

# ROSCACOIN

Finance for the ordinary

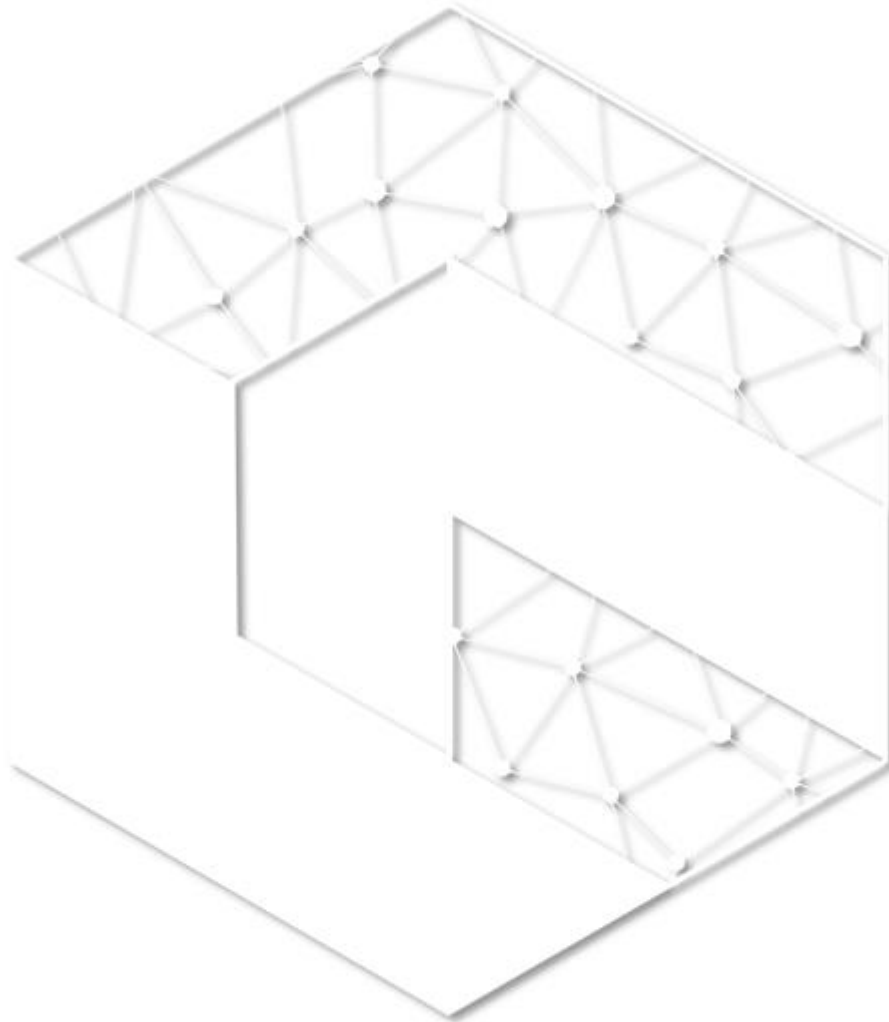
White Paper V1.0



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# 1 EXECUTIVE SUMMARY

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ROSCAcoin is a self-regulating, autonomous and decentralized blockchain platform. With the blockchain technology which encompasses smart contract features, ROSCAcoin able to build a financial solution ecosystem which leverages social capital and trusties to collaborate with better financial options by eliminating higher cost of borrowing, easier financing, better investment options and diversification of risk.

ROSCAcoin Ecosystem platform will offer multiple financial solutions to our user, as below:

1. ROSCA Lending Circle (RLC)
2. ROSCA Credit Score (RCS)
3. ROSCA Merchant Program (RMP)
4. ROSCA P2P Platform (RPP)
5. ROSCA Crowdfunding Platform (RCP)
6. ROSCA Charity Platform (RYP)
7. ROSCA Lucky Draw Platform (RLD)

Each platform will be developed progressively, and the whole ecosystem is projected to complete in year 2022. Besides that, we will also invest in some potential projects which able to boost our ROSCAcoin recognition.

ROSCAcoin Ecosystem Platform is built on Ethereum platform which compatible with ERC20 standard. It will accept Bitcoin and Ethereum Token in exchange for ROSCAcoin Token. This will stimulate the demand for the before mentioned cryptocurrencies and hence further improved their value to the crypto-community.

ROSCAcoin Token (RCA) will be used in all ROSCAcoin Ecosystem platform as this will ease the process and encourage stateless business to which everyone across the world can intersect globally.

## 2 VISION AND MISSION STATEMENT

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### **Background:**

Finding shown there are still many people in the world who do not possess bank account or credit record. Majority of these people are from remote area or country side, which are either lack of accessibility to banking facilities and networking infrastructures, or facing restriction by national governance boundaries. Banks or financial institutions are also challenged to reach out to them. For instance, a farmer in a remote town in the Philippines are distanced from any loan application either domestic or foreign, for an intended substantial purchase.

To provide a solution for the above uncompromising situation, ROSCAcoin concept was thought out and design to help the “disconnected” people. We believe cryptocurrency is the answer, because it is easy to access in any part of the world without boundaries at a low transactional cost. Besides that, with Blockchain technology we will be able to create a decentralized platform to help individuals or businesses to source for investors from all around the world.

To make that happened, a solid infrastructure for internet accessibility and networking must be in place. We have had a plan to allocate some investments to construct the infrastructures in these remote area (subject to the local rules and regulation).

### **Vision:**

To build a sustainable partnership with the wealthy and businesses whom would invest in the same vision to provide financial solutions and strive the accessibility of financial facilities for the needy.

### **Mission Statement:**

To create a decentralized financial solution ecosystem using blockchain technology.

To create a platform which is transparent to any parties involved.

To enable user with the authority to control and manage their financial solution without third party intervention at low cost.

To create a crypto-community where the wealthy and businesses are directly connected with their stakeholders.

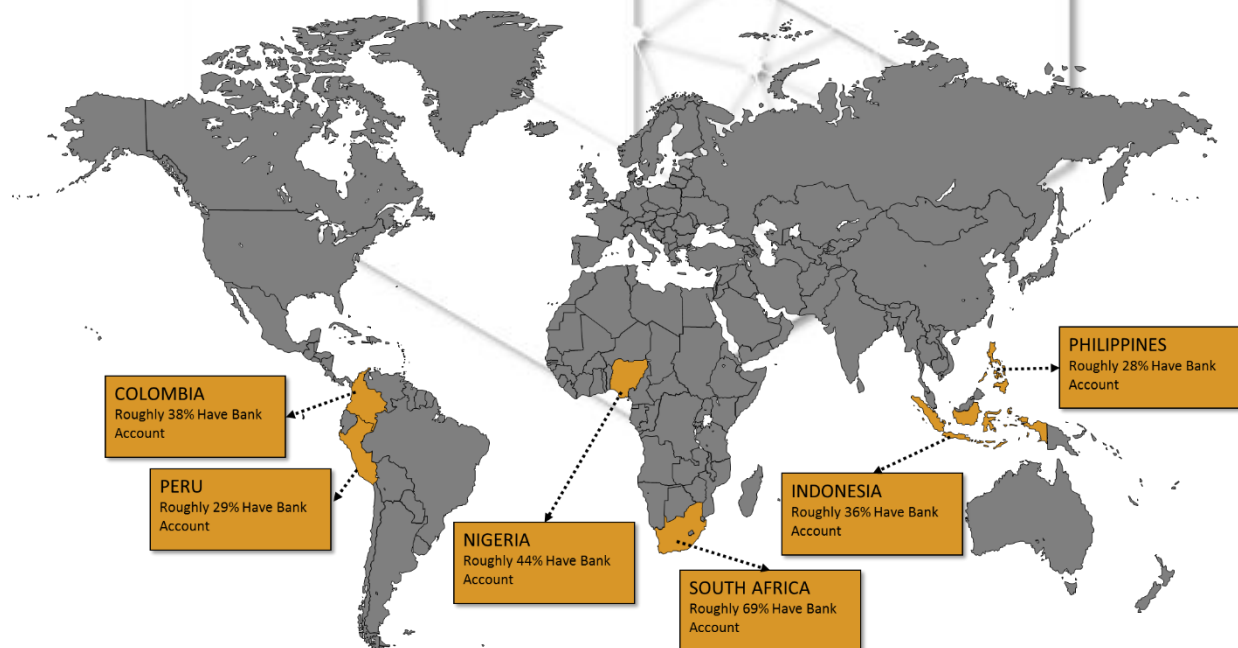
### 3 MARKET OVERVIEW

**Rotating and Saving Credit Associations (ROSCA)** method is a group of individuals who agree to meet together for save and borrow purpose with a defined period. It is a form of combined peer-to-peer banking (P2P) and peer-to-peer lending (P2P).[8]

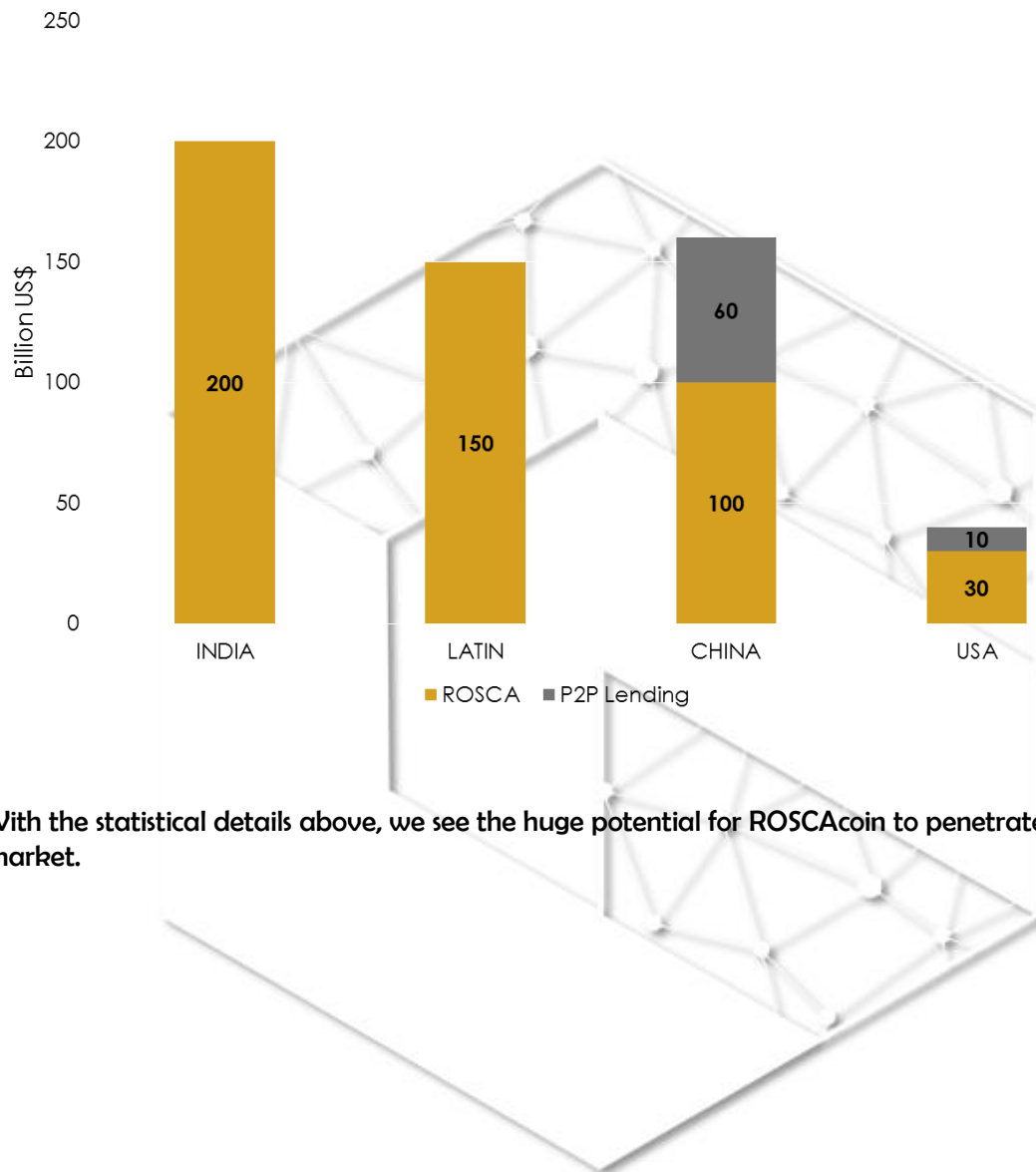
According to Wikipedia 'F.J.A. Bouman described ROSCAs as *"the poor man's bank, where money is not idle for long but changes hands rapidly, satisfying both consumption and production needs."*[1] They are also known as *tandas* (Latin America), *partnerhand* (West Indies), *cundinas* (Mexico), *ayuuto* (Somalia), *hagbad* (Somaliland), *susu* (West Africa and the Caribbean), *hui* (会)(Asia), *palawugang* (Philippines), *Gam'eya* (Middle East), *kye* (계) (South Korea), *tanomosiko* (頼母子講) (Japan), *pandeiros* (Brazil), *juntas* or *quiniela* (Peru), *C.A.R. Țigănesc/Roata* (România), and *arisan* (Indonesia).'[5]

From the statement above, we can understand that the ROSCA method is famous among the people and it had existed for more than thousand years especially in Asia country like China.[7]

There are more than 1 billion people or 17% adults in developing countries around the world using ROSCA to save/borrow and support each other within their trusted community[6]. Besides, more than 2 billion[1] individuals or 39% of the world's population[2] don't have bank account in the world and they might need help for some financial activity like loan. The bank system is contradicted as their purpose is to serve rich people instead of poor people. For people who don't have bank account, don't have good pay job and bad credit score, it will be very hard for them to get financial support like bank loan from traditional financial institution. In fact, they are the group of people which need help the most. Besides, the cost for commercial bank loan will be high for this group of people.



The global market size of the ROSCA is estimated more than 500B USD per year. (The calculation taken will be 1%-10% times the GDP of the country benchmark by India) Besides, the P2P lending market is growing rapidly and has a market size of 70B USD per year globally.



With the statistical details above, we see the huge potential for ROSCAcoin to penetrate this financial market.

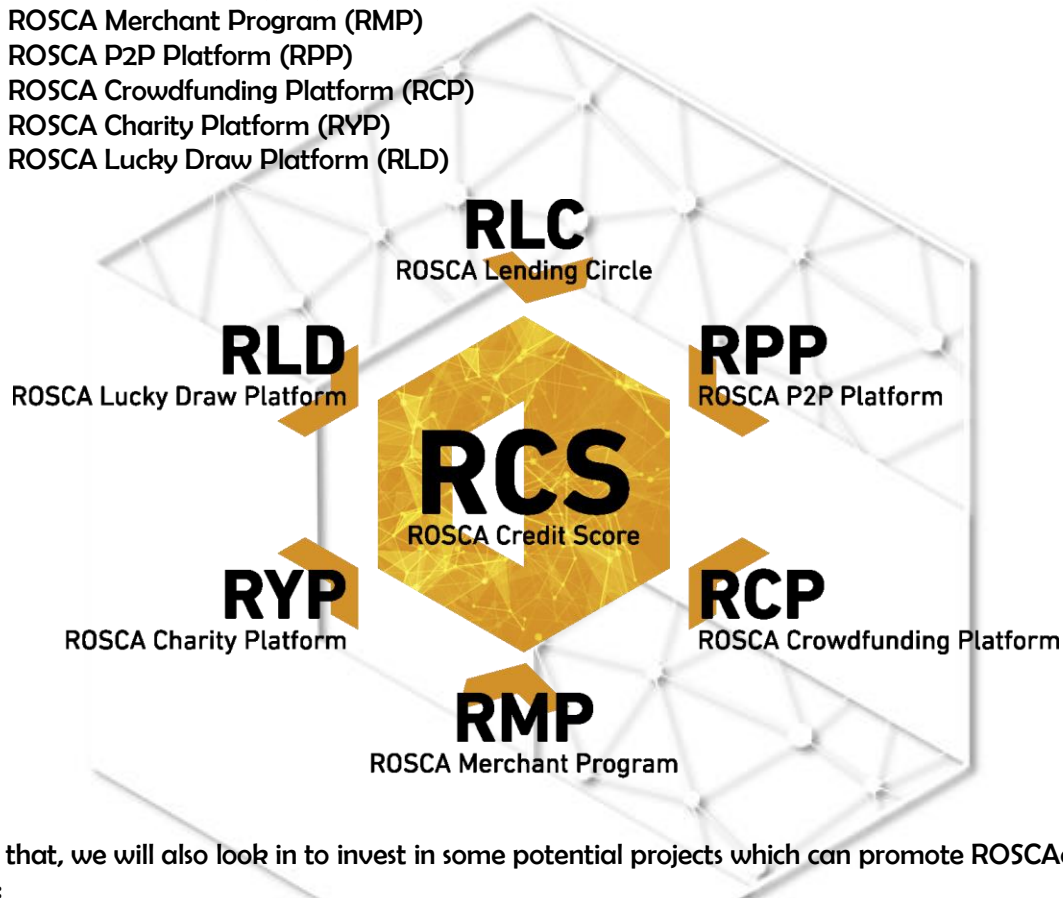
**\*\* ROSCA = Rotating saving and credit association**

**P2P = Peer to peer**

## 4 THE ROSCA COIN ECOSYSTEM

ROSCAcoin Ecosystem is a complete, transparent, free and effective financial solution. This Ecosystem will contain multiple financials solution provide to our users for investment or lending purpose, the financial platforms in ROSCAcoin Ecosystem is as below:

1. ROSCA Lending Circle (RLC)
2. ROSCA Credit Score (RCS)
3. ROSCA Merchant Program (RMP)
4. ROSCA P2P Platform (RPP)
5. ROSCA Crowdfunding Platform (RCP)
6. ROSCA Charity Platform (RYP)
7. ROSCA Lucky Draw Platform (RLD)



Besides that, we will also look in to invest in some potential projects which can promote ROSCAcoin, such as:

1. Merchant for goods and services.
2. Build internet and network infrastructure in remote area.
3. Build ROSCAcoin Kiosks in remote area to help our user.



## 4.1 ROSCA LENDING CIRCLE (RLC)

ROSCA Lending Circle (RLC) is our first and primary product. It contains ROSCA methodology and consists of blockchain's smart contract which automates the saving, borrowing and other ROSCA processes. The ROSCA lending circle presents the contribution amount, funds allocation for bidding process and fund withdrawal of every month. The platform can be conveniently operated and managed via its website and mobile devices. Due to the product's networking nature, user can create or join the ROSCA lending circle within the trusted community and hence can expand the networking web. Besides, we will provide incentives to the users who create the servicing pool that would provide financial services and assistance for the needed person. Moreover, participants can earn interest as well based on the interest they bid. With the adopted technology, we are able to strengthen and enhance the ROSCA method by automating the process, create or improve credit score and eliminating potential risk and fraud. Last but not least, our platform will support stablecoins as they are pegged one to one with fiat currencies which enhance stability and reduce volatility.

### 4.1.1 How RLC work?

ROSCAcoin (RCA) tokens are the currency to be transacted for the ROSCAcoin Lending Circle and other products/services provided by us. Besides, altcoins like Bitcoin, Dash, Dogecoin, Ethereum, Ethereum Classic, Litecoin, Monero, Ripple and Wave will be supported by our platform as well in future. With the smart contract, ROSCAcoin platform will be run autonomously as per written in smart contract, transaction history will be stored in each user profile transparently, auditability and in decentralized way.

To start the ROSCA lending pool, a user need to create a new pool in the smart contract platform, and the user will be considered as the Leader of the pool. He or she need to setup the pool rule like:

1. Number of rounds, minimum 8 rounds per circle.
2. Contribution per round by coins or dollar
3. Number of participants.
4. Payment due date
5. Bidding date for each round.
6. Option to join insurance program (add on some interest and will explain below)

To become a pool leader there will be certain rules to conform:

1. Each privilege user will allow to be pool leader in maximum 3 pools and he/she will be allow to join maximum 3 pools as participant.
2. Collateral and deposit is needed by the leader to protect the participants.
3. User with better credit score (after RCS implemented, refer to 4.2), our system will auto analyze and give the qualification to user with good credit score in ROSCA.

Once the pool is created, Leader need to input 1 month contribution for collateral, 1 month contribution for deposit and 1 month contribution for first round. Collateral is needed by the leader to protect the participants. The leader will receive his full amount of payout with incentives (Ref 4.1.3 Leader Incentive), deposit and collateral payback if there is no delinquency upon the pool completion and closure. If there is delinquent from participant, the leader will be penalized by paying out the collateral to the remaining participants.

Besides, there is an option for Leader to join the insurance program. When joining the insurance program, the first insurance will be 10% of fund collect per month will be allocated to an insurance pool

which invests on our partner's Ethereum mining machine. The insurance pool is sharing among ROSCAcoin ecosystem (lending circles, P2P Funding) for instance 10 Lending Circles and 5 P2P Funding co-own 1 mining machine and share the profit (Ethereum) at the end of the lending circle.

Leader will receive an invitation code to recruit participant to join the pool, number of participant is depending on the rule set by the leader. If all participant in the pool is invited by the leader, the leader will receive a special incentive from ROSCAcoin. Each participant need to contribute 1 month deposit and 1 month contribution for the first round before the payment due date set by the leader. Deposit will be given back to participant upon the pool completion and closure.

During bidding date, each participant will be allowed to bid for the interest they are willing to pay to get the pool fund. Bidding rate is set minimum 10% and maximum 20% of each round contribution. Participant with highest bidding rate will be the winner of the round. The winner will receive all the coins in the pool, however the winner need to pay each participant including the leader a sum of interest he or she bided. Winner will turn to freeze participant once he or she won the bid. Freeze participant will not receive any interest from other participant bidding in the subsequent rounds. ROSCAcoin platform will charge 1% per each gross received from the winner for every round.

In case there is participant who get the payout and disappear, the participant's ID will be blocked and identity will be disclosed to the community to avoid repeat of incident and as a reminder to the community. The phantom participant's deposit, leader's deposit and collateral will be distributed evenly to the remaining participants. Which mean to say, leader will be responsible for every fraud cases happened in his or her pool.

To minimize the fraudulent risk like fake profile, we will implement some Know Your Customer (KYC) process such as:

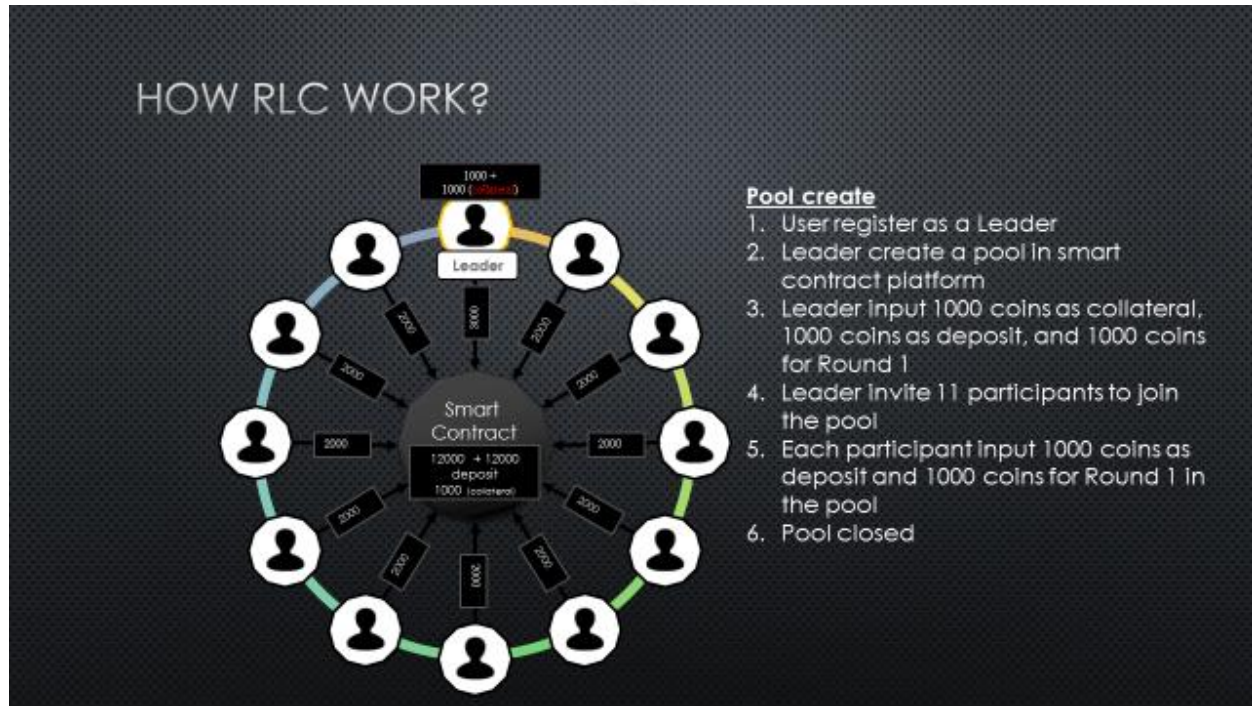
- Name
- Date of birth
- Residence and mailing address
- Valid photo identification (identity card, passport, driver license, alien registration card, student card)
- Require social media profile like Facebook, Twitter, LinkedIn, etc.
- Email and Cell phone authorization

#### 4.1.2 Example of RLC

Leader created a ROSCA lending pool in the smart contract platform and set the rule as below:

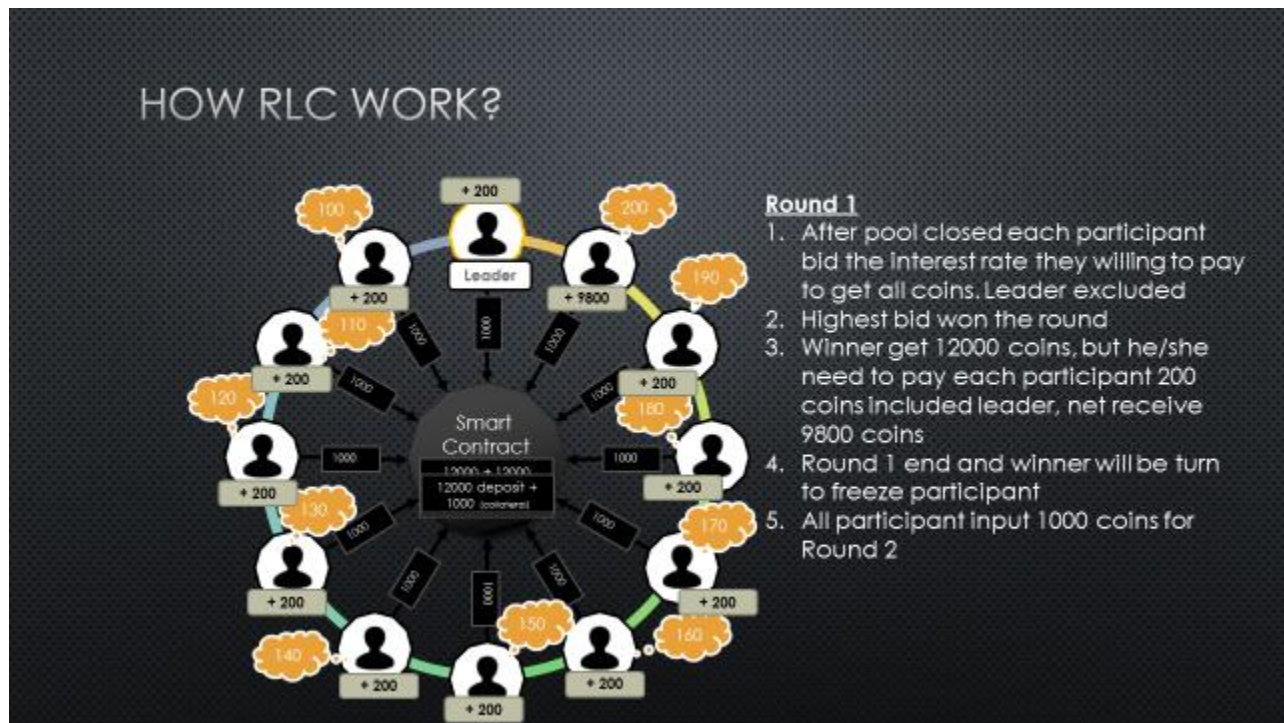
1. Number of rounds: 12
2. Contribution per round: 1000 coins or equivalent to \$ 1000
3. Number of participants : 12
4. Payment due date : 20<sup>th</sup> of each month
5. Biding date : 25<sup>th</sup> of each month

#### Pool creation

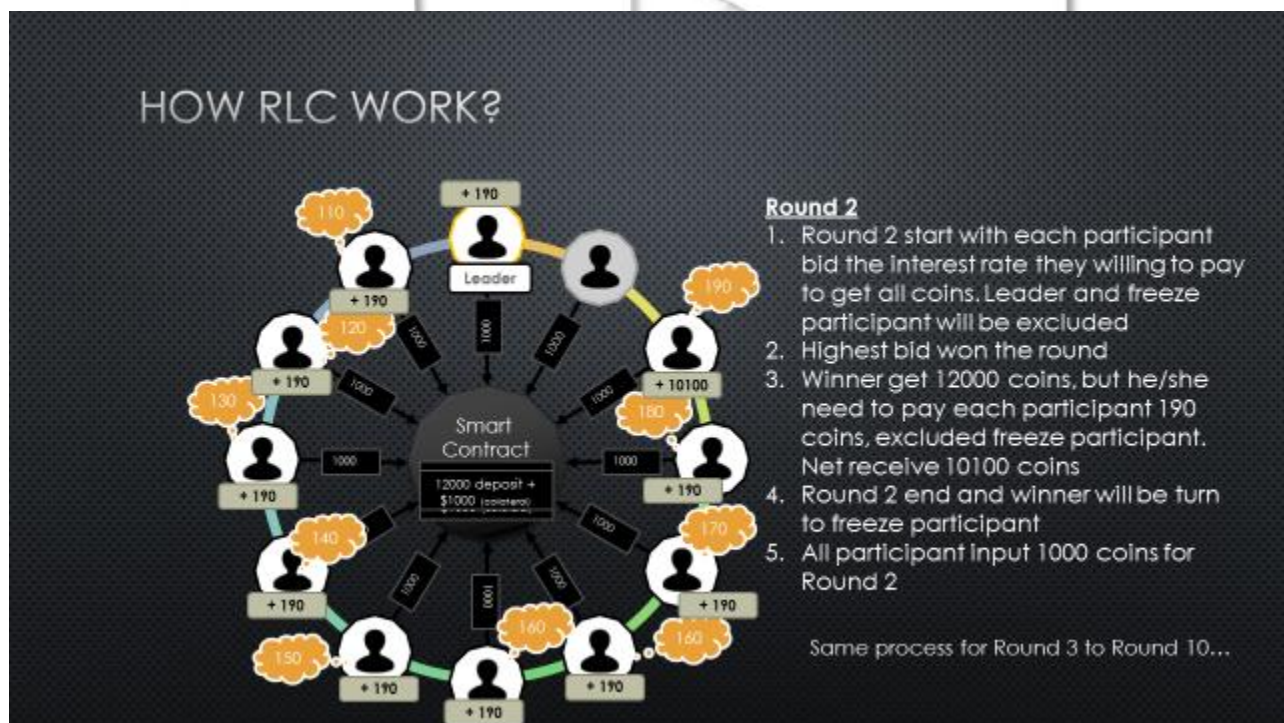




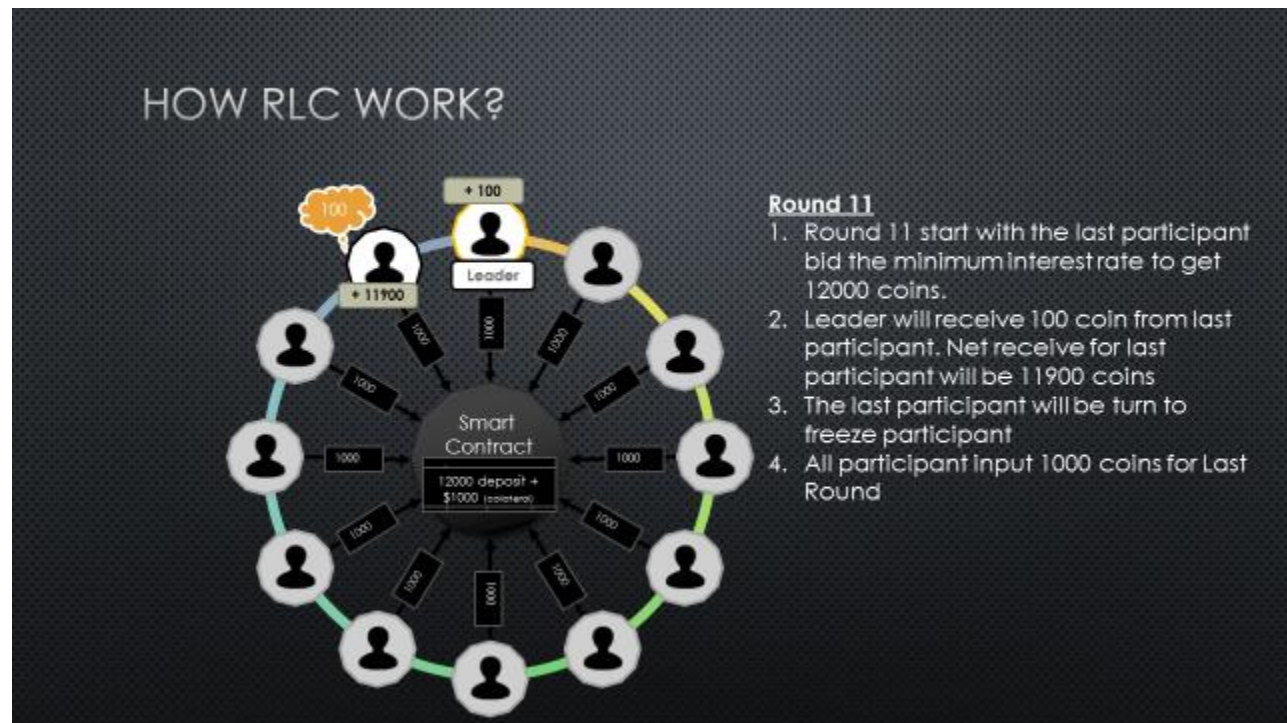
## 1<sup>st</sup> Round



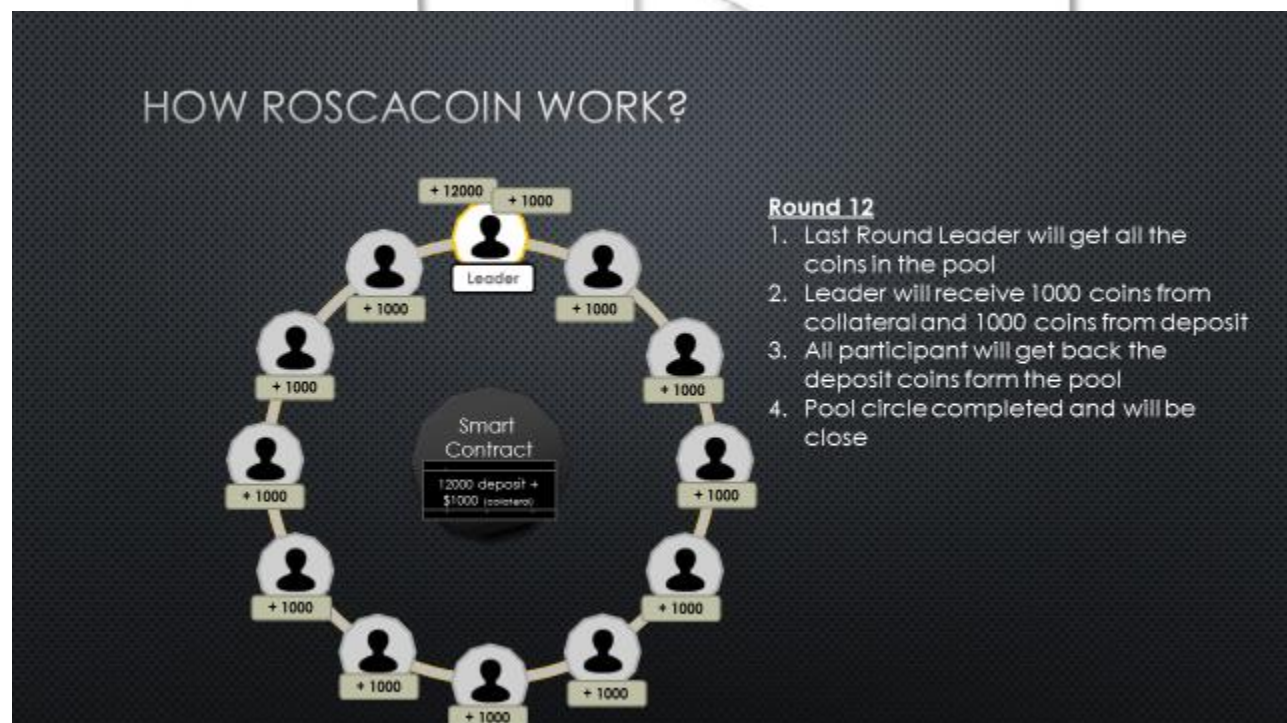
## Round 2



## **Round 11**



## **Last round**





Below table is the summarized illustration for the full circle of a pool:

Pool Summary										
Month	Bid	Participant	Total Invest 12 Months	Interest Pay	Gross Receive	Interest Receive	Platform charges (1%)	Total Received	Interest (-) / Earning (+)	Interest (-) / Earning (+) %
Month 1	200	P1	12,000.00	2,200.00	9,800.00	-	98.00	9,702.00	(2,298.00)	-19.15%
Month 2	190	P2	12,000.00	1,900.00	10,100.00	200.00	101.00	10,199.00	(1,801.00)	-15.01%
Month 3	180	P3	12,000.00	1,620.00	10,380.00	390.00	103.80	10,666.20	(1,333.80)	-11.12%
Month 4	170	P4	12,000.00	1,360.00	10,640.00	570.00	106.40	11,103.60	(896.40)	-7.47%
Month 5	160	P5	12,000.00	1,120.00	10,880.00	740.00	108.80	11,511.20	(488.80)	-4.07%
Month 6	150	P6	12,000.00	900.00	11,100.00	900.00	111.00	11,889.00	(111.00)	-0.93%
Month 7	140	P7	12,000.00	700.00	11,300.00	1,050.00	113.00	12,237.00	237.00	1.98%
Month 8	130	P8	12,000.00	520.00	11,480.00	1,190.00	114.80	12,555.20	555.20	4.63%
Month 9	120	P9	12,000.00	360.00	11,640.00	1,320.00	116.40	12,843.60	843.60	7.03%
Month 10	110	P10	12,000.00	220.00	11,780.00	1,440.00	117.80	13,102.20	1,102.20	9.19%
Month 11	100	P11	12,000.00	100.00	11,900.00	1,550.00	119.00	13,331.00	1,331.00	11.09%
Month 12	0	Leader	12,000.00	-	12,000.00	1,650.00	120.00	13,530.00	1,530.00	12.75%

In a case where a participant, P1 who needed money in advance, he may bid 200 coins / dollar as interest to each player in the lending circle to secure money in advance during the first round. The total interest paid will be 2200 coins / dollar (19.15%). P1 is able to retrieve the payout immediately at a reasonable amount of interest charged.

Participants who are in no urgent need of funding from the pool, for instance, P11 can hold till the Month 11 and earned interest of 11.09% which percentage wise is much higher than that of fixed deposit and other financial investment in the market.

The leader in the last round, he will gain the benefit of getting back 14,000 coins from the pool (12,000 coins / dollar contributed by all players plus 1000 deposit and 1,000 collateral) and interest earned of 1,650 coins or dollar, which is equivalent to 12.75% return on his investment into the pool. In addition, ROSCA platform will award him some incentives (Refer to the incentive detail below in 4.1.3).

#### 4.1.3 Leader Incentive

ROSCAcoin platform will pay incentive to each leader. Below table is the details for the incentive received by each pool leader.

<u>Pool Leader Incentive</u>	<u>ICO Bonus</u>	<u>Invitation Incentive</u>
0.25% of gross receive from each player per round	+20% of Pool Leader incentive	+10% from Pool Leader incentive (subject to all player invite by Pool Leader)

Refer back to the example in 4.1.2, the leader is the ICO member and he invited all player in his pool. He will earn additional 432.25 coins / dollar which equivalent to 3.60% after the pool circle finished.

Below is the illustrated detail of the incentives to be received by the leader:

<u>Month</u>	<u>Leader incentive</u>	<u>Leader incentive (ICO) (additional)</u>	<u>Invitation incentive</u>	<u>Total Incentive Pay by Platform</u>
Month 1	24.50	4.90	2.45	31.85
Month 2	25.25	5.05	2.53	32.83
Month 3	25.95	5.19	2.60	33.74
Month 4	26.60	5.32	2.66	34.58
Month 5	27.20	5.44	2.72	35.36
Month 6	27.75	5.55	2.78	36.08
Month 7	28.25	5.65	2.83	36.73
Month 8	28.70	5.74	2.87	37.31
Month 9	29.10	5.82	2.91	37.83
Month 10	29.45	5.89	2.95	38.29
Month 11	29.75	5.95	2.98	38.68
Month 12	30.00	6.00	3.00	39.00
<b>Total</b>	<b>332.50</b>	<b>66.50</b>	<b>33.25</b>	<b>432.25</b>

#### 4.1.4 Pros and Cons by Using ROSCA Lending Circle

##### **Pros:**

- Interest rate is lower than conventional commercial bank.
- Interest rate is shared and spread among participants.
- Participants own the ROSCA lending circle community which managed by themselves.
- The save and borrow process is shorten and thus improves efficiency.
- Lack of bureaucracy, less fraud, lower default rates, and non-profit motive for the platform.
- Improve credit score for individual who abide to the contract.
- Early payout with a lump-sum amount can be used to invest in a high yield capital asset provided the lump-sum is larger than the threshold amount.
- Able to earn interest for those who choose to collect the payout at later stage especially last stage for leader.

##### **Cons:**

- Trust issue might happen as detailed identity of each participant is not disclosed within the ROSCA's lending circle.
- Possibility of individual who would breach the contract and result in delinquent.
- Request the use ROSCAcoin's wallet to convert cryptocurrency to fiat currency.
- Interest rate is high for those who urgently need money and choose for early payout.



#### 4.1.5 ROSCA Lending Circle Business Model

RLC business model is simple and straightforward. We will charge maximum transaction fees of 1.0% for each round of the ROSCA lending circle. Incentive of 0.1% to 0.6% (depend on the size of pool) will be given to leader of the ROSCA lending circle to encourage user to take initiative to create and lead the lending circle.

Using the same example in 4.1.2 and 4.1.3, below is the illustrated earnings of ROSCAcoin platform:

<u>Month</u>	<u>Gross Receive</u>	<u>Platform charges (1%)</u>	<u>Leader incentive</u>	<u>Leader incentive (ICO) (additional)</u>	<u>Invitation incentive</u>	<u>Total Incentive Pay by Platform</u>	<u>Net Platform Earn</u>
Month 1	9,800.00	98.00	24.50	4.90	2.45	31.85	66.15
Month 2	10,100.00	101.00	25.25	5.05	2.53	32.83	68.18
Month 3	10,380.00	103.80	25.95	5.19	2.60	33.74	70.07
Month 4	10,640.00	106.40	26.60	5.32	2.66	34.58	71.82
Month 5	10,880.00	108.80	27.20	5.44	2.72	35.36	73.44
Month 6	11,100.00	111.00	27.75	5.55	2.78	36.08	74.93
Month 7	11,300.00	113.00	28.25	5.65	2.83	36.73	76.28
Month 8	11,480.00	114.80	28.70	5.74	2.87	37.31	77.49
Month 9	11,640.00	116.40	29.10	5.82	2.91	37.83	78.57
Month 10	11,780.00	117.80	29.45	5.89	2.95	38.29	79.52
Month 11	11,900.00	119.00	29.75	5.95	2.98	38.68	80.33
Month 12	12,000.00	120.00	30.00	6.00	3.00	39.00	81.00
<b>Total</b>	-	-	<b>332.50</b>	<b>66.50</b>	<b>33.25</b>	<b>432.25</b>	<b>897.75</b>

In the subsequent stage of ROSCA development, user's credit score will be captured and analyzed. User with high credit score rate, will stand the chance deal with licensed financial institutions in regards to some ROSCA products which may interest them for investment. Successful deal will bring additional commission to the user.

## 4.2 ROSCA CREDIT SCORE (RCS)

ROSCA Credit Score (RCS) is our second product. The purpose of building this product is to increase the trustworthiness within the user who participates in the ROSCA lending circle. For instance, user who fulfill the contract often participate in huge quantity of ROSCA lending circle will get the higher credit score, reduce the collateral and increase the limit of investment in ROSCAcoin Ecosystem platforms, while user who is not dedicated to contribute and participate less in ROSCA lending circle will get a low credit score and request higher collateral and limited investment in ROSCAcoin Ecosystem platforms. Besides, the credit score can be shared with third party entity for credit history proof purposes, and it can be viewed by other users for consideration of lending or invest in the particular user.

By implementing ROSCA credit score we believe that this will bring positive effect within the community which good users will remain, and bad users will be eliminated. In addition, it will also help other users to make decision on their investment and reduce the risk.

## 4.3 ROSCA MERCHANT PROGRAM (RMP)

ROSCA Merchant Program (RMP) is a program for our community (users who use our platform) that enables members to use ROSCAcoin to trade for goods or services.

### 4.3.1 How RMP work?

Our community is consisted of people across the world, among them whom might own businesses in their respective country. Through the implementation of this program, the community members can use ROSCAcoin to trade among themselves in return for goods or services they required. This will be particularly useful when travelling overseas where transactions are denoted in foreign currencies. Members are able to transact using ROSCAcoin with lower needs of making currencies exchanges. This will also help to minimize the risk of forex losses as ROSCAcoin value is aligned across the globe.

### 4.3.2 Example of RMP

Mr A, Mr B and Mr C have joined in the lending circle program. Mr A is from Vietnam while Mr B is from Thailand. Mr B owns a noodle shop in Thailand while Mr C is a taxi driver. When Mr A travel to Thailand, he can use ROSCAcoin to purchase for noodles in Mr B's shop and acquire Mr C taxi service. He will be able to save money from lesser currency exchanges from Vietnamese Dong to Thai Baht.

## 4.4 ROSCA P2P PLATFORM (RPP)

ROSCA P2P Platform (RPP) is our third product. Peer-to-peer (P2P) lending is a method of debt financing that enables individuals to borrow and lend money without intermediary like conventional finance institute. With peer-to-peer lending, borrowers take loans from individual investors who are

willing to lend their own money for an agreed interest rate. The credit score from ROSCA Credit Score (RCS) of a borrower is available to view so the investor able to determine the risk of lending their money out.

#### 4.4.1 How RPP work?

User who need a loan considered as a debt borrower, he will post a borrowing request in RPP platform with the details of the total coins which he want to borrow, the installment periods and the periods of request for funding in RPP platform. The longer a request remains in the platform, additional transaction fee will be charged with accordance.

For users who lend to the debt borrower considered as a fund lender, he will post a lending offer in the request in RPP platform with the interest he intended to collect from the lending. RPP platform will charge a transaction fee on the offered interest of the lending.

RPP platform will have an automated program to assist the borrower in selecting the lowest interest lending offered in the platform. Once selection done, a loan agreement will be generated via smart contract by the platform with all the agreed details, such as; the installment periods, the interest offered, user profile. Then, the said fund will be transfer to debt borrower and he will need to fulfill the obligation by paying the agreed monthly installment to the fund lender. Late payment will subject to penalty and automatically demerits the borrower's credit score.

Multi fund lender to borrower will be allow as to mitigate the risk and to avoid fraud. There is option for lender to choose to join the insurance program. When joining the insurance program, the first insurance will be 10% of fund collect per month will be allocated to an insurance pool which invests on our partner's Etheruem mining machine. The insurance pool is sharing among ROSCAcoin ecosystem (Lending Circles, P2P Funding) for instance 10 Lending Circle and 5 P2P Funding co-own 1 mining machine and share the profit (Ethereum) at the end of the lending circle.

#### 4.4.2 Example of RPP

Mr A needs an urgent funding. He can post the borrowing request in RPP platform with details as below:

- 2000 RCA
- 10 Month of installment period which is 200 per month with interest

Mr B bids to lend funding with 5% interest;

Mr C bids to lend funding with 3% interest;

The system will work in favor of Mr A by automatically selecting Mr C's offer with lower interest rate.

Loan agreement will be generated via smart contract. Mr A will need to pay 206 RCA to Mr C for 10 months. RPP platform will charge 1% of the total for this transaction, which is 20.6 RCA  $[(2000 \text{ RCA} + 60 \text{ RCA}) \times 1\%]$ .

### 4.5 ROSCA CROWDFUNDING PLATFORM (RCP)

ROSCA Crowdfunding Platform (RCP) is our fourth product and it is product to achieve dream. We welcome anyone who wants to achieve their dream and anyone who willing to support others to achieve dream. We enable two types of crowdfunding as in soft crowdfunding (investment pool, etc.) and hard crowdfunding (machines/IoT/physical asset). Anyone can invest a percentage of stakes in the investment pool or machine that will generate revenue and in return, will receive a portion of profit/dividend from it. With this scalable and democratic model, we are able to unlock billions of investment opportunities which previously controlled by centralized institution. The objective is to

encourage for more business opportunities and stimulate the young minds to innovate new business models to the digital economy. We believe through this platform, it will widen the market for most business sectors by presenting the opportunities for people to form their own business and achieving financial freedom. The startup process will be managed by smart contract automatically without the need for middleman nor intermediaries.

#### 4.5.1 How RCP works?

Crowdfunding Seeker will need to develop and post the project plan/campaign in RCP platform, with the following details:

1. Introduction of product with interesting features;
2. Product picture or design;
3. Business or marketing studies;
4. Others relevant pictures (optional);
5. Video clips (optional);
6. Website (optional);
7. Goals & Objectives (value substantiality and other details);
8. Return on Investment.

Crowdfunding Backer will have the opportunity to look out for the project plan/campaign which he/she would be interested to study, assess and invest on its growth. Each investment will be bound by an agreement generated by the platform via smart contract. RCP will charge 3% transaction fee to Crowdfunding Seeker.

#### 4.5.2 Example of RCP

Mr Z has a land on countryside with nice environment, fresh air, close to nature and distanced from the ever-busy city life. He's very keen to build a cozy homestay for tourist, however he is short in capital to startup his business plan. Thus, he can plan to start a crowdfunding campaign with details like:

- Total fund needed is 200,000 RCA.
- Profit sharing of 5% monthly for 5 years for every investment made.
- The principal of investment will be returned after 5 years.
- Backer will get free 3 homestays per year for 5 years after completion of the premise.

Mr Y is one of the interested crowdfunding backer and he decides to invest 10,000 RCA on it. He owns 5% of the total capital. He will be entitled to receive 5 RCA from homestay's net profit of 1,000 RCA per month. Basically, he will receive 5% of homestay's net profit per month for 5 years in RCA. When his 5 years investment matured, he shall receive back his invested 10,000 RCA in full. RCP platform charge will be 6,000 RCA, which is 3% of the total funded capital 200,000 RCA.

## 4.6 ROSCA LUCKY DRAW PLATFORM (RLD)

ROSCA Lucky Draw Platform (RLD) is the sixth product for ROSCA ecosystem. This is a fun and interesting platform for all ROSCAcoin user. This platform is designed to collect 10 RCA at the beginning of every quarter in a year. All collected coins will be kept in a pool. As at the end of each quarter, the platform's automated system will randomly pick the Winners who had contributed coins in the pool. The prizes will be as below:

Winner	Prize
<b>First Winner</b>	30% of the total coins in the pool
<b>Second Winner</b>	20% of the total coins in the pool
<b>Third Winner</b>	10% of the total coins in the pool
<b>Consolation Winner (30 users)</b>	1% of the total coins in the pool

*\*RLD platform will charge 5% from each Winner as transaction charges.*

The automated system is operated via Blockchain and smart contract technology, thereof the withdrawal of lucky Winners within the pool is random and free of manipulative conducts.

The transaction charges receive from this platform will be allocate to difference ROSCA platform, breakdown by:

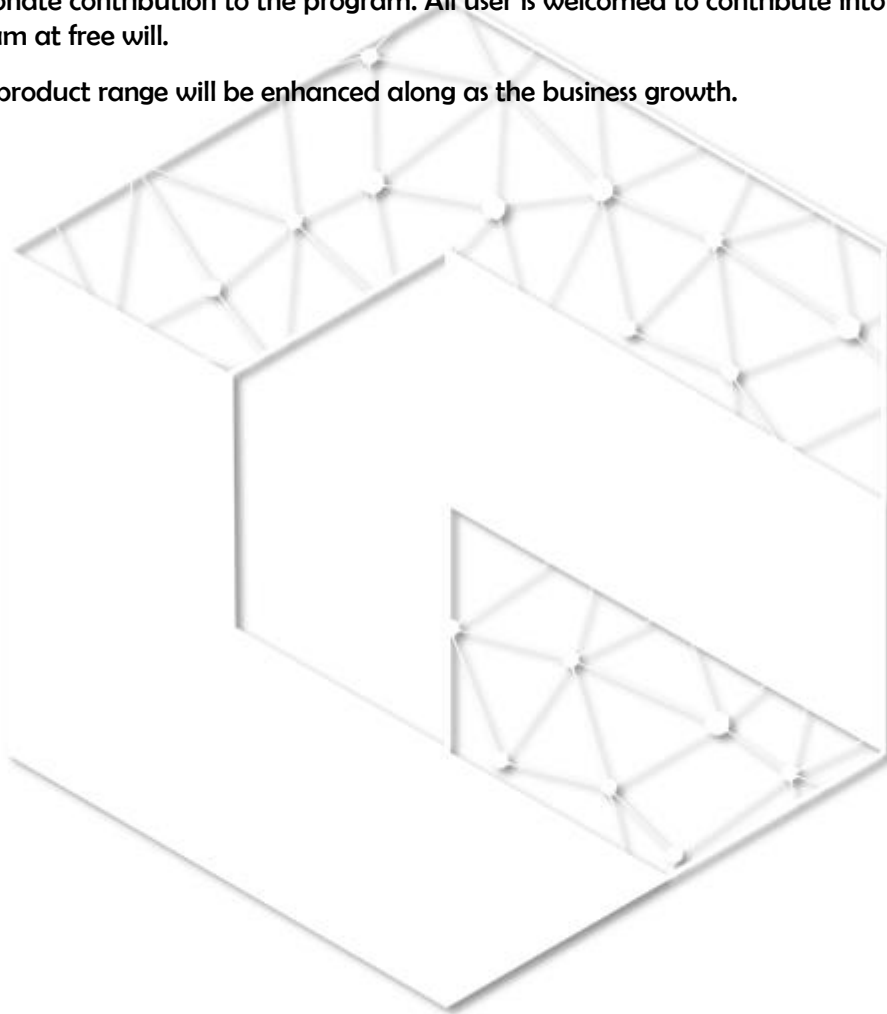
- 40% to be contribute to ROSCA Charity Platform
- 10% to be contribute to ROSCA Crowdfunding Platform
  - Can provide assistance to the project which can't reach the funding goal
- 10% to be contribute to ROSCA P2P Platform
  - Can provide assistance to lender if borrower didn't pay back the loan
  - Can provide assistance to borrower if can't reach the loan funding goal
- 10% to be contribute to ROSCA Lending Circle
  - Can provide assistance to the lending circle in case bias like participant disappear without input contribution to the circle round
- 20% to be contribute back to ROSCAcoin as operating expenses

## 4.7 ROSCA CHARITY PLATFORM (RYP)

ROSCA Charity Platform (RYP) is our seventh product. The purpose of this platform is to fulfill our Corporate Social Responsibility and we believe that through the adoption of Blockchain technology, fraud and biasness on the disbursement of charity fund will be governed and channeled to the rightful recipients.

In every quarter of a year, our team will gather and assess the request from the non-profit organizations, then post the proposed charity program in this platform. ROSCAcoin will lead the initiative to donate contribution to the program. All user is welcomed to contribute into the posted charity program at free will.

\*\*ROSCAcoin product range will be enhanced along as the business growth.





## 5 TECHNOLOGY

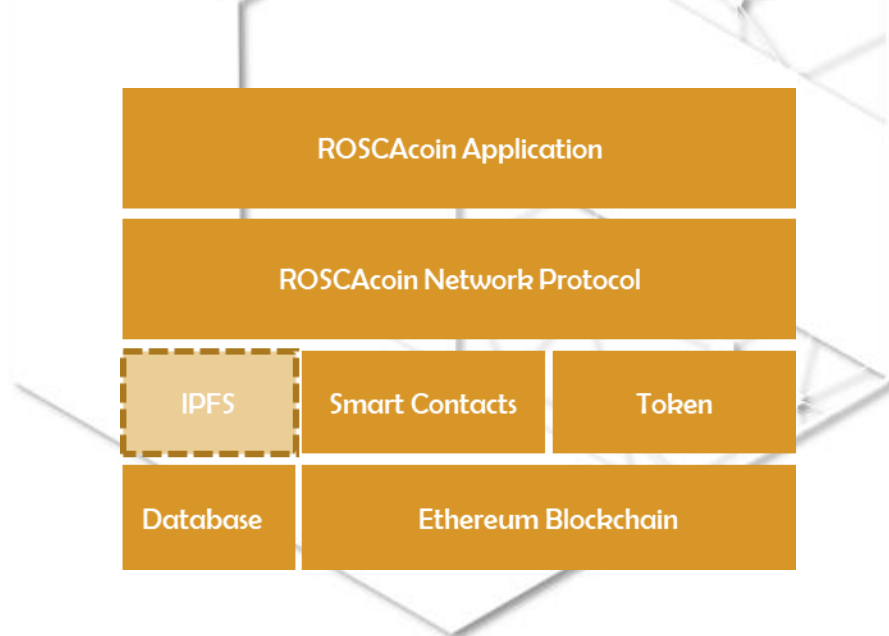
### 5.1 TECHNICAL OVERVIEW

ROSCAcoin user will interact with frontend interface (i.e. web, mobile application like Android, iOS) and backend using PHP. The backend system will be the Ethereum blockchain where smart contract is created. The smart contract defines and manages the process and rule of the ROSCA lending circle, user's information, transaction history.

Algorithm is implemented to assist the system to learn and analyze users' behavior. It will help to identify the fraudulent users and keep them quarantined from using all platforms' system. This way will improve the credibility of our ROSCA Credit Score product, thus brings positive impact to the platform.

ROSCAcoin is a decentralized platform system and deviates from conventional business with centralized structure. The business processes like fund management, bidding, fund allocation and fund distribution are decentralized in a way that could eliminate bureaucracy, fraud and hacking on information.

#### ROSCAcoin Architect Overview



#### ROSCAcoin Application

ROSCAcoin application contain of Web and Mobile App. We will use Laravel framework for the web and two native for mobile which is iOS and Android respectively. Native have the advantages like speed, responsive, better UI and better security.

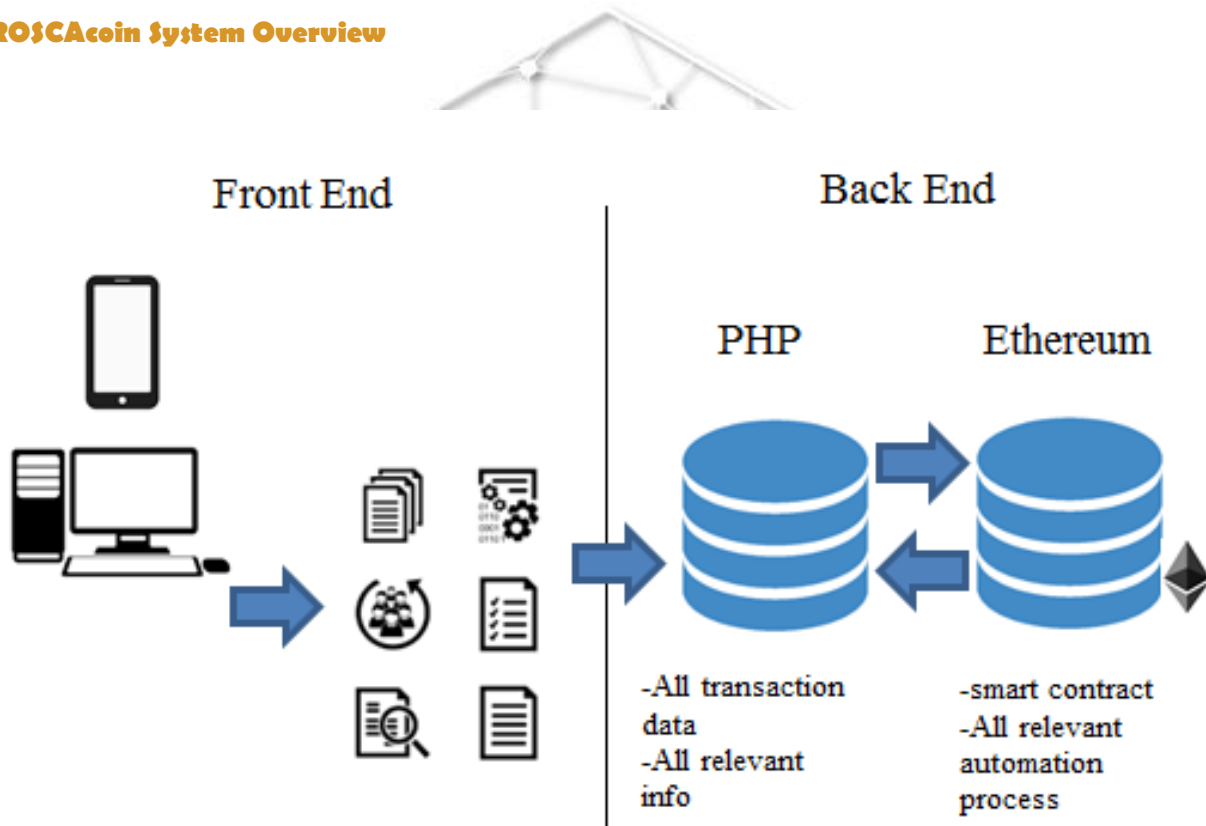
#### ROSCAcoin Network Protocol

ROSCAcoin Network Protocol enables the transmission and interaction of data between the application and blockchain.

## Database, IPFS and Ethereum Blockchain

Database will in MySQL. This is a stable and common database. Ethereum is decentralized and the transaction speed is 15 TPS which is slightly slow. Besides, GAS is needed when the transactions is going through, hence increase of transaction will result in increase of cost. Therefore, in order to strengthen and accelerate the transfer between transactions and data, the IPFS file system will be our future research direction. Besides, we will research into other blockchain or own blockchain in near future if Ethereum can't able to fulfil our requirement.

## ROSCAcoin System Overview



## Front End (Web and Mobile Application)

Web and mobile application platform are to be developed and launched for our users. Web application will be prioritized for development and follow by mobile application. The functions and features for ROSCA Lending Circle (First product) as per below:

1. Sign up / Login
2. Inflow / Outflow e-wallet
3. Create / Join ROSCA



## **Back End**

PHP (with Laravel Framework) and MySQL will be adopted as backend database. PHP is stable and our core team members have years of experience being exposed to it. This will speed up and reduce the risk of failure throughout the product development process. Ethereum platform will be built as backbone for the smart contract.

## **5.2 WHY BLOCKCHAIN?**

ROSCAcoin will use Ethereum blockchain smart contracts to provide additional security and transparency for the ROSCA's product process, as well as other processes in the future.

### **Security**

Security is our main concern as there is cryptocurrency involved in transactions hence we shall have several security mechanisms in place to protect our users. HTTPS will be encrypted to all connection. Secret keys and firewall rules will be secured between core components for internal API. For external API, industrial standard like OAuth will be implemented with the use of security token which is essential for mobile application. Security level is enhanced to prevent the alteration or hacking of account data. The smart contracts are being developed in comprehensive logic with careful details input to fulfill the effectiveness and efficiency of the smart contract automated process.

### **Transparent**

By using blockchain smart contract, all transactions are available and extractable for viewing. It can be served as legal documentation to support for financial and tax audit review. These transactional data are accessible at any time as required. Unauthorized alteration to account data is at minimal risk as it will be mission impossible to alter all blocks at the same time.

### **Empowered Users**

Users are fully in control of the transaction and their information.

### **Access**

By using Ethereum smart contracts, ERC20 standard will be incorporated to create RCA Token. RCA is tradeable globally on any cryptocurrency exchange which accepts it.

### **High Quality Data**

The data flow within blockchain is complete, consistent, accurate and available for anyone at anytime.

### **Faster Transaction**

The inflow and outflow of transactions in ROSCAcoin's platform is efficient and online every 24/7. Unlike conventional financial institutes, certain processes can potentially take days for clearance purpose and final settlement.

### **Process Integrity**

The transaction trustworthy as it will be executed exactly as the protocol commands.

### **Decentralization**

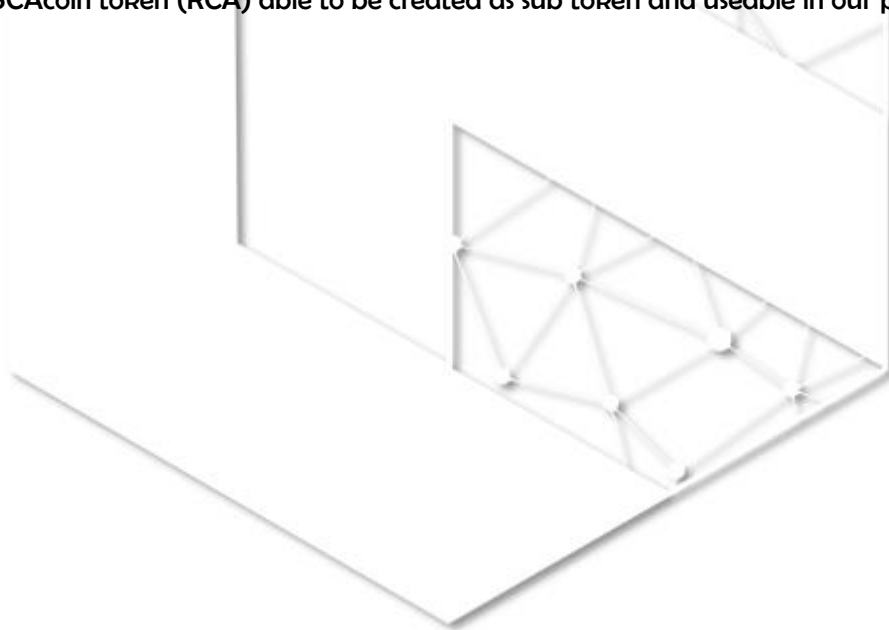
Two parties are able to make an exchange without intervention of a third party which in turn potentially reduced the counterparty risk.

### 5.3 ETHEREUM

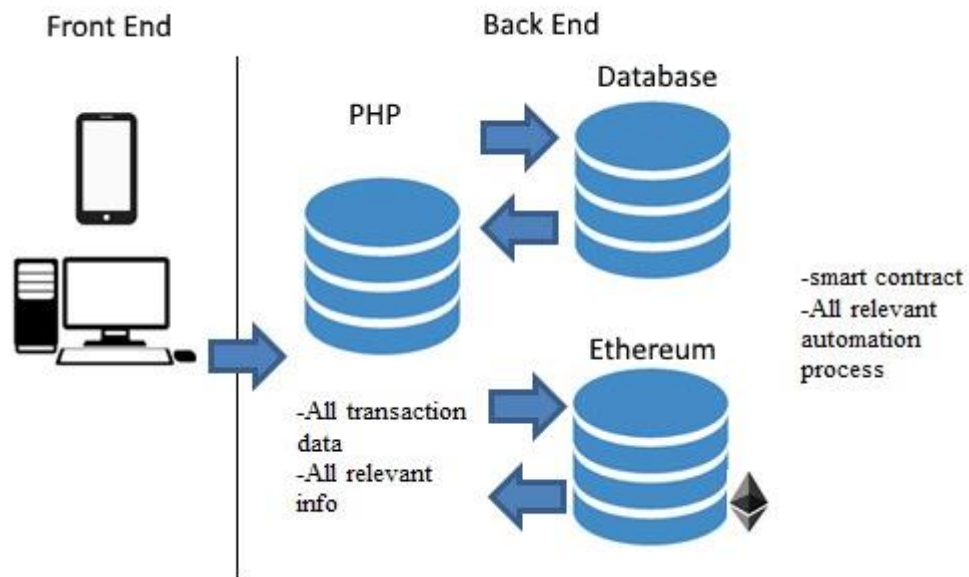
Ethereum is an open-source, public, blockchain-based distributed computing platform featuring smart contract (scripting) functionality. It provides a decentralized Turing-complete virtual machine, the Ethereum Virtual Machine (EVM), which can execute scripts using an international network of public nodes. Ethereum also provides a cryptocurrency token called "ether", which can be transferred between accounts and used to compensate participant nodes for computations performed. "Gas", an internal transaction pricing mechanism, is used to mitigate spam and allocate resources on the network.[3]

Ethereum is currently the platform which widely being used due to its stability and it contains all of the blockchain benefits. With the invention of smart contract which is decentralized and automated, it makes the platform ever more powerful and efficient.

The Ethereum token standard (ERC20) is used for Ethereum smart contracts. Developed in 2015, ERC-20 defines a common list of rules that an Ethereum token has to implement. Giving developers the ability to program how new tokens should function within the Ethereum ecosystem. This token protocol became popular with crowdfunding companies via Initial Coin Offering (ICO).[4] With the ERC20 standard, ROSCAcoin token (RCA) able to be created as sub token and useable in our platform.



## RO\$CAcoin Smart Contract Overview



Every layer of the processes is done by smart contract as below:

**User** – A smart contract which records user's information including personal and historical transaction record;

**Proxy-Controller** – A smart contract which manages user's interaction with the platform like authorization logic and permission agreement;

**ROSCA-Fund** – A smart contract which contains all information and business logic within the platform.

## 6 PRODUCT ROADMAP

The fund raising from public will be utilize to build out the ROSCAcoin products such as:

1. ROSCA Lending Circle (RLC)
2. ROSCA Credit Score (RCS)
3. ROSCA Merchant Program (RMP)
4. ROSCA P2P Platform (RPP)
5. ROSCA Crowdfunding Platform (RCP)
6. ROSCA Charity Platform (RYP)
7. ROSCA Lucky Draw Platform (RLD)

Year	Month	Activities
<b>2017</b>	Sep	Market Research
	Oct	Business Plan
		Marketing Plan
		Whitepaper Documentation
<b>2018</b>	Mar	Pre ICO Launch
	Apr	ICO Launch
	Jul	ROSCA Lending Circle (RLC) Core & Mobile Development
	Aug	ROSCA Lending Circle (RLC) & ROSCA Merchant Program (RMP) MVP Testing
	Oct	ROSCA Lending Circle (RLC) Final Product Development
<b>2019</b>	Jan	ROSCA Credit Score (RCS) Product Development
	Apr	ROSCA Lending Circle (RLC) & ROSCA Merchant Program (RMP) Go Live
	May	ROSCA Credit Score (RCS) Go Live
	Aug	ROSCA P2P Platform (RPP) Core & Mobile Development
	Oct	ROSCA P2P Platform (RPP) MVP Testing
<b>2020</b>	Jan	ROSCA P2P Platform (RPP) Final Product Development
	Apr	ROSCA P2P Platform (RPP) Go Live
	Jul	ROSCA Crowdfunding Platform (RCP) Core & Mobile Development
	Aug	ROSCA Crowdfunding Platform (RCP) MVP Testing
	Oct	ROSCA Crowdfunding Platform (RCP) Final Product Development
<b>2021</b>	Jan	ROSCA Crowdfunding Platform (RCP) Go Live
	Apr	ROSCA Lucky Draw Platform (RLD) Core & Mobile Development
	Jun	ROSCA Lucky Draw Platform (RLD) MVP Testing
	Oct	ROSCA Lucky Draw Platform (RLD) Final Product Development
<b>2022</b>	Jan	ROSCA Lucky Draw Platform (RLD) Go Live
	Mar	ROSCA Charity Platform (RYP) Core & Mobile Development
	May	ROSCA Charity Platform (RYP) MVP Testing
	Aug	ROSCA Charity Platform (RYP) Final Product Development
	Nov	ROSCA Charity Platform (RYP) Go Live

## 7 FUNDRAISING

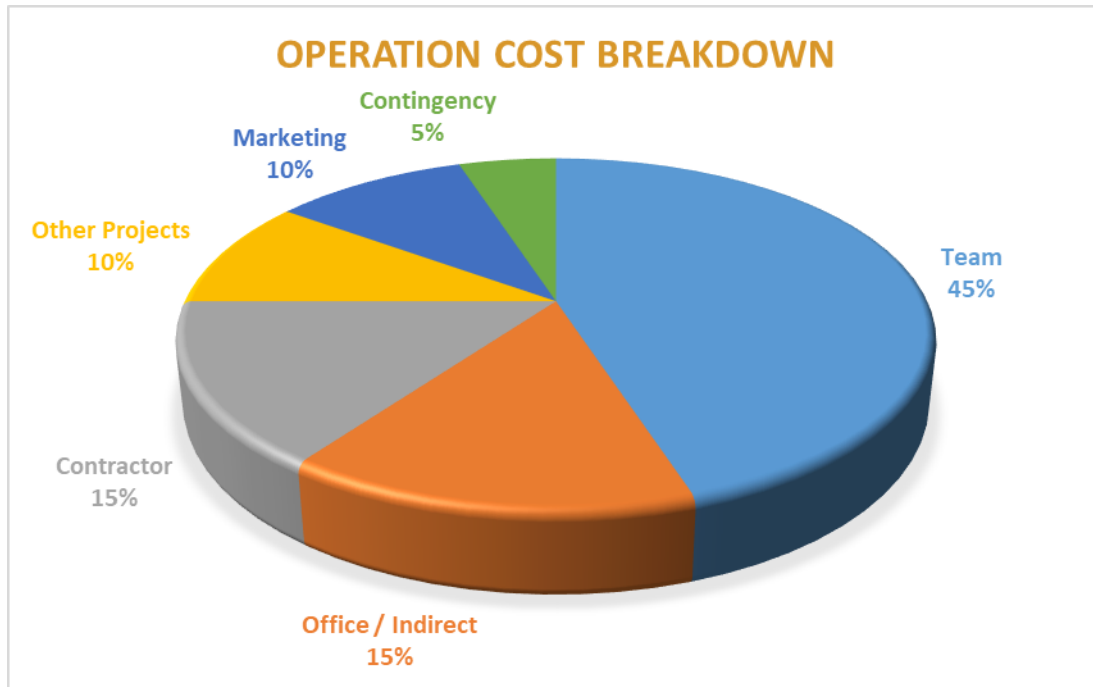
### 7.1 TOKEN SPECIFICATION

Token Name	RCA (ROSCAcoin)
Token Standard	Ethereum ERC20
Total Quantity of tokens	10 000 000 000 (10 billion), not re-issuable
Token Quantity for sale	1 500 000 000 (1.5 billion)
Exchange / Payment Method	ETH and BTC
Pre-ICO Period	March 2018

Our coins breakdown will be as below:



## 7.2 FUNDS AND OPERATION COST ALLOCATION



45% of the funding we obtained from RCA tokens will be allocated to our team salary and allowance, as we believe our team members are the main asset in the ROSCAcoin organization.

15% will be allocated to our office expenses and overheads, such as office rental, utilities, furniture and fitting.

15% is to be allocated to our contractors, including legal advisor, outsource bounty service, outsource designer and other outsource services.

10% is to fund our marketing activities, and these expenses include business development and digital marketing.

10% is for other projects such as implementation for ROSCAcoin merchant, Kiosk, and building infrastructures for remote area.

Remaining 5% of the fund shall form the contingency reserve.

## 8 GO TO MARKET STRATEGY

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### Revenue Model

1. Transaction fees from ROSCA Lending Circle
2. Transaction fees from ROSCA P2P Platform
3. Transaction fees from Crowdfunding Platform
4. Transaction fees from Lucky Draw Platform
5. Referral or advertisement fees from partner

### 8.1 MARKETING STRATEGY

ROSCAcoin will promote our product in global cryptocurrency, financial forum like [bitcointalk.org](http://bitcointalk.org), [reddit.com](http://reddit.com) and also local cryptocurrency. Example: China's [8btc.com](http://8btc.com) and [btcman.com](http://btcman.com).

ROSCAcoin will work with professional and reliable mass media firm like [bitcoinprbuzz.com](http://bitcoinprbuzz.com) as well as ICO rating platform like [ICObench](http://ICObench) to increase awareness towards our products and publishing our establishment and progresses in the cryptocurrency global network.

ROSCAcoin will work with local community as well as NGO to penetrate the market.

ROSCAcoin will hire local staff for local market penetration.

ROSCAcoin will make use of digital marketing to promote our product.

ROSCAcoin will appoint professional bounty team to promote and introduce our project during ICO period.

## 9 OUR TEAM

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### 9.1 CORE TEAM

#### **Boon Lee, ACMA CGMA – Co founder, Product, Strategy**

Lee is a consultant for ERP software for several well-known brands like Microsoft and Oracle. He not only consult and implement the ERP system, he also consult the client to improve their business process. For the past 3 years, he had involve in the multi millions project implementation and consult the clients which sales worth more than RM 1B. With his experience on software project implementation, this will value to our project road map. He is chartered management accountant and hold ACMA CGMA.

#### **Troy Woo – Co founder, Finance, Operation**

Troy is a supply chain product costing manager for a well-known worldwide brand. He not only involve in product costing, he also involve in implement ERP system for new plant among Asia Pacific. Within his service period in the company, he able to reduce product cost by analysis the cost variance, and also work with all other department and people from difference background. He holds a bachelor degree of accounting in Sheffield Halam University.

#### **Franky Tan – Co founder, Business Development**

Franky is a business development manager in a fast growing e-commerce and software development company. Upon his service period, he and his team manage to push the company to list in ASX. Upon the period, his break his company record by reaching MYR 6M sales within 4 months.

#### **Wilson Chin – Co founder, Business Development**

Wilson had more than 15 years' experience in Education & Business Development in I.T. Industries. He currently holds a position as Marketing Director in a fast growing e-commerce company. During his service in the company, he generated MYR 15M sales within 1 year.

#### **Justin Goh – Co founder, CTO**

Justin is a geek's technology solution architect and enthusiastic in technology. He will self-learn for any technology he interested to. He has passion in blockchain technology and wants to use his skill to create something great for the society.

#### **Shu Han Goh – Co founder, Mobile Lead**

Shu Han is mobile developer which talent in mobile development. He used to lead a mobile development project for a well-known low cost carrier in Asia. Besides that, he is also a smart contract developer.



### **Sraawan Kumar – Full Stack Engineer, India Community Lead**

Sraawan is an experienced software engineer. He is good and experiences in software development and also Oracle product like Oracle EBS and Fusion. Besides that, he is also a web application and smart contract developer. With his experience in Chit-fund, he will lead the India community as well.

### **Muhammad Chairullah (Irul)– Back End Engineer, Indonesia Community Lead**

Irul is an experience back end engineer which going through and completed numbers of project. With his experience in Arisan, he will lead the Indonesia community as well.

## **9.2 ADVISORS**

### **Ken Ho – IT advisor**

Ken currently is Senior IT Manager for a well-known multiple national corporation, with various year of experience in IT's SOP and IT audit. He been appointed to be ROSCAcoin IT advisor and will provide his professional advice in out IT related setup, such as networking, server setup, and IT audit.

### **Ronnie – Blockchain and Mining Advisor**

Ronnie own a digital marketing agency and is an experience investor. He had years of experience in stock, bond market and now is the cryptocurrency market. He also experienced in cryptocurrency mining.

### **Wilson Ng - Business Consultant**

Wilson Ng currently is a project based Business Consultant, majority on cryptocurrency academy and new ICO project. He had 10 years working experience in several of industries such as, Tel-co, internet service provider, e-commerce, real estate and property, etc.

### **Foong Wei Chieh – Business Consultant**

Foong is a serial entrepreneur and investor who involve in various businesses from healthcare, hardware technology to software technology. He used to be Shell's project accountant and currently is a Finance Director for an event management company.

## 10 APPENDIX:

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- [1] Demircug-Kunt, A., Klapper, L., Singer, D., Van Oudheusden, P.: The Global Findex Database 2014. URL: <http://documents.worldbank.org/curated/en/187761468179367706/pdf/WPS7255.pdf> (2015), (Accessed May 02, 2017)
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- [3] <https://en.wikipedia.org/wiki/Ethereum>
- [3] <https://www.ethereum.org/>
- [4] <https://medium.com/blockchannel/understanding-the-ethereum-ico-token-hype-429481278f45>
- [5] [https://en.wikipedia.org/wiki/Rotating\\_savings\\_and\\_credit\\_association](https://en.wikipedia.org/wiki/Rotating_savings_and_credit_association)
- [6] <https://medium.com/@sunilsachdev/fintech-meets-rotating-savings-and-credit-associations-ffe30564f130>
- [7] Simon, W. K. "Civil Society in China: The Legal Framework from Ancient Times to the "New Reform Era"", Oxford University Press (2013)
- [8] Mateescu, A. "Peer to Peer Lending" Data & Society (2015)