



RICH CASH

RICH CASH COIN
WHITE PAPER



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RICH CASH Background 1

- A trend of Global Network Company has been changed from Off – Line marketing to On – Line. Off – Line structure that is distribution methods through contact between people has constraints of time and space. In order to globalize it and reduce expenses of time and space, On – Line marketing is adopted and network is expanded by On – Line Shopping mall, SNS, open market, social commerce, etc. It can break down barriers in areas and language. In other words, the network can make the world one.
- Although distribution has been developed in the era of globalization, payment structure isn't developed by regulation by each country and various fees. RICH CASH is born as payment method to solve it.
- RICH CASH is payment method where anyone can trade freely to be decentralized.
- World well-known major companies are jumping into cryptocurrency market. So, RICH CASH also establishes On – Line network company using cryptocurrency.
- A commission occurs as it is network structure. So, a branch by each district is needed because currency is different when sales and commission are paid. There is a company providing in dollars with no branch, but exchange commission is expensive and many uncomfortable situations are happened.
- Establishing a branch has a disadvantage of network marketing global business. But, sales and commission can be paid smoothly by regarding On – Line international cryptocurrency exchange as currency exchange with the world connected through internet shopping mall-based.
- RICH CASH will be an important medium gathering advantages of these two marketing.



RICH CASH Background 2

Split token trade will activate blockchain transaction of fundraising, crowdfunding, financial product. Installation process can be done through light client, and entry barriers to final users are lowered.

'Every conceivable application of blockchain technology will be tried, but P2P digital cash will remain most used application.' (Ryan X Charles)

We have already experienced availability and limit on money in distribution market, and know importance of finance in real estate development market. RICH CASH COIN perfectly performs a role of money in two markets and overcomes the limitations by using the method suggested by Nxt and Wave coin.

The limitations are as below.

1. Other than large capital, small capital is difficult to participate in fund.
2. If participating in fund, it is hard to monitor a project progress continually.
3. It is hard to guarantee transparency of income dividend procedure and dividend ranking can drop.

Difficult things in this part are as below.

1. Coin or token used in distribution and real estate development market needs to be isolated respectively. Because risk and a rate of return of these two markets are different.
2. Can coins using in two markets have complementary relation each other?

We solve these problems through Ripple and Wave and find usefulness of RCS through business plan.

- - Custom token creation, deletion and transfer
- - Decentralized token exchange, Bid and Ask network transaction are matched against each other.
- - It is possible to offer trading of one custom token against another. (asset-to-asset trading). This opens up a whole new range of opportunities, including trading against tokens tied to national currencies, thus replicating traditional trading infrastructures.



The need for RICH CASH

- Using main network token for value transfer is usual, but there are some problems. Seller carry heavy burden when using coins that are large variability and liquidity.
- In order to mitigate the volatility that prevents decentralized money usage as a store of value, the overall number of tokens used as currency should be limited (at least in the initial stages of the development of the technology).
- By explicitly introducing centralization into supporting blockchain national currencies , it means that new external financial institutions open Their role can expand liquidity of rtheir fiat assets and KYC/AML. Maintaining payment infrastructure is fully outsourced to decentralized blockchains.
- This approach to providing national currencies on the blockchain was pioneered with the CoinoUSD token on Nxt's blockchain. It is also similar to Ripple's gateways approach. We believe that such a strategy can compete with the emerging permissioned blockchains approach and attract financial institutions willing to work on open blockchains.
- We believe that blockchains are an effective means for managing most aspects of community-based projects, from financial to organizational elements. Blockchain technology cannot support high-frequency trading due to the innate latency. Centralized solutions will process high-volume transactions with milliseconds execution times. But it is not required. Blockchains provide a very natural environment. For example, for issuing crowdfunding tokens and managing financial flows within a community.
- If we consider a Kickstarter-like model of pledging certain amounts of money in exchange for a product to be released in the future, we can see its obvious limitations. A projector backer on original way cannot exit the investment in the project by selling it another user. On the other hand, this case is very natural using a blockchain-based system, RCS is easy to be swapped and transferred in blockchain.
- Issuing securities is highly regulated in the Financial Supervisory Service. Tokens can be compared with securities, especially if it is expected coin's value to increase or certain dividend to be paid. However, the blockchain is a regulation-agnostic instrument, comparing with securities, can be issued and traded easily.
- There is a reason why each person considers the value of coin differently.
- A value of certain assets is the amount, if maintain the assets, combining and estimated amount of cash flow during each period with interest rate for each period. Net profit by purchasing assets and maintaining can be expressed in a formula.
- IRR is Internal Rate of Return calculated for interest rate of assets obtained by you. This interest rate includes risk premium and the value can be different by the level how you prefer the risk.
- RCS gives stability by mitigating volatility of value.



RICH CASH On – Line Platform

- Global Network Company has a platform possible to do every work in internet shopping mall. In this internet shopping mall platform, purchase, refund, commission, etc, can be performed by using RICH CASH and paying RICH CASH. Moreover, difficulties and problems caused by different currencies can be solved by On – Line international cryptocurrency exchange platform where anyone can sign up easily, exchange transaction between countries can be performed easily, vision of margin and profit of market price can be actualized, it can be changed to home currency.
- RICH CASH realizes one big world market through On – Line shopping mall platform. Goods from each country are listed. Furthermore, through this platform, anyone can buy a product that is hard to buy due to inconvenience of process of purchase or difficulty although the product is good quality and popular. Cosmetics, healthy foods, beauty products(care), luxury items(vehicle, bag, watch, wallet, belt, etc) is listed on initial platform, and the range of fields is planning to expand. After buyer decides to purchase, payment will be processed. The shipment will begin from the country. It is easy for everyone to try.
- In addition, sales method is made for general consumer and network marketing.
- This platform gathers all items and all buyers into one market. Payment can be processed through RICH CASH.
- RICH CASH connects the world as a link.



RICH CASH Business Plan 1

- RICH CASH is used as key currency of global network On – Line shopping mall and members over 300,000 from various countries use it. Purchase and commission of items are processed only with RICH CASH.
- There are few coins that have members over 300,000 and traded periodically except for RICH CASH. So, RICH CASH is absolutely superior to other altcoins where used places are uncertain because RICH CASH has sufficient transaction volume and used places certainly.
Also, by gathering global network class and general class of On – Line shopping mall into one, market competitive power and consumer rights and interests are improved. It leads to an increase of member, and RICH CASH will have a structure to be the best in the world.
- Alibaba, Amazon and other internet shopping malls integrate the world by being able to distribute with no branch.
Of course, internet shopping mall doesn't need commission and can be used by visa or master card because it isn't network method.
- We make new marketing platform through advantages of these two marketing. the problem of sales and commission which need to be changed to home currency can be solved by RICH CASH.



RICH CASH Business Plan 2

- Pre-mining 1st issuance volume is 200,000,000RCS used for distribution market. By connecting with market price of goods used for trading, the intrinsic worth of coin will be kept. When consumers of our online shopping mall want to buy items necessary for them, they use RCS instead of cash. If RCS is over market price, airdrop will be performed to user holding RCS consistently. Through this practice, user holding coin can get a profit, coin price can be same as market price of goods. Shopping mall operation profit also leads to an increase of coin's value.
- Also, for real estate development market. It is distributed to the market considering investment size of real estate; it can be traded with each room of a building connecting with market value. In other words, the number of distribution coin depends on owner's capital necessary for the real estate development and within limits of profit caused by investment. We discuss this in detail in RCS Investment Property #1 business plan.
- Coin used in two markets will be with the first transaction management wallet to prevent a disturbance; exchange can be performed by authorization of the administrator.
- Coin through real estate development will be used for purchase of real property, payment of intermediary fee, rent, and management fee.
- If total investment price of Target investment real estate is 200,000,000RCS after certain period, real estate coin will be changed to a coin of specialty on real estate. And RCS is divided into a coin of specialty on distribution and on real estate and operated. The period is expected to take one to 6 months to 2 years.
- RCS for distribution market is aimed for listing; RCS for real estate investment is aimed for Private sale in principle, but it is designed considering mutual value warranty.



RICH CASH Business Plan 2

- Target Real Estate
- Business Name RCS Yeongdeungpo Studio Apartment New Construction Project RCS
- Location 121-3 Yeongdeungpo-dong, Yeongdeungpo-gu, Seoul
- District Type 1 District Unit(General Commercial)
- Land Area 237.92 pyung
- Floor Area 1,587.52 pyung
- Floor Area Ratio 590.41%(Expected)
- The number of room 1 room for shopping center 162 rooms for studio (138 rooms of 9.42 pyeong, 24 rooms of 11.37 pyeong)
- Total Sales 30,153,860,000
- Land Cost 9,000,000,000
- Construction Cost 8,173,897,000 Additional Cost 1,271,919,000 Public Charge and Tax 814,439,000
- Selling Expenses 2,850,646,000
- Preservative Registration 245,880,000
- Financial Expenses 2,525,385,000
- Business Profit 3,626,477,000
- Status of Sale in Lots Very Good

- Current Status
- Land Land contract completed Issuance of land use consent order
- Construction Irex Construction Corp. Twin Conconstruction Corp. have an intention to participate in construction. Calculating construction cost estimate. Bidding scheduled
- Finance Suhyup National Federation Yeoksam Financial Center, OK Savings Bank, Woori Bank have an intention to participate in debt-rescheduling program
- Trust Kukje Trust Hana Property Trust Mugunghwa Trust Korea Trust have an intention to trust. Collateral trust cooperating user agent will be carried out to reduce trust fee and financial cost(but, equity capital 5 billion conditions)

- Lotting-out Sales liability condition for 2 months (taking over total amount not sold). Thus, if you are interested in buying, please submit the letter of intent in advance.
- Plan Submit the proposal to Yeongdeungpo-gu Office on May 24. verbal consultation about licensing with the person in charge completed
- Start and Lotting-out Scheduled for October 2018



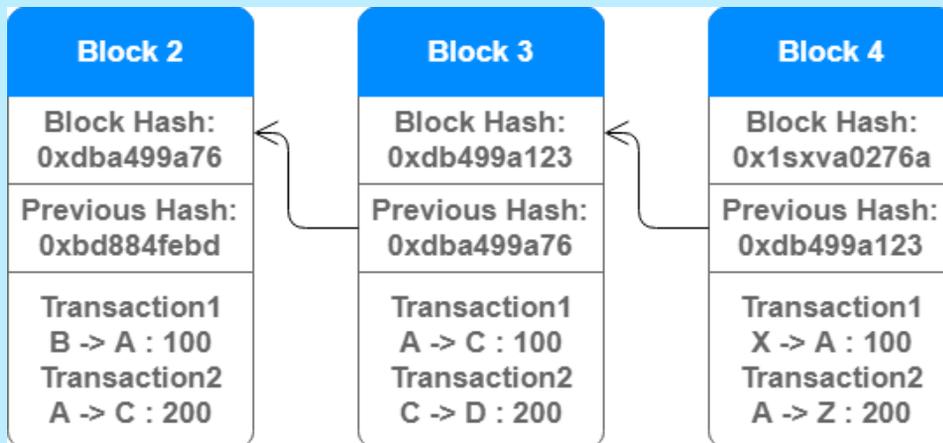
RICH CASH Network

Blockchain network largely consists of Blockchain node and client.

Node is in charge of storing and approving transaction and decentralized agreement and client is in charge of generating transaction and confirming transaction history.

Node has two kinds database, one is Blockchain transaction archive database where all valid transactions is stored, and the other is application database where stored transaction is applied to application. The first DB node has is designed by a unique structure named Blockchain.

The block which recorded transaction spreads through P2P network, valid block agreed in advance among many blocks follows previous block.





RICH CASH Proof of Work

RICH CASH basically adopt PoW consensus algorithm.

PoW is the process of finding cryptographic hash value where keccak hash function is used.

PoW of RICH CASH is similar to that of Bitcoin which is basically known.

However, the existing PoW has limitations of 10 minutes of block generating time and low speed due to mass transactions.

RICH CASH adopt GPU-based PoW by using **Keccak(SHA-3) hash function** to solve these problems.

Generation time between blocks of deposit coin for public mining is 5 minute, the amount of blocks is 288 blocks that are generated per day, incentive block is 40 RCS, and the maximum amount of mining incentive is 11.520 RCS per day. Difficulty is applied per 1 block.

The biggest feature of RICH CASH is a function of payment method, sets the maximum blocks per 5 minutes and incentive following block generation up in technical part to do public mining.

Generation time between blocks of mined coin for public mining is 5 minutes, 288 blocks are generated daily, block incentive is 40 RCS, the maximum daily amount of mining incentive is 11,520 RCS. The level of difficulty is applied for each block.

The biggest feature of RICH CASH is a function of payment method, the maximum number of blocks every 5 minutes in technical part, setting incentive following block generation

Generally, coins are all mined 100% as payment method, but RICH CASH is pre-mined only 80%, 20% of RICH CASH is for public mining. Users can participate through free mining other than coin that is used and distributed.

Total mining period of 220 million RCS that is pre-mined is around 52 years.

Incentive coin is 0 RCS from 0(the first) to 9th block,
incentive of 10th block is 880 million RCS.

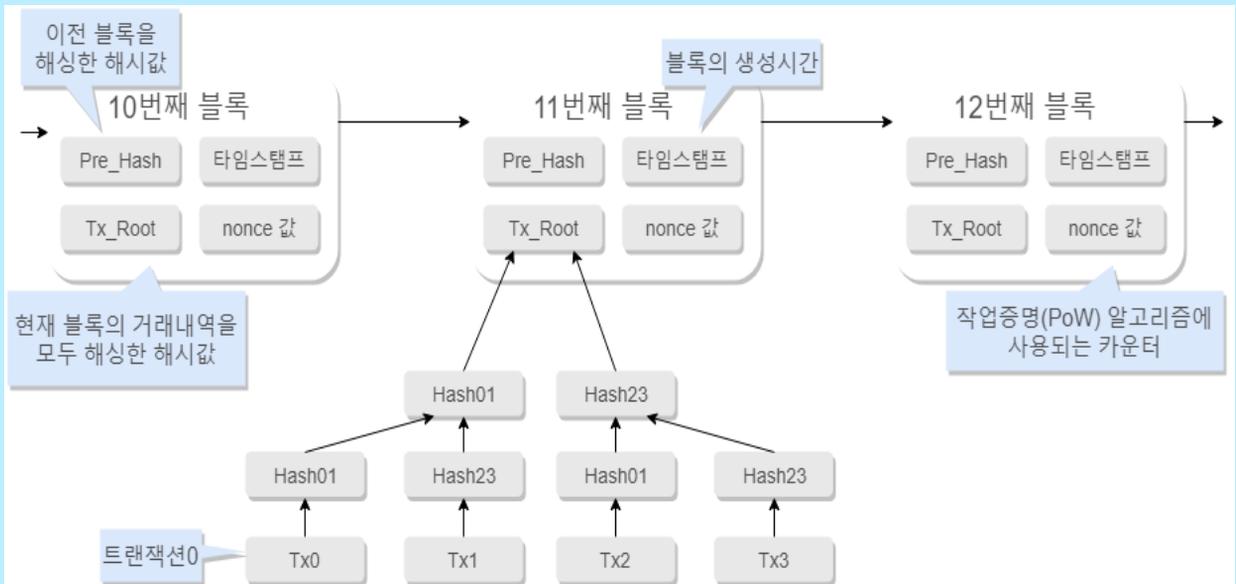
From 11th, incentive is 8 RCS per block and it is fixed.

When total mining coin reaches 220 million RCS (5,500,010 blocks), incentive coin will be 0 RCS per block.



RICH CASH Block Generation and Incentive

Block generation time of RICH CASH is within 5 minutes. 288 blocks is generated daily, block incentive is 40 RCS, and the maximum amount of mining incentive is 11,520 RCS. Difficulty per 1 block generation is adjusted upward and incentive is applied.





RICH CASH Encryption Algorithm

Hash function (SHA: Secure Hash Algorithm) among crypto algorithms is essential that is used in various fields of security such as message integrity code, electronic signature, etc. After SHA-0 had been presented in 1993, SHA-224, SHA-256, SHA-384, SHA-512 affiliated with SHA-2, which is a modified SHA-1, were presented.

SHA-1 is the most used among SHA functions and is used for security protocol and program such as TLS, SSL, PGP, SSH, IPsec, etc.

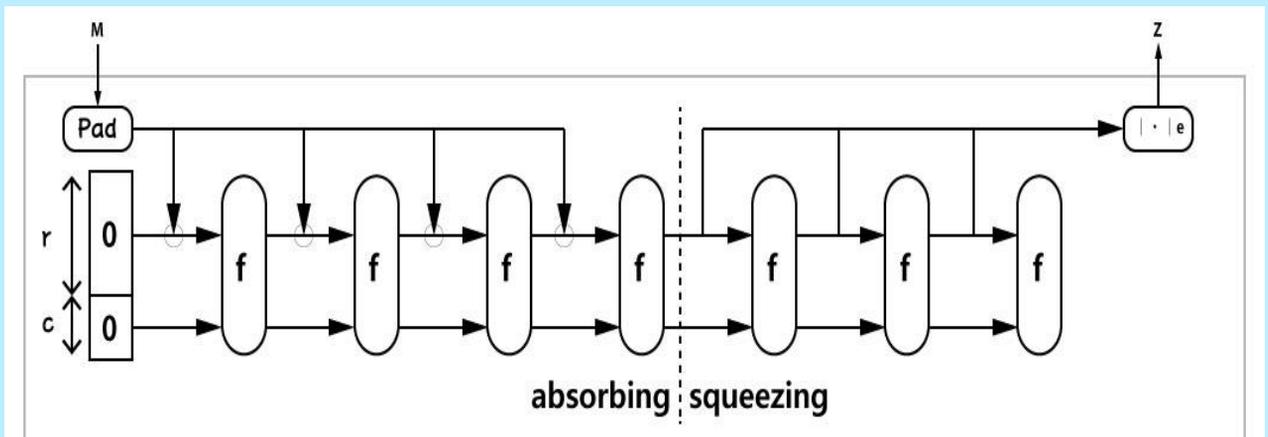
SHA-1 is used in place of MD5 which was widely used. However, SHA-2, which is not much different from SHA-1, is in danger of being attacked at any time due to attacks on SHA-0 and SHA-2 occurred, discovery of the vulnerability of MD5. Bitcoin uses SHA-256 which is classified as SHA-2.

This is SHA-3 to prepare for this.

SHA-3 is a hash function which was presented by National Institute of Standards and Technology(NSIT) in August 2015.

Keccak was finally selected as the next SHA-3 hash algorithm through comparing and analyzing 64 cryptographic algorithms submitted in a contest for 5 years to complement the vulnerability of existing SHA-1, SHA-2 hash algorithm.

SHA-3 consists of 4 hash functions SHA3-224, SHA3-256, SHA3-384, SHA3-512 and 2 extensible output functions SHAKE128, SHAKE256, and is called sponge function because it has a sponge construction.



SHA-3의 스폰지 구조



RICH CASH Sponge Construction

SHA-3 that has a sponge construction outputs message digest by using padding function with padding message and a function with permutation of bits. b bit is defined as $b \in \{25, 50, 100, 200, 400, 800, 1600\}$, $b = r + c$ is divided into r of bitrate and c of security parameter.

r , which is a positive integer less than b , is a input bit of f function, c is a positive integer having the value $b - r$. Message is padded by padding function to be a multiple bit of r , the value obtained by truncating this message every r bits and the XOR operation value of r are used as the input of the function.

After the output value of previous f function and message are XORed, and then it is used as the input value of next f function. While this process is repeated, a process of absorbing message proceeds.

Outline	Keccak sponge function
Designers	Guido Bertoni, Joan Daemen, Michaël Peeters and Gilles Van Assche
Realization	Extendable Output Function(XOF), in other words, generalization of a hash function with arbitrary output length.
Structure	Sponge Construction
Primitive	b is one of the Keccak - $f [b]$ permutation which consists of 25, 50, 100, 200, 400, 800 or 1600 bits. Even if the biggest permutation of Keccak - $f [1600]$ is used in the range of FIPS 202 and SP 800-185 standard, it is possible to use smaller(or 'lighter') permutation in limited environment.
Parameterization standard	Capacity c and Bit rate r
Instances	Keccak $[r , c]$ represents instance. Capacity c determines the security strength proven for common attack. In other words, in case of security level n bit, capacity is $c = 2 n$. In total, $r + c$ is width of permutation among 5, 50, 100, 200, 400, 800 and 1600 bits.
Status	Winner of the SHA-3 competition which is standardized in 3GPP TS 35.231, FIPS 202 and SP 800-185.



RICH CASH INSIDE

SHA-3, which is a sponge structure, is basically useful in all places where SHA-2 is used because SHA-3 an output the size of extensible message digest SHA-2 output and it is fully equipped with features to have in order to be cryptographic function.

In addition, it is highly efficient because it use the interleaving method to access memory with having high parallel structure.

It is relatively safe from the vulnerability of original SHA-2 hash algorithm.

Processing speed is faster than that of existing SHA-2 hash algorithm in every platform.

SHA-3 is possible to extend the length of output.

Keccak Tree hash function not only has better performance, but also is relatively equal at the processing speed, or maintains the lead in some platforms than MD5 hash algorithm.

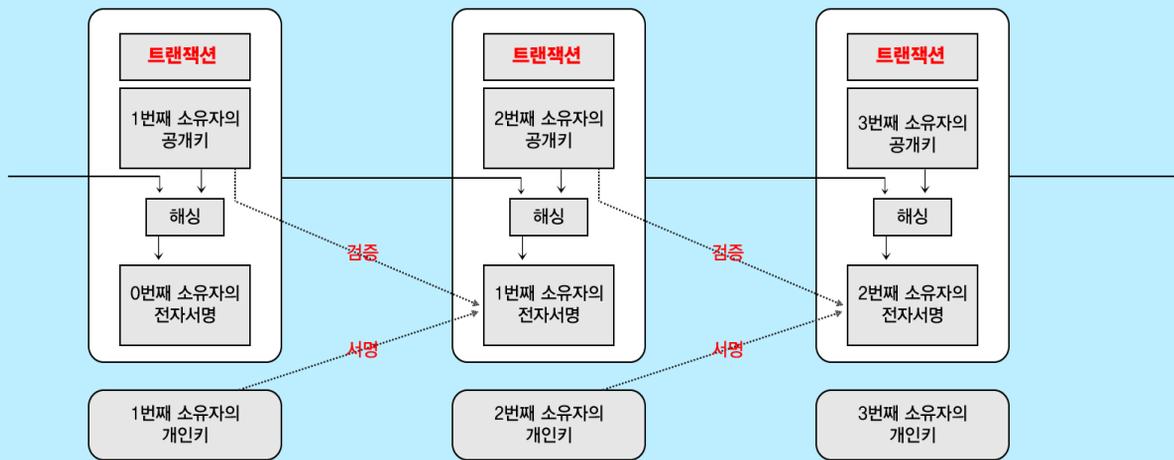
Cycles / byte	Algorithm	Strength
4.79	keccakc256treed2	128
4.98	Md5	< 64
5.89	keccakc512treed2	256
6.09	Sha1	< 80
8.25	Keccakc256	128
10.02	Keccakc512	256
13.73	Sha512	256
21.66	sha256	128

Performance comparison table with major hash algorithm



RICH CASH Transaction Processing and Verification

If transaction occurs in network, RICH CASH chain will handle the transaction as follows.



- 1) User asks for transfer transaction A by using public key.
- 2) Hash value and identifying code are issued corresponding to transfer transaction A.
(TxID) - transfer details could be confirmed instantly through it, identifying code determines what group the miner which can get involved in mining is.
- 3) Miner keeps transfer transaction A details in miner's transfer pool.
- 4) If miner obtains an authority to generate block after succeeding hashing of goal value, details of transfer application are put and are issued in new block in order of 'priority'.
- 5) Block containing the details of transfer transaction A is transmitted to network.
- 6) Transfer transaction A receives one confirmation.



RICH CASH Transaction Processing and Verification

7) Next miner who gets(downloads) the block in network obtains an authority to generate block and generate next block.

8) The 'next block' containing transfer transaction A is transmitted to network.

9) Transfer transaction A receives 2 confirmations.

10) If receiver approves transfer details, settlement is done.

In Bitcoin program designed by Satoshi, re-transfer(re-use) is possible after total 6 times transfer confirmation at each transfer to prepare for the situation where blocks are generated almost simultaneously at a distant node.

If new block is generated before the prior generated block is reached, competition occurs in chain. In this situation, the longer chain is adopted, and the other chain which can not connect the block anymore is destroyed.

The reason why Bitcoin could be reusable after 6 confirms is that if at least 5 blocks are added to the block which has a transaction after the block is generated(1 confirm), it means that problem will no longer occur in the transaction.

At that time, a transaction in the destroyed block returns to its original state and waits for a block to be put back.

Block generation time is 10 minutes on average, in case of a large amount of operation, generating blocks simultaneously is not often.

Also, if there is a competition with between same length chains, the length will be changed soon and competition will be released.

Actually, the completions which have occurred during the last year is released within 2~3 blocks.

Also, a lot of enterprises adjust confirm level in business, so that transfer confirmation is possible only after 1~2 confirms for user's satisfaction.

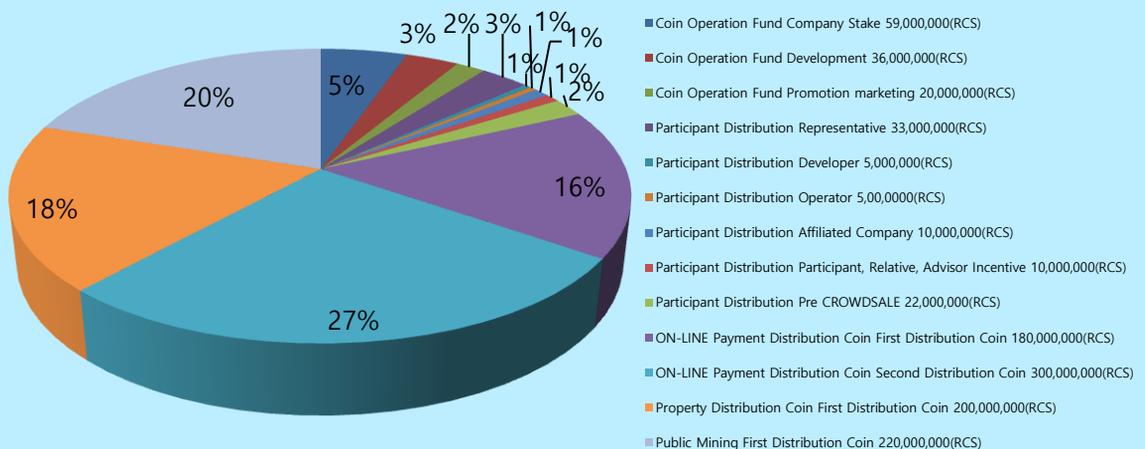


RICH CASH POLICY

- COIN NAME : **RICH CASH**
- COIN Abbreviated Name : RCS
- COIN Unit : 8 decimal places
It is divided into RP1(1 decimal place), RP2, RP3~RP8(8 decimal place)
- RICH CASH Algorithm : Keccak (SHA-3)
- RICH CASH Used Place : payment pay of On - Line shopping mall, property distribution coin
- RICH CASH Total Amount of Deposit : 1100 million RCS
- RICH CASH Public Mining Amount : 220 million RCS
- RICH CASH Pre-mining Amount : 880 million RCS

Distribution of RICH CASH COIN is subdivided as follows.

Division	Distribution Division	Distribution Coin Amount	Rate
Coin Operation Fund	Company Stake	59,000,000(RCS)	5.36%
	Development	36,000,000(RCS)	3.27%
	Promotion marketing	20,000,000(RCS)	1.82%
Participant Distribution	Representative	33,000,000(RCS)	3.00%
	Developer	5,000,000(RCS)	0.45%
	Operator	5,000,000(RCS)	0.45%
	Affiliated Company	10,000,000(RCS)	0.91%
	Participant, Relative, Advisor Incentive	10,000,000(RCS)	0.91%
	Pre CROWDSALE	22,000,000(RCS)	2.00%
ON-LINE Payment Distribution Coin	First Distribution Coin	180,000,000(RCS)	16.36%
	Second Distribution Coin	300,000,000(RCS)	27.27%
Property Distribution Coin	First Distribution Coin	200,000,000(RCS)	18.18%
	Public Mining	220,000,000(RCS)	20.00%





RICH CASH POLICY

RICH CASH is based on keccak (SHA-3) algorithm.

Total amount of issuance is 1100 million RCS, 880 million RCS is pre-mined to use and expand it as payment method.

RICH CASH is listed on exchange, 220 million Rcs is for public mining in consideration of increasing the value of RICH CASH.

Considering that mining when the level of difficulty is increased, there is a need for advanced digger, in order to make anyone to easily mine, keccak (SHA-3) is applied which is well-working in low-specifications. Thus, it has better productivity than ETH or LTC.

Furthermore, heat generated while mining is only 30% of ETH, so it is available for long time use.

Generation time between blocks is 5 minutes; the amount of blocks is 288 blocks per day, block incentive is 40 RCS, the maximum amount of mining incentive is 11,520 RCS per day, and the maximum amount of blocks and incentive following block are applied.

The biggest feature of RICH CASH is a function as real money and that difficulty is applied per block to do public mining.

RICH CASH is operated in fast and various On - Line platform for value creation as real life money.

In order to realize a decentralized world, RICH CASH will define a new community, connect defined communities, and create a new world through connected communities.

RICH CASH will re-define preexistent economic system into community unit, which was defined in country unit through linking economic relation to the community which was as social and political meaning.

Finally, re-defined communities will be closely connected to each other.

Also connecting to not only Real world, but also Crypto-world will lead to infinite scalability.

Coin Name	Richcash Coin
Abbreviation	RCS
Algorithm	keccak (SHA-3)
Time Between Blocks	300 sec (High difficulty)
Block Reward	40 RCS
Total Coin	1,100,000,000 (1100 million RCS)
daily block count	288 blocks
mining coin per a day	11,520 RCS
Rewardable Last Block	5,500,010
Expectation time until Last Block generated	52 years 117 days 6 hours and 10 minutes
maximum block size	2M
pre-mined coin	880,000,000 (880 million RCS)