystem will implement a monetary rule on policy of retrieving tokens based on participants' inactivity.

Participants who do not have a seed gift or a token transaction for a month in the MCC ecosystem will collect 10% of their possessed fruit (fruit and tokens are exchanged 1:1). However, the fruit to be recovered is limited to those distributed through seed networking. This policy will be applied to all MCC ecosystem participants. The recovered fruit is reused for seed networking within the MCC ecosystem. This encourages tokens to be actively used and encourages circulation.

3.1.2. Stability of MCC Token

In the MCC network, the P2P Daily Airdrop and token retrieval policies[3] are applied at the same time, and we expect that the total number of tokens will gradually stabilize over time. When the number of tokens in circulation converges to a certain volume as inflationary P2P airdrop and deflationary token retrieving policy act against each other. N, the token volume, will converge to a certain volume as the time passes.
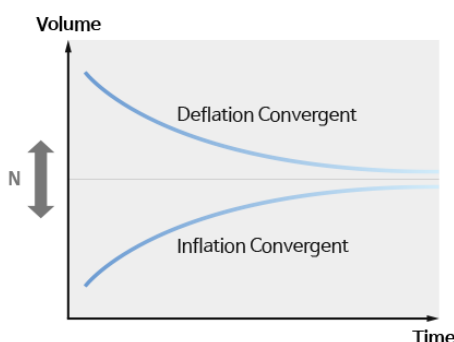

Picture 17. Stability of MCC Token

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3) [The Natural Economic Order] – Silvio Gesell

3.2. Token Mechanism

MCC tokens is a medium of exchange and incentive for economic activities within the MCC ecosystem. Tokens can be exchanged for cash (Fiat) via the exchange or used within the MCC ecosystem.

The MCC ecosystem provides its own economic structure and additional compensation system for the token's natural flow.
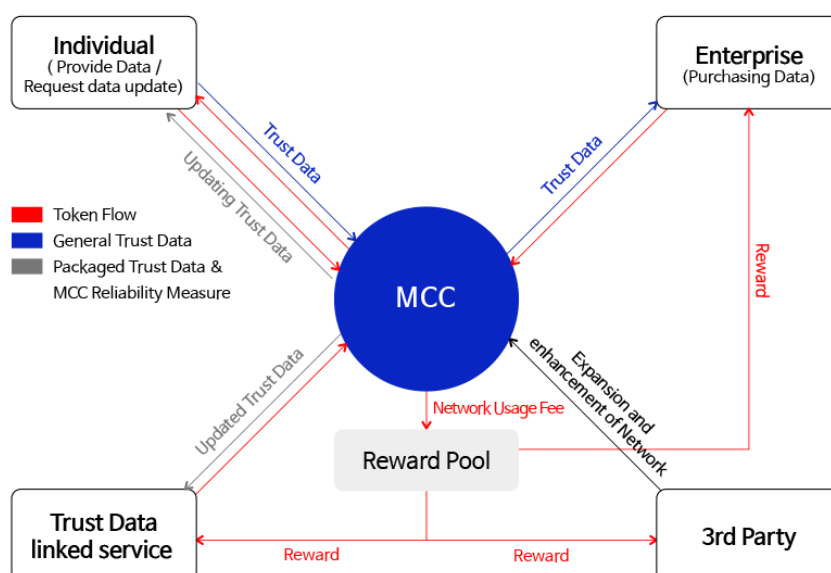
Picture 18. Distribution and Redistribution of Trust data according to MCC Token flow

The tokens received by individual participants in exchange for information can be converted into cash through the exchange and thus have their own economic value. Individual participants can update their trust information by paying tokens to use affiliate services such as loans and financial instruments.

MCC Foundation deposits some of fees incurred in the information exchange in Reward Pool. The deposited token may be rewarded depending on the contribution of the participants to the MCC ecosystem.
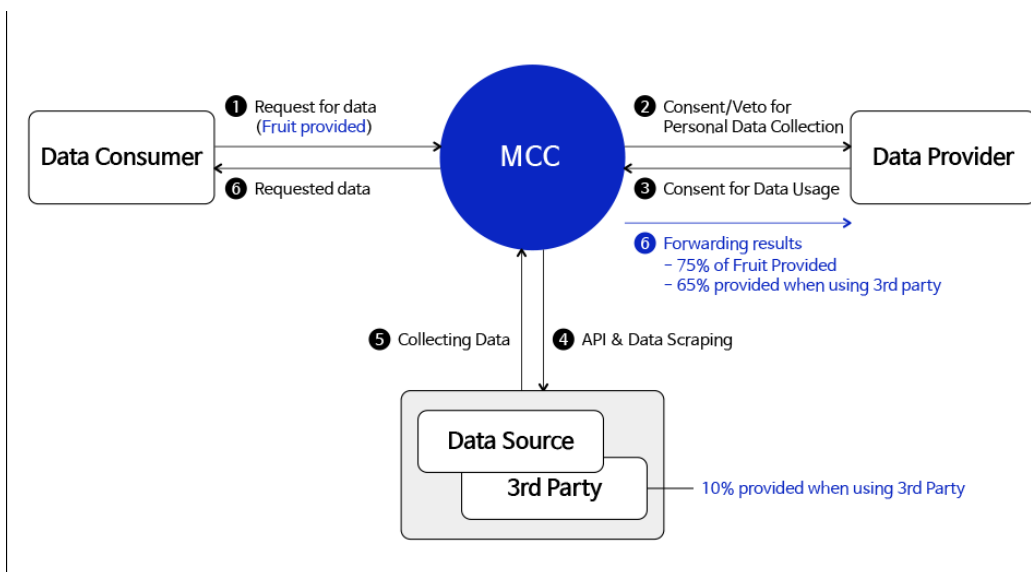
Picture 19. Token Flow of data provider and buyer

It is the process by which a company requests data in MCC ecosystem. When a company requests personal data, MCC network collects data from social media, telecommunication companies, public institutions, financial institutions, etc., with individual's approval. If data analysis is needed, you can request the analyzed / processed data from 3rd party. In this process, the information buyer pays to the individual and the tokens are shared between the MCC ecosystem participants and the individual.

It is not always the companies that request data. Individuals may need trust information in the MyCreditChain. For example, if a bank opens an online branch in MyCreditChain and sells a loan product, it may ask individuals to provide personal credit information. In the shared economy, trust information of the service providers will be used in various ways such as the home owner's information for Airbnb and driver's information for Uber. The figure below describes a process where an individual submits his / her trust information.
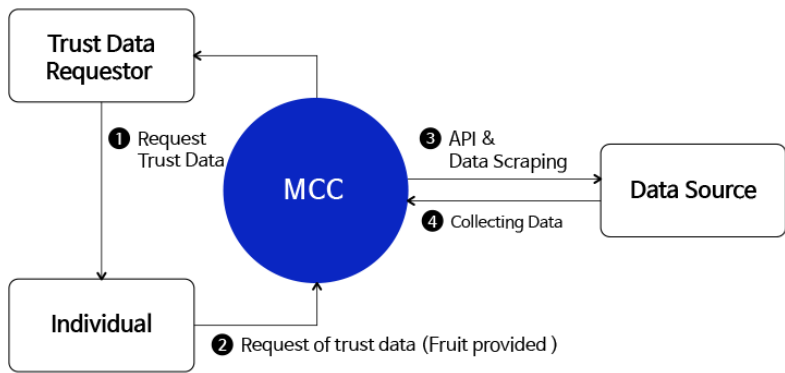
Picture 20. Token flow according to update and provide Trust Data

This token structure reveals why companies that need personal trust information and must purchase MCC tokens and that individuals must also purchase or keep tokens according to their needs.

3.3. Vitality in MCC ecosystem

In order to activate the token economy, it is necessary for the participants in the MCC ecosystem to engage in active transactions while encouraging them to use the service in the long term.

The participant is compensated with the Fruit first instead of MCC token which can be immediately cashed in the exchange. In fact, the virtual currency circulated within the MCC ecosystem is fruit. When dealing with Fruit, there is no need to worry about the gas price of Ethereum.

Also, each participant has a structure that takes part of the profit each time a transaction is issued. Distributes 20% of the fee to participants who contribute to the development of real hardware, storage and data collection. A fee of 10% will be provided for third party participants. For holders with fruit, a 5% commission will be settled daily.

The criterion distributed to the fruit holders is the fruit, not the MCC token, which is distributed at the rate from those with at least 10 fruits. Also, in order to prevent the adventitious phenomenon caused by the distribution of more fruits to the users having a lot of fruits, a preventive measure such as a difference in the distribution ratio according to the quantity of the fruits will be provided and a sound ecosystem will be maintained. The detailed policy will be established through the test results and the policy will be finalized after the agreement of the participants.

MCC Ecosystem Participants and Incentives

MCC Network	3rd Party	Fruit holder
20%	10%	5%
Blockchain Node Operator IPFS Node Operator API & Scraping Script Provider	For service use	At UTC+0, Daily distribution

4. Technical Overview

The MyCreditChain is an information distribution platform that provides personal data and Trust Data.

This system uses automated collection technology based on personal agreement and encrypts it to ensure secure information distribution. In addition, blockchain is applied to ensure the safe control and direct compensation on personal information provided.

Currently, many blockchain projects do not show proper business model. However, in MyCreditChain, a hybrid way of off-chain and on-chain is designed so that MCC will become a practical service.

It is possible to guarantee the data response time through the hybrid platform in MyCreditChain. It will also enable standard data download / upload support using MCC ecosystem Data-storage (IPFS) and will not charge a separate storage fee to the individual.

It will provide an interface for the active participation of the 3rd party and it can be easily linked with the organization having the personal authentication system. The MCC ecosystem will be an important platform for the sale of their technology and data.

MCC ecosystem inter-system interface, inter-network encryption, transaction management, security, and data integrity will be designed with the know-how of team members built through years of experience in banking system construction and will be developed with system stability and scalability.

4.1. System Overview

The MCC ecosystem is a system for collecting and analyzing personal information, providing ownership on personal information, and generating new trust information, using blockchain to build the trust ecosystem described above.

The collection, storage, and delivery of personal information are performed on the user's consent. The data is encrypted and stored in the distributed data storage, IPFS, and the trust information transaction history (user consent, transaction purpose, transaction compensation) is supplemented to provide the stability and reliability of transactions. It provides various technologies (scraping, Open API, etc.) for collecting trust information, and provides an analysis model for trust information analysis.

The biggest issue at this point in blockchain is transaction speed and maintenance cost. In the MCC ecosystem, blackchain is divided into on-chain and off-chain. The on-chain is now running MCC tokens on Ethereum, and the off-chain minimizes the cost of trading of trust information while maximizing transaction support.
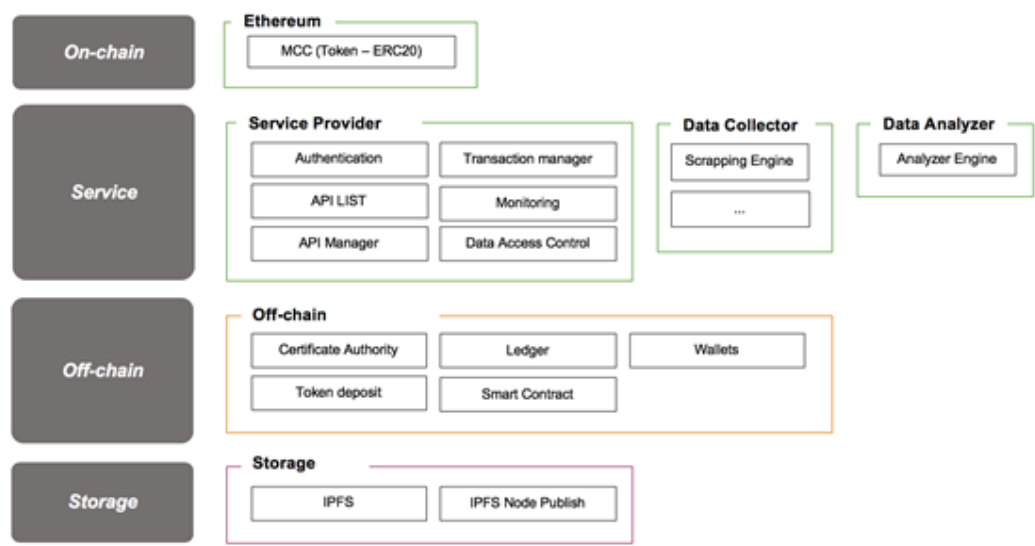
Picture 22. System layer

4.1.1. Blockchain

MCC platform is composed of the on-chain and the off-chain. At current level of blockchain technology, it is an indispensable choice for smooth service configuration. Block size limitations, processing speed issues, and maintenance costs (eg, inert gas) are major issues on the maintenance and growth of the MCC ecosystem. In order to minimize this, we selected Ethereum as an on-chain main net for token distribution and constructed off-chain blockchain for trust information transaction and scalability. The off-chain candidates are examined among existing blockchain systems (Ethereum private, Hyperledger fabric, etc.) and will be decided on a blockchain that is most suitable for implementing the MCC ecosystem.

Ethereum is a blockchain with built-in Turing complete language that takes small and infrequently applications and interaction with other applications. It creates smart contracts and distributed applications to create arbitrary rules of ownership, transaction types format, a state transition function.

Off-chain means storing data outside the blockchain. Therefore, the solution proposed from the off-chain perspective seeks to reduce transaction details by utilizing off-chain network without increasing the block size. In addition, the maintenance cost and the processing speed of the transaction should be taken into consideration, so that the service can be performed as desired, and reliability of the transaction of the trust information should be secured.
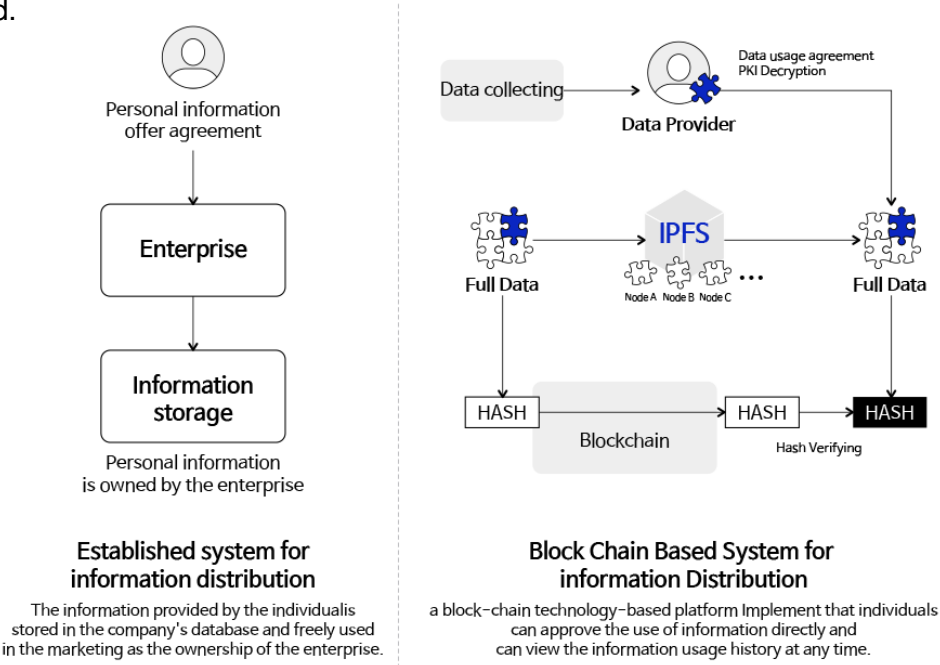
Picture 23. Block Chain Based System for Information Distribution (Right)

4.1.2. IPFS

The Inter Planetary File System (IPFS) is a P2P distributed file system that tries to connect all the computing devices to the same file system. It provides a content addressed block storage model and has a structure that can manage the high speed and its version. In the MCC platform, it plays a role of storing important information that is difficult to be stored in a personal device due to its size.

The IPFS system will be operated by the node operator. MCC will make sure to check the basic conditions for authentication and node operation through the MCC node operator system and give incentives to the service providers.
In the MCC ecosystem, anyone can freely participate in IPFS node operation through node operator authentication, and the node operator is compensated for the node operation according to MCC policy. All collected data is encrypted and stored in the IPFS, and is provided only on individual approval.

4.1.3. Data collection

Data managed in the MyCreditChain are collected using technologies that has the advantage of collecting data from various organizations in real time. The data collection technology implemented in MCC is scraping, DRM parsing, API, etc., and it is possible to collect information through the device owned by the individual. The target organizations that can collect data may vary from country to country, but they include public institutions, financial institutions, telecom companies, and social network data.

In this white paper, scraping, one of the main techniques of collection, is described in detail.

What is scraping?
Scraping is a technology that accurately extracts the necessary information by collecting data that is displayed on the Web.
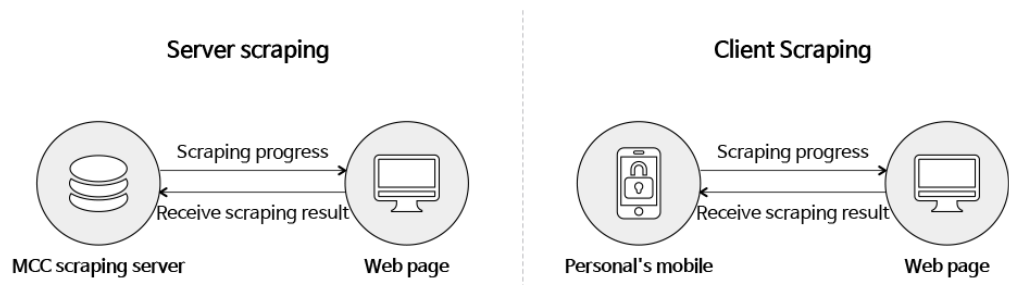
Picture 24. Two methods of scraping

The MCC ecosystem uses two scraping methods as shown above.

Server Scraping

It will be mainly used for open data such as public data, and it will be collected for analysis of background data such as group or real estate belonging to individual. It is used when you need a lot of information or periodic collection.

Client Scraping

It is a method used by the information provider to collect data that can be retrieved from a mobile web page after login. For example, you can view the account balance and transaction history of the Internet banking web page, view tax payment history, and view the health examination history.
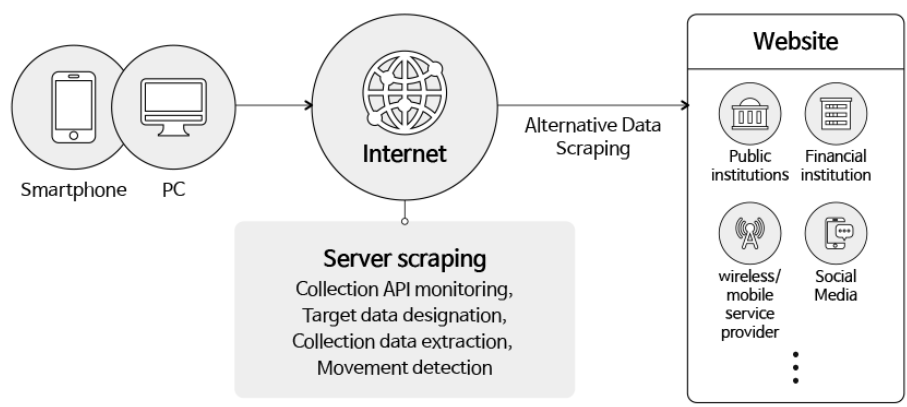
Picture 25. Scraping scheme

The MCC ecosystem uses the protocol scraping method. Another collection technique is browser scraping.

The reason for using protocol scraping is as follows.

① In case of communication protocol, scrambling transmission/reception data directly through HTTP communication module.

② Since there is no extra resource consumption other than HTTP communication, more than 80% resource is saved.

③ Independent of environment setting of browser.

④ It can be maintained without modification of application due to development and maintenance of scraping separated from UI.

4.1.4. Data Analysis

The MCC trust information is analyzed based on evaluation method applying various big data variables incorporating inter-personal confidence index data from seed networking. The analytic engine that generates the MCC trust information is built on mathematical techniques to search for data and finds the relationship between hidden patterns and information in the data, thereby creating new customer value. In addition, MCC's analytical system can utilize the Big Data platform that has been expanded or built in conjunction with existing infrastructure through the participation of third party companies.
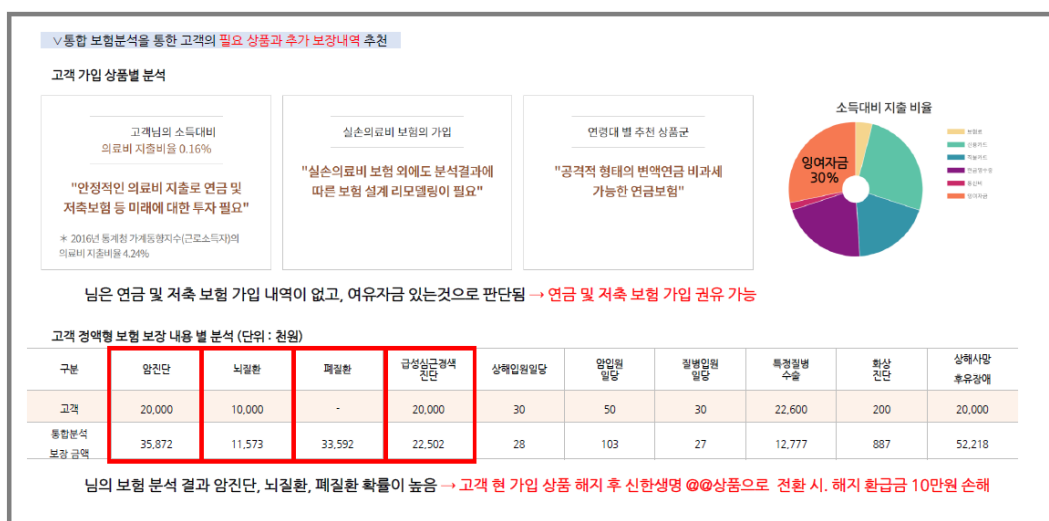
Picture 26. Product recommendations using Big Data Analysis

Personal Trust Information Analysis

The inter-personal confidence index generated from seed networking reveals the individual's trust among its peers, and is an original trust measure uniquely provided by MyCreditChain. The MCC trust information can be used to assess creditworthiness of people with insufficient credit history, and it can be used to identify the creditworthiness of customers by small-scale financial institutions without its own credit rating models as well as existing large banks.

4.1.5. API

The API Layer standardizes access and authentication protocols to ensure free participation and activities of financial institutions and third parties. MCC is designed with Open API structure to ensure network performance and scalability.

The collected and analyzed data is designed in such a way that the consent of the information provider gives authorization to the information buyer and data is provided via the separate API provided by the MCC ecosystem. Information request, data collection, and provision are all performed in real time, and the procedure is simple. MCC will provide a convenient user environment for information buyers and information providers.

4.2. Scalability

The MCC platform is currently designed on Ethereum, but it can be run on other blockchain platforms in the future. The type of data managed on the MCC platform is divided into personal identification information and main contents. The personal identification information is stored separately from the main contents of the data. MCC data protocol provides a standardized format through separate APIs for various 3rd party participation.
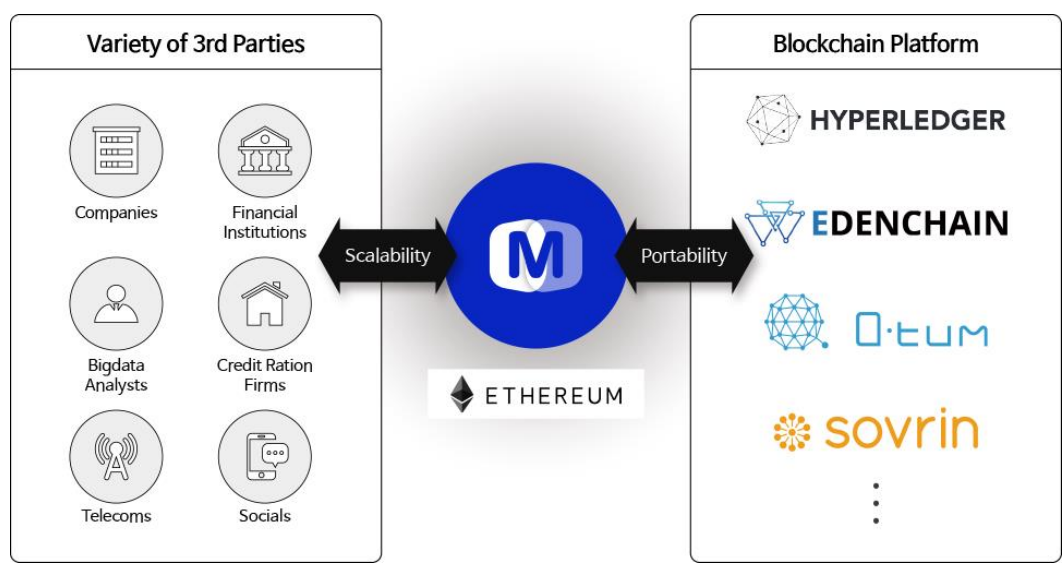
Picture 27. Scalability

4.3. Security

All data in the MCC ecosystem is encrypted and archived, and the scope of encryption includes the transmission and reception of data. In the case of collecting / storing data, decryption is performed through a security module, and encryption is performed using an encryption key for each personal device or each user. In addition, MCC registers / manages the device ID (PC-> mac address, smart device-> device id) for the service subscriber so as to restrict the use of the service unless it is a registered device.
For security of personal information and collected data, a vaccine for detection and treatment of viruses is applied from the information input stage, and an obfuscation solution and keyboard security module are provided to prevent information leakage In advance.

Data Access Control

Information collected on the MCC platform is managed and controlled by Data Access Control for security. The data is kept encrypted so that only the information provider and the authorized information buyer can read it, and the viewing period for the data buyer can be set so that it can cope with data security more effectively.

The MCC ecosystem will apply data security technologies from creation to disposition of personal information. Data security will be focused on identification of participants(login), authorization and consent, and each channel (PC, Mobile, Dapp, block chain, IPFS). Another dimension in security is flexibility required to cope with different regulations around the world.
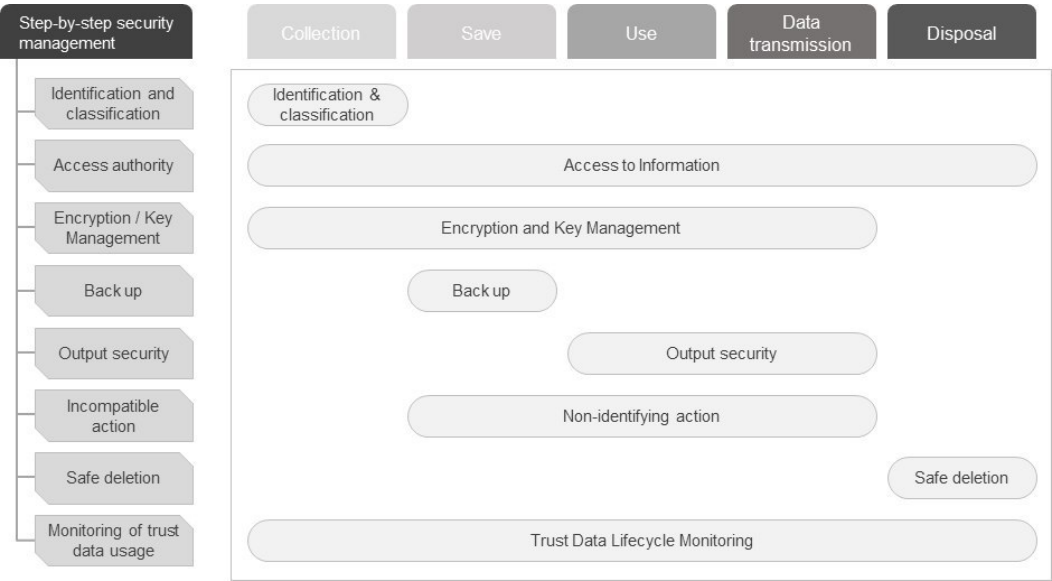
Picture 28. Trust data Lifecycle and Security Management

5. Roadmap

■ Business Roadmap
■ Technology Roadmap

2018.6.

● **Token Sale**
Private Sale/ Pre-sale

MVP #1
Blockchain + IPFS

End of Token Sales ●
Issue Tokens / Distribute Tokens

2018.10.

MVP #2
Data Collection / Processing

2018.12.

● **1st Stage Service Launch**
Sign Up/Seed Network
Member Expansion events
Listing on Token Exchange

Dapp Launch
iOS, Android
Seed Networking
Wallet Development

Service Enhancement ●
Form Seed network Ecosystem
Excavate Seed Network Parnerships
3rd Party Alliance

2019.3.

Dapp Update
Develop Seed Network Affiliations

2019.6.

● **Excavation of Data Platform Partners**

Dapp Update
Launch Data Platform

Expand Service Partnerships ●

2019.8.

Dapp Update
Enhanced Data Platform

2019.12.

● Dapp Update
Develop MCC Trust Index

Dapp Update ●
Main Blockchain transfer and
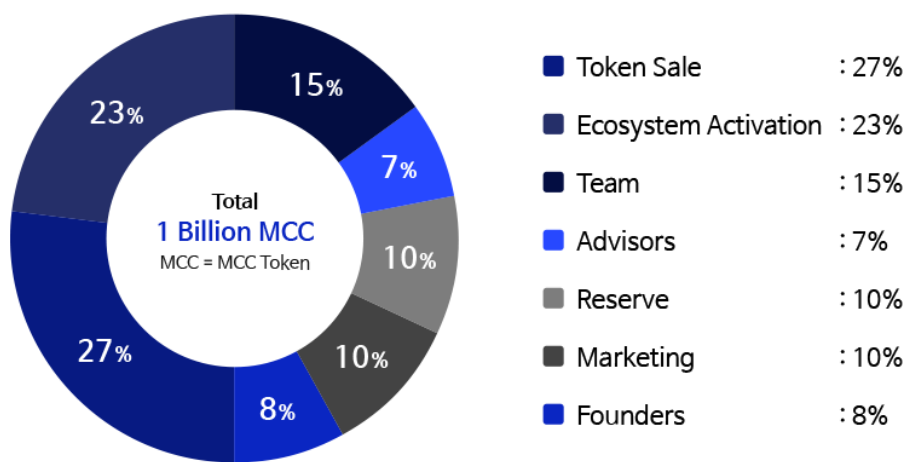Review Development

2020.2Q.

6. Token Sale

6.1. Token Distribution

MCC will issue MCC Tokens that complies with the ERC20, a standard token of Ethereum. MCC token is a means of exchange in the MCC ecosystem and will be used in all exchange activities within the network. The total number of MCC Tokens is 1 billion, and there is no further issuance of tokens. Among the total tokens issued, tokens for P2P Daily Airdrop for the ecosystem management is set aside for more than 30 years and will be stored in MCC foundation immediately after issue.

MCC Token is paid to network participants in the form of an Airdrop every day. Tokens are used for updating personal information, purchasing information and attracting node operations. When there is a request of information from the information consumers, tokens are used for rewards to the information suppliers. Financial institutions can advertise their financial services in MCC network using tokens. They can conveniently provide product recommendations and attract loan applications, or they can provide their own credit information provision and attract document submissions using tokens.

Token Sale	: 27%
Ecosystem Activation	: 23%
Team	: 15%
Advisors	: 7%
Reserve	: 10%
Marketing	: 10%
Founders	: 8%

Picture 29. Token Distribution

MCC designates 23% of all tokens for the successful ecosystem activation.

27% for Token sale,15% is set aside for MCC Team, 8% for founders, 7% for advisors and 10% for marketing activities. Specially 10% is reserved for the purpose of the additional system upgrade and development.

The hardcap is ETH 25,000, and the softcap is ETH3,000.

Tokens that have not been sold at the initial participant token sale will be stored in the Reserve Pool for a period of one year. If the stored tokens are not used for one year after the ICO is completed, they will be incinerated.

Information related to the sale of MCC Token will be announced on various channels including MCC homepage.

7. Disclaimers

This white paper is intended as a reference to provide the information being planned by MCC team.

The content of this white paper can be amended later on, and if it revised, it will be immediately notified through its webpage, blog, etc. MCC team will not guarantee and is not legally responsible for any issues relating to this paper.

Regarding the legal binding force, our current white paper briefly stated that "We do not guarantee anything related to this white paper and will not be legally responsible for it." , but we encourage you to specifically revise it as follows. This white paper is intended as a reference to provide the information being planned by MCC team.

The statements and information contained in this white paper are forward-looking statements and information, therefore, such forward-looking statements and information are uncertain as to inclusion of known or unknown risks, and the actual results may differ materially from results expressed by the white paper or the results of participant's guessing through the statements in the white paper. This white paper has no legal binding effect on MCC team and its participants. This allows MCC team to modify, add or delete a part of the white paper at any time for any reason. Once it changed, modified, added or deleted, it will be published on MCC team webpage, blog and others.

This white paper does not provide a guide to investment, legislation, taxation, finance, accounting, regulation, and it also not intended to drive MCC token purchases, sales, or provide a basis for trading. Before purchasing MCC tokens, investors must aware the potential benefits, possible burdens and other disadvantageous consequences through consulting with regulatory experts regarding investment, legislation, taxation, finance, accounting, and regulation. This white paper is not a plan to issue securities, nor is it an encouragement to invest or purchase securities. Accordingly, the participant should aware that MCC token does not represents securities and that the white paper is not for issuing securities, nor is there any form of dividend or voting right for MCC token. Please note that MCC team do not bear compensation for any form of loss, liability, or other financial damages caused by the use of this white paper by investors.

MCC tokens must not be provided, distributed, resold or transferred to any citizen or corporate entity (limited participant) in the area where digital token transactions are prohibited or restricted by law or policy. MCC team may either reject a request to buy MCC token at any time if the information, provided by the participant attempting to purchase it, is insufficient and inaccurate, or if the buyer is assumed to be a limiting participant. Transaction could be prohibited, restricted, cancelled, and invalidated whenever a participant purchase MCC token on an illegal or unauthorized route. Determine whether MCC token can be legally purchased in a buyer's area and whether MCC token can be resold to other buyers in particular area is responsible for MCC token purchaser, not for White paper. All responsibilities incurred by the restricted participant's intervention is upon the participant and the person who distributed, resold, and transferred to restricted participants.

8. Terms

Personal Data	Personal data is any information that relates to an identified or identifiable living individual. Different pieces of information, which collected together can lead to the identification of a particular person, also constitute personal data.
Trust Data	Trust Data refers the data generated within the MyCreditChain platform. Trust Data, verified its reliability and applicability by MCC, reflects a multi-dimensional depiction of an individual's trustworthiness, which can be utilized for various purposes.
MCC Trust Measure	Trust Index derived from the MCC Seed-network, which reveals individuals' social interaction and reputation.
The Unbanked / Thin-filer	The unbanked: adults do not have enough data to evaluate their credit scores. Thin-filers, people with little credit information, are alienated from the proper accesses to finance. These people, without or lack of the traditional credit data, are deprived of financial benefits, and end up living in a circle of poverty.
Credit Information	Credit Information is the information with which a credit bureau evaluates individuals through its own evaluation criteria. It is the basis for economic interaction among people in a society.
Credit Evaluation	Financial institutions manage the risk of their loan products and price the risk premium for insurances based on individuals' credit evaluation.
Seed	The Seed is used as a medium of gift-giving in the MCC Seed-network. Seeds themselves do not hold any value unless they are given from someone else.
Cryptocurrency	Cryptocurrency is a digital asset designed to work as a medium of exchange that uses strong cryptography to secure financial transactions, control the creation of additional units, and verify the transfer of assets.
Alternative Data	Alternative Data refers to the data, excluding the traditional credit data, used to obtain insight into a person's creditworthiness.
Fruit	Fruit is a medium of exchange within the network. They can be converted into MCC tokens. (1 to 1 ratio. Ex, 1 Fruit = 1 MCC) Seeds turn into Fruits only if there are given from someone else.
MCC Seed Networking	The MCC Seed-network is the gift giving and receiving activity in which all individuals are incentivized to build a social network. This unique feature of the MCC Seed-Network can be utilized for various purposes.
MCC Ecosystem	MCC Ecosystem is a fair-ground of Trust Data market where individuals get fair compensation for the consent they provide for their data, and corporations can get access to massive potential consumer data.
MCC Token	MCC Token will be issued on Ethereum ERC20 standard along with MCC Smart Contract.

Building Trust
with Your Data

HOMEPAGE	https://MyCreditChain.org
BLOG	https://steemit.com/@MyCreditChain
FACEBOOK	@MyCreditChain