A Cryptocurrency Platform used for payments, rewards and transactions of online and mobile services





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# 1. Introduction

## Problems of the Reward System

As we enter the era of digital business, the industrial paradigm is gradually shifting from manufacturing to the service industry, and economic initiative is shifting from suppliers to consumers. Consumers pursue emotional consumption to experience products and services, rather than rational consumption that values quantitative advantages such as price and performance. In this era where the user's experience is made much importance of, the membership service, as the closest customer contact service related to the user's experience, is continuously evolving into a customer-oriented integrated service that influences customers' perceptions.

While using many services in our daily lives, users are already registered to reward programs in any shape or form. As mobile app market grows recently, users often purchase a product, or a paid for item in game or app with the mobile coupons or points accumulated by looking at advertisements of diverse reward applications, or by downloading applications which also serve as business marketing tools. Furthermore, the reward point services are recently evolving into a '2nd currency' combined with electronic payment and other means, beyond simple marketing for loyal customers. However, each point can be used only within the service that offers the rewards, and when such a service is deleted or unused, the reward points also disappear, so the user's points cannot be assured. In this way the rewards earned by users who have invested time and effort easily disappear and lose their value with the passage of time.

# Problems of the Payment System

The market for simple payment and remittance services that requires only simple authentication such as passwords without an accredited certificate is growing. Although the scope of transactions - such as online and offline commerce - and the expansion of the digital economy are being globalized and going online, methods of payment have scarcely developed beyond legacy system of banks and financial network operators. Furthermore, the legacy payment system has a high commission rate due to the application of foreign exchange rates among multiple operators such as credit card companies, PG (Payment Gateway), VAN (Value-Added Network), banks, and countries. And the terms between the times of payment and settlement of legacy system make businesses less profitable.

# **Expansion of Application of Mobile Contents using Blockchain**

While actively attempting to apply blockchain technology to mobile services, numerous new businesses that are striving to connect blockchain and virtual currency for contents such as music, photography, and streaming are emerging one after another. This has led to raised expectations that the mobile contents market, which is easily accessible by the public, will create a successful, new business model in combination with blockchain technology.

The game companies that have already experienced monetarization of items in games are paying attention to blockchain technology, and they are discussing how to use virtual currency when selling game items or game usage records by utilizing blockchain technology. There is also the prospect that blockchain technology will open up new possibilities in the content production and distribution areas, such as videos or digital sound sources. The following are examples of attempts to apply blockchain technology to diverse content areas.

- Game: Game items or game records can be saved in blockchain technology and exchanged for virtual currency.
- Video: Video creators can be directly connected to users, and users can pay a fee in virtual currency to video creators.
- Digital sound source: The creators of sound sources can be directly connected to users so as to maximize profits from the copyright.
- Broadcasting streamer: Viewers can offer virtual currency as a gift to individual streamer.
- Blog: Creators who write on blog-type platforms can generate profit, while blog users who read their postings and leave comments can receive a reward.

## **Our Pending Issues and Suggested Solutions**

Even within our internal services, we have been operating our own reward systems according to service targets and characteristics. Although cross-marketing is conducted between our company's services, reward points are integrated and managed only within some services, and the rest are separated for each service. Our loyal customers want to use the points that they have accumulated by using our service to pay for other services. We think that a cryptocurrency, which enables reward, transaction and payment services through the blockchain, is an ideal solution to the problem of linking reward points among



services. Legacy points are deleted in due course of time, but reward with a cryptocurrency can increase its value over time and can be converted to other currencies and traded.

The MCH aims to provide "a cryptocurrency platform that is used for payments, rewards and transactions on online and mobile services" in everyday life, by establishing a method of solving problems related to the connection of rewards between services and existing payment services.



Figure 1. MECON CASH's Connection with Blockchain



# 2. MeconCash Business Platform

# A Cryptocurrency platform used for payments, rewards, online transactions and mobile services

Based on the MeconCash Platform, we are striving to create a platform where users' assets can be transferred and traded between different services by integrating a "point-based reward system" that is disconnected between the existing service and a developing service, and contents purchase and payment systems. To that end, we aim to build a reward and transaction system, develop an API (Application Program Interface) that can be linked with other services, and establish an ecosystem that can be used in the online and offline real economy so as to guarantee the usability, connectivity and continuity of MeconCash for the users.

We are developing a variety of mobile-based applications, games, and contents on the platform, and connecting various services including online shopping mall where users can buy products. In general, regarding the reward system that is only used for one service, when a service is terminated, its users' reward points become invalid. MeconCash converts a reward received from the service linked to the platform into an asset value. Even if a service has ended, the users' demand for a new service can be fulfilled with MeconCash. They can trade MeconCash between individuals so that it can be circulated in the system, which can be used in the real economy.

We are working to stabilize the MeconCash Ecosystem through various business developments based on blockchain, and are building a system that can be continuously linked to external services.



Figure 2. MeconCash Business Platform



# MeconCash Wallet

MeconCash Wallet provided on the MeconCash platform is a service that uses a cryptocurrency and includes a function which allows the MCH issued from the MeconCash platform to be safely traded. It is also an integrated wallet service that incorporates each reward created from the services in the platform into the MCH. The MCH Wallet also has a multi-wallet function that encompasses the coins' safe remittance and reception, security, the M.PAY payment service, cash withdrawal from ATMs, and linkage with other coins. In addition, it has an integrated platform function that offers users diverse services by linking rewards from games and shopping malls with M.PAY.



Figure 3. MeconCash Wallet

## **M.PAY Service**

M.PAY is a payment service that enables MeconCash and various coins to be used for payment, reward, and cash withdrawal online and offline. M.PAY and MCH are of 1:1 equal value. M.PAY is a simple payment service that accepts the blockchain-based cryptocurrency 'MeconCash' for payment and is currently used in daily life in connection with various services.





Figure 4. M.PAY Utilization Areas

#### Users

- Users can use their cryptocurrency for various services through M.PAY.
- Users can easily use the platform, without installing a different wallet for each cryptocurrency, by linking with various cryptocurrencies.
- Users can freely select and use any integrated cryptocurrencies in their daily lives.

#### **Coin Companies**

- MeconCash Wallet's multi-wallet service offers a wallet for each coin.
- Coins can be converted into M.PAY according to the current exchange rate.
- The converted M.PAY can be used in connection with all services including games, APPs, ATMs, and Shopping Malls in the MeconCash Ecosystem.
- Avoiding the unnecessary developing a similar system for each coin company, services for real economy can be offered to the members.
- The M.PAY conversion and settlement record will be provided for each coin company.







#### Affiliates

• The influx of users of various cryptocurrencies will be made possible by increasing coins' linkage.



Figure 6. Influx of affiliates' members

- Sales will be increased by acquiring new M.PAY members through converting users of various coins to the M.PAY system.
- A simple payment service is available through the QR code in MeconCash Wallet.
- A M.PAY exclusive POS terminal will be provided, as well as a management service for detailed M.PAY account statements / settlement for each merchant.
- Merchants will not be influenced by fluctuations in market prices and the settlement will be carried out within one to three days.



Figure 7. Affiliates' payment and settlement process



## **Digital Contents Service**

Users of digital contents (games, APPs, etc.) in the platform will accumulate reward points, which will be converted into M.PAY which can be used for all the services in the MeconCash Ecosystem.

The MeconCash Platform will provide a function to safely save and transfer contents users' assets for reliable transactions without any intermediaries by applying the principle of "simultaneity" to asset transactions.

We design the system in such a way as to allow users to save their assets, which used to be saved in the application or the game service's internal database, into an external database, namely, blockchain, so as to move or trade the assets of users of a different game or application with other users.





# MeconCash Reward

All users using the service can receive MeconCash as a reward for purchasing, advertising and using contents through the service. The earned MeconCash can be used as a method of payment for all our services and will become a member's asset.

• Users will receive the MCH rewards through various ways, including by clicking on advertisements, play rewards, and attendance rewards.



- Users will consume the MCH when using the paid services, including desired contents, items and features.
- Users will perform a transaction or purchase a product by sending their MCH rewards to the integrated wallet.
- Advertisers will pay the advertising expenses with the MCH. The MCH paid by advertisers will be offered to the users as a reward.
- The MCH will be safely transferred and saved through the integrated MeconCash wallet.



Figure 9. Service Rewards

## e-Commerce: Shopping Mall

The Mecon Mall (www.meconmall.com) is an online shopping mall of the MeconCash Platform using M.PAY, a MCH cryptocurrency payment method, along with the existing payment methods, to pay for diverse products. It enhances users' convenience by accepting combined payments by credit card, banking, and M.PAY, and saves some points earned from product purchases as M.PAY.

The Mecon Mall also provides an emoticon message service that allows users to send a message to the person who will receive the product they have purchased as a present. This service provides the users with differentiated experience to create their own avatar and include a voice message with emoticons, in order to send a message that accurately conveys their emotions.





Figure 10. Mecon Mall's M.PAY Payment

### Multi-Wallet Service

The MeconCash Wallet provides various cryptocurrency wallet services, and the supported cryptocurrencies can be converted to M.PAY in accordance with the trade price between MeconCash and a given cryptocurrency. Thus, all cryptocurrencies applied to M.Wallet (Multi-wallet) can be used to pay for all the services in the MeconCash Ecosystem. Currently, we are continuously performing a strategic partnership with major coin companies through the following process.

- M.PAY linkage service with ERC-20-based tokens (June 2019).
- Expansion of M.PAY users by increasing the functions of the multi-wallet for the Ethereum-based and ERC-20-based cryptocurrencies (August 2019).
- Launch of the M.PAY linkage service through strategic partnerships with BCH (Bitcoin Cash, January 2020) and LTC (Litecoin, February 2020)
- Expansion of services through partnerships with domestic and overseas cryptocurrencies.





Figure 11. Multi-Wallet Service

## **External Service Interworking**

MeconCash provides a cash withdrawal service for coins saved to MeconCash and M.Wallet through the M.PAY payment service. Cash withdrawal is currently available at ATMs throughout Korea, and all coins linked to M.Wallet can be used equally after converting them to M.PAY.

M.PAY	전환		ATM출	금신	청			현금	인출	
С К МЕС МСН М.Рау М Му 85/288 АТМ 88.МРау 183.94449989 30.061.06 МУ - 106	DN CASH Walet MPay MCH MDPay MCH	МСН АІА УС 9 М.Р. 9 8 80 кон 8 84 кон	ATM 	<ul> <li>■ 3</li> <li>183.94449</li> <li>8485 3027 8</li> <li>000</li> <li>■ 410 mm</li> </ul>	200 원 989 M. Pay 30 만원 500 만원 1,500 원 844만5 1000위					0
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전 전	22		0							
C			C	$\mathbf{)}$		J				

Figure 12. Cash Withdrawal Service at ATMs



In addition, we have established a system that can be used to effect various offline payments for convenience facilities and medical services, and conducted a trial service, and we are now planning to provide the services in earnest.



Figure 13. POS Payment



# 3. Composition of MeconCash

# MeconCash Blockchain

MeconCash was originally issued as a Bitcoin-based cryptocurrency, but MeconCash2.0 uses the Ethereum-based platform, which uses the ERC-20 technology to guarantee the improvement of the transfer rate of the cryptocurrency and the transparent management of its transactions and assets.

#### Characteristics of Ethereum

Ethereum is a platform that allows users to create a Smart Contract in order to develop and distribute a DApp (Decentralized Application), beyond a role for currency.

Ethereum supports DApps, which are built based on the existing Ethereum blockchain. In return, Ethereum charges the developers for the network's computing power, which is paid for only with Ethereum, a cross-platform currency.

A smart contract is a computer protocol of the blockchain, which commands a project technically, and is equal to an unchangeable agreement on how transactions are approved according to the rules written therein. Smart contracts play the role of an escrow mechanism, which is basically objective.

Bitcoin can also be used to execute transactions beyond simple remittance, but there is a limitation to contain complicated logic, so it is somewhat limited in implementing any functions beyond those of a currency. In order to resolve such a limitation, Ethereum provides a complete language which can be used to calculate and implement transactions based on the concept of "Gas"; however, it prevents malicious operations by charging a fee to be only paid with Gas according to the amount of operation and memory used.

#### **Transaction Fee**

Ethereum is a platform, rather than just a concept of cryptocurrency, and ETH is used as a "fuel" to pay the Ethereum fee.

Ethereum fees, i.e. Gas fees, are incurred whenever there is a transaction. Such a transaction could consist simply in sending an ETH or ERC-20 token to another wallet, distributing a smart contract, or sending data or ETH to a distributed smart contract in order to operate it. At this time, the gas fee for the operators required to operate the



smart contract will be calculated according to how much Gas is used at the cost predefined for each operator. The operations are executed one by one while consuming Gas, and if there is no more Gas to use because the gas limit suggested by the sender (user) has been exceeded, all operations will be canceled, and/or cause an error, thus ending the transaction. On such an occasion, the consumed Gas will be deduced from the sender's wallet; therefore, it is important to make a transaction when the Gas Limit is given sufficiently not to be exhausted, in consideration of the quantity of operations for the smart contract. If any Gas remains because less than the actual limit was used, it will be refunded to the sender's wallet while the consumed Gas will be given to the miner who has verified and performed the transaction.

When generating such a transaction in the Ethereum wallet, the user can access the Gas price and item along with the aforementioned Gas limit. This is the value determined by the sender who has generated the transaction, like the Gas limit, and represents the amount of ETH to be used in all Gas units. In other words, it doesn't mean that as 10 Gas have been consumed, the user has to pay ETH equivalent to the price as the fee, but rather that the fee will be charged for the amount of ETH, which is equivalent to the amount calculated by multiplying the amount of Gas consumed by the Gas price determined by the sender. For miners who take commissions through this mechanism, they will try to get the most benefit for their time investment by prioritizing a transaction that entails a higher Gas price than others, even if the transaction that has to be dealt with more urgently, if the Gas price is higher, the transaction will be quickly included in the block in order to induce rapid confirmation.

As the ETH is too big to serve as the unit of Gas price, Gwei is used, i.e. 1 Gwei is equal to 0.000000001 ETH. For small denominations such as fees or micro-payments, the Wei (10-18), which is a similar concept to the "satoshi" of Bitcoin, is the smallest denomination of Ethereum, along with Kwei (10-15), Mwei (10-12), Gwei (10-9), etc.

#### GAS Commissions for MeconCash Wallet

To resolve the problem supposed to possess Ethereum to pay a Gas fee every time there is a transaction, MCH2.0 Wallet offers the following solution.

• There is no commission on internal transfers between MCH2.0 Wallets, and transfers are processed quickly and immediately.



• For MCH2.0 Wallet transactions with external wallets and other platforms, the MCH2.0 Wallet Node is liable for the Gas fee, while the user pays the commission fee with MCH. However, the fee for an MCH transaction is set by calculating the fee for Ethereum Gas.

## MeconCash System

#### Architecture

The MeconCash system is composed of the blockchain area, which saves smart contracts; a payment ledger; and the service area, which implements an actual service using the OPEN API and API that connect the blockchain area with the actual service.

The service area is operated in the form of individual services, but for the M.PAY reward and the payment, it is operated in connection with the API, and each service is integrated and operated in the management system.

The API (Application Program Interface) is a channel that offers various functions to be provided in the future, such as different cryptocurrencies linked with MeconCash, PoS API and reward API. It is used to introduce and link the 3rd party's MeconCash blockchain and to create their transactions.



Figure 14. Composition of the System



#### MeconCash Support Technology

MeconCash Open API is the service that provides the API offered for performing integrated membership management, rewards, transactions, and payment for the company's services, as well as service linkage with business partners.

The MeconCash Standard Open API will be applied in phases and continuously improved according to the development process of the self-service to facilitate connection to and use of the MeconCash Ecosystem. In addition, it will be defined separately and expanded according to the service characteristics of the business partners.

- API for MCH rewards linkage occurring in the service.
- Wallet API for exchange and transaction of MCH.
- API for MCH payment for paid contents services.
- API for integrated membership management.
- API for MCH's purchase and resale at the stock exchange.
- API for MCH-affiliated services.
- MCH payment module for MCH-affiliated services.



# 4. MCH 2.0 Token

MCH was originally issued based on Bitcoin, but it will be swapped 1:1 with ERC-20-based MCH2.0 to improve the transfer rate of the cryptocurrency, and to guarantee transparent management of transactions and assets.

Token Issuer	MeconCommunity Co., Ltd
Name of Token	MeconCash
Symbol of Token	МСН
Total amount of Token issued	1,000,000,000 MCH
Amount of Token burnt	700,000,000 MCH
Time of Token burnt	2020. 04. 08
Total Supply	300,000,000 MCH
Format of Token	ERC-20

Table 1. MeconCash Information

# Distribution and Burning of Tokens

MCH2.0 enables users to use their crypto assets as a simple means of payment and to receive rewards online and offline throughout the world. It aims to expand the payment currency into a cryptocurrency for cross-border payments with various payment methods and uses. Therefore, in order to expand the business, such as the roadmap for expanding the M.PAY payment service, which is a means of MCH payment, and the expansion of affiliates, an appropriate amount of MCH will be used as deposit funds. These deposit funds will be adjusted for circulation only according to actual demand in the market, and when the MCH's value as a means of payment is lost due to its excessive supply to the market.

700,000,000 MCH, 70% of total issuance, were burnt on April 8<sup>Th</sup> 2020 and its total supply has become 300,000,000. Adjusted supplies were redistributed according to the purpose of each issuance, and Table 2 below shows the purposes of each distribution and the quantity.



Category	Percentage	Quantity
Market Distribution and Circulation	70 %	210,000,000
Reserved for Business	9 %	27,000,000
Reserved for Security	7 %	21,000,000
Support for Ecosystem	6 %	18,000,000
Operation and development	4 %	12,000,000
Deposit for partners	4 %	12,000,000
Total	100 %	300,000,000

Table 2. Distribution of MeconCash 2.0 after Token Burning

#### Market Distribution and Circulation (70%)

This is the quantity allocated to distribute the amount held and circulated in MCH1.0, and includes the amount in circulation for App wallets and the stock exchange.

#### Reserved for Business (9%)

This is the quantity held by the company to prepare the capital required to implement the project. It is used for adjusting and redistributing the quantity of distributed tokens so that the project can proceed smoothly.

#### Reserved for Security (7%)

This is used as a deposit for the swap quantity and service reward required for the payment of multiple cryptocurrencies that are linked to the M.Wallet of the M.PAY system in the MCH2.0 ecosystem.



#### Support for Ecosystem (6%)

This is used to encourage affiliates and customers to use M.PAY, provide benefits through promotions, and utilize marketing materials to activate the ecosystem, when carrying out the project.

#### Operation and Development (4%)

This is the quantity allocated for operating and developing MeconCash for the performance of the project and is used in the generation of revenue through the business model of the MCH ecosystem. It is mainly used for the operation and development of MeconCash, and a certain percentage will be distributed to members, companies and team members who participate in the project.

#### Reserved for Partners (4%)

To carry out the project, we need to collaborate with various strategic partners. This is the quantity allocated to promote collaboration with various strategic partners. The quantity can be used for marketing through diverse channels, such as airdrops, through promotions of the relevant strategic partners, or it can be used as a variety of business models by partners affiliated with the company's service.



# 5. Roadmap

Based on MCH1.0, MeconCash has been implementing various projects and preparing technologies and systems for the expansion of its service and its business applications, and has grown through its listing on stock exchanges and the signing of partnership agreements at home and abroad.

Based on MCH1.0-based technology development and system know-how, MCH2.0 aims to stabilize the service of the M.PAY system, expand domestic and overseas service areas and affiliates, and establish itself as a global platform through overseas cooperation and connection. We will also focus on the utilization of MCH and M.PAY in the real economy by developing various services and functions.







# 6. Disclaimer

This white paper has been published in order to provide a business model and related technology information, along with information about MeconCash, which has various purposes related to the use of the platform by those who are interested in its cryptocurrency platform, which can be used for payments, rewards and transactions on the online and mobile services developed by the MeconCash Team for the MeconCash Project.

This white paper is not intended to encourage investment in the MeconCash project. Although we can take into account the opinions and feedback of MeconCash holders, we do not grant them the right to take part in decision-making related to the development of the MeconCash platform.

This white paper has been written based on the current status of the project at the time of writing. We do not guarantee the accuracy and/or appropriateness of any of its contents including the schedule and performance of the project planned in the roadmap for the future at the time of reading the white paper, and we do not accept any liability. For example, we cannot guarantee whether the project will generate profits or benefits; whether the white paper has been written on a legitimate basis without violating the rights of any third party; whether there are any errors in its contents; whether it has been written and distributed according to the laws of the country; or whether there has been any violation of the holders' national laws and regulations in the contents of the MeconCash Project explained in the white paper. In addition, the MeconCash Team's exemption from liability is not limited to the above examples.

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This white paper is subject to change according to the policy or decision of the MeconCash Team. Please use it only as a rough reference for your business plan and vision when conducting a project, and be sure to check the final details of the project against the final version of the paper.



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