



ECOINOMIC.NET

Project Technical Description

Abstract

Basic description of the platform for granting loans for cryptocurrency pledged as collateral.

Maksim Akulshin
maksim.akulshin@ecoinomic.net

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1 Project Brief Description

1.1 Idea

Providing loans (USD, EUR and others) with cryptocurrency pledged as collateral (ETH, BTC etc.).

1.2 Feasibility Demonstration

Overwhelming majority of users does not consider cryptocurrencies and tokens as a means of payment or access to favors and services, viewing them as investments. The cryptoassets market is highly speculative and presupposes greater demand for loans. Marketing formulation of the service: “**Get the money — keep your investment.**”

1.3 Users

- Those who need money but do not wish to lose their investments.
- Those who wish to get a “lever” for dealing for a rise (pledge a bitcoin and buy another half of bitcoin with the loan money).
- Those who wish to indemnify against the risk cryptocurrency depreciation.

1.4 Market

The total volume of cryptocurrency market is estimated at **300 billion dollars**.

The volume of monthly loan requirement is estimated at **6 billion dollars**.

The analysis was made on the basis of similar services and the data of cryptoassets exchanges, as well as the relevant research.

Example: the SALT Lending project dealing in the limited USA loan market (the share on a world-wide scale is around 20%) gained over one million of applications in less than a month of its work.

<https://news.bitcoin.com/crypto-backed-salt-claims-1-3-billion-backlog-suspends-new-memberships/>

2 Economic Model

2.1 Basic Terms and Definitions.

Platform — a system of providing loans: its software, hardware, structural and organizational parts.

Interest on a loan — the cost of using the loan. Is indicated in per cent per annum. Paid by the user in national currency.

Token — an element of a platform giving the right to conclude a contract for obtaining a loan. May be freely passed by users. Used in commissions.

Commission — cost of concluding a loan agreement, a lump-sum remuneration payed to the platform. It is recorded in national currency, but it is paid in the tokens of the platform.

Loan-to-value (LTV) — percentage value of the provided loan amount depending on the current value of collateral.

APR — full loan value, including commissions and one-time payments. It is indicated in per cent per annum.

Maximum loan term — indicated in days for each concluded contract.

Maximum loan amount — indicated in national currency for every regional market.

2.2 Working Algorithm

- The user possesses a bitcoin with a current value of USD 10 thousand.

- The user sends it to the smart contract. The description of a smart contract is given in the chapter “Platform Architecture,” it is a confirmation of the fact that until the user adheres to the terms of a loan agreement, neither the platform nor any third person can withdraw or use the collateral.
- The platform provides a loan for the user with LTV 50%: that is, in the amount of 50% of the original value — USD 5 thousand.
- As soon as the user returns the loan and the interest on the loan, bitcoin is returned to the user.

Important: the figures specified in this section do not reflect real parameter values but are used only for the purpose of an example.

2.3 Specific Features

- One user **may take an unlimited number of loans**.
- Each loan **may be prolonged an unlimited number of times**.

The idea of splitting the loans into “bits,” limited by the maximum period and sum, ensure management of volatility risks (change the terms of contract at final short intervals) and charge the respective commissions.

2.4 International Format

2.4.1 Requirement for distributed operation of the platform

Markets are subject to individual **regulation of microfinance services**.

For instance, the value of APR for loans in South Korea cannot exceed 24-25%. The same parameter for Russia is limited by 95%. In Spain it is about 50%. Account must be taken of **the risk of cryptocurrency market regulation** for this or that region including a total ban on operation.

A stable and predictable work is only possible under the condition that the service is functioning at several markets in the world.

2.4.2 Basic and additional regions

Basic:

- Russia
- European Union
- South Korea
- Great Britain
- Kazakhstan
- Turkey
- Hong Kong
- Vietnam

Additional:

- Ukraine
- Belarus
- Indonesia
- India
- Thailand
- Cambodia
- Singapore
- Malaysia

2.5 Model's calculated rates

The below figures reflect the mean value across the markets:

- Mean interest on a loan is **10-12% per annum**.

- Mean commission is **equivalent of USD 100**.
- Mean amount of a loan is **about USD 5 000**.
- Mean LTV is **50%**.
- Calculated mean effective interest rate is **35-36% per annum**.

2.6 Management of Volatility Risks

2.6.1 Management parameters

We understand high volatility of cryptoassets. The parameters of **LTV** and **maximum loan term** are used as parameters for regulation. These parameters are individual for every type of collateral and they change depending on the market behavior.

2.6.2 Requirements to pledge cryptoassets as collateral

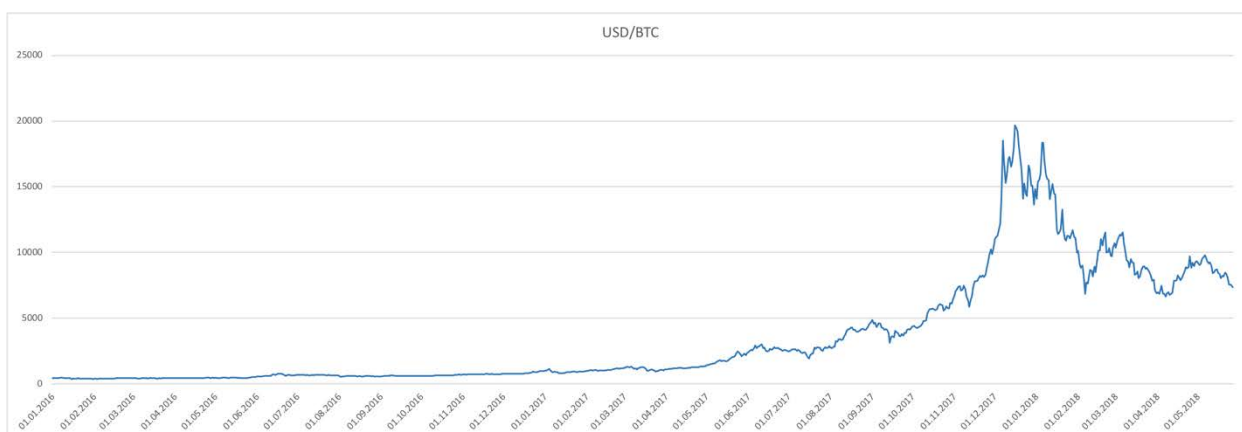
- **Cryptoassets with auction history less than one year are not accepted as collateral.**
- The cryptoasset is in **top ten of the list of currencies with the biggest capitalization** on those stock exchanges that had been selected as the key ones for the platform.

2.6.3 Calculation methodology for LTV and maximum term of a loan

- For every hour of every day in the last year, maximum drop of value was calculated as a percent of the initial value of the cryptoasset under study.
- The pair of LTV parameters and maximum term of the loan are matched so as to decrease to the permissible level the probability of the situation when the cost of collateral becomes lower than the loan amount including commissions and interest.
- The probability is considered permissible when it is below 2%.

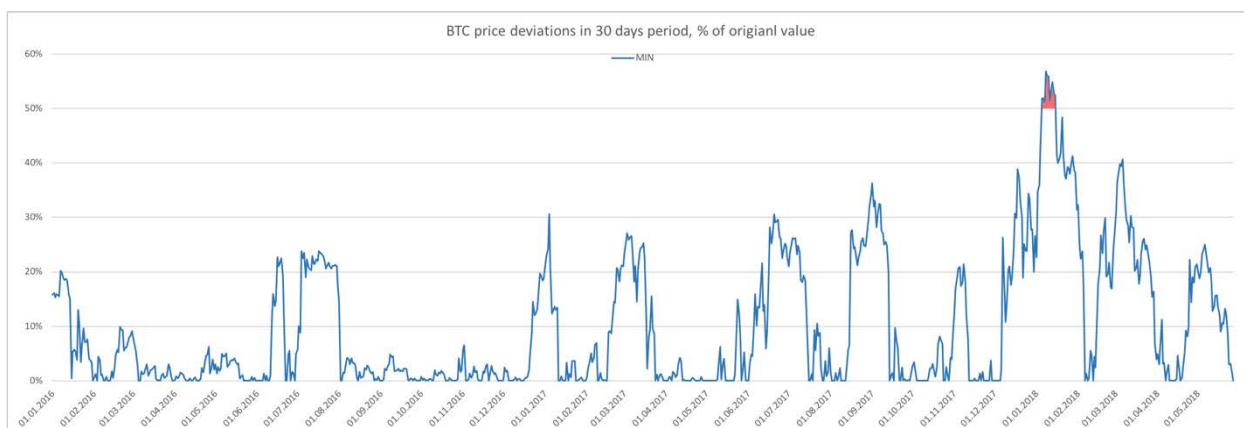
2.6.4 Applied Analysis of Volatility

Let us analyze the historical record of the USD/BTC exchange rate within a period from 01.01.2016 till 27.07.2018. The values are taken from portal coingecko.com.

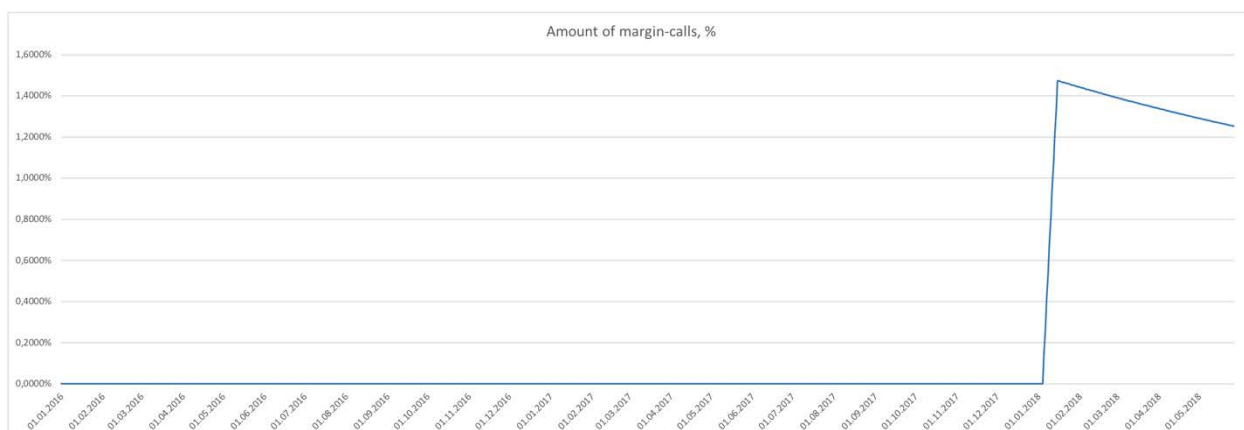


In accordance with the suggested methodology, maximum BTC value drop will be calculated for every day for a 30-day interval. The diagram of such drops in relation to the original value is presented below.

Red color highlights the area when the cost of potential collateral was higher than the accepted mean value of LTV — 50%.



The following diagram shows the mean value for the onset of a situation when the platform will have to dispose of the collateral (or suggest alternative ways out for the borrower).



In case of even distribution of collateral in a period from 01.01.2016 till 27.07.2018 and granting the loans for a period of 30 days with the LTV of 50%, the amount of such situations does not exceed 1.5%, which is in full conformity with the requirements set in the economic model.

A similar analysis was performed for other cryptoassets, the original data and results may be downloaded upon request. The research is available in MS Excel, xlsx formats.

2.6.5 Adaptational model of management

In the adaptational model of management, the calculation of a pair of parameters of LTV and the maximum term of the loan is done on a continual basis, with an interval of one hour for every studied type of collateral.

- Based on N of the last exchange rate measurements, trend line values are calculated using the ordinary least squares method.
- Trend line is used to calculate the assumed change in the currency dynamics, on the basis of which LTV parameters and maximum term of loan are corrected. The goal is to adapt to market changes before they become essential for the platform.

Within a period from 01.01.2016 till 27.05.2018 rules were being developed as regards granting the loans for a period from 20 to 60 days with LTV from 40 to 50%. The number of situations when the pledge value became less than the loan value (considering interest and commissions) was 0.

2.7 Additional Measures for Risk Mitigation

- The whole amount of operating capital **cannot be given out** for loans **within one region**.
- The whole amount of operating capital **cannot be given out in one day**.

Quotas for time and countries are periodically set by platform managers.

3 Token

3.1 Intended Use

The intended use of the platform token is **payment of commissions for concluding the contract**.

3.2 Life Cycle

- All tokens that have not been sold during ICO are destroyed.
- All platform commissions are recorded in USD but are accepted only in the form of tokens.
- All the tokens accepted as commission payment are blocked for a period of five years.
- The platform gets the right to sell each token only after expiration of the period of its blocking in accordance with the FIFO principle. For example, it means that tokens accepted as payment on 1 September 2018, may not be sold again in the same amount until 1 September 2023. This principle should be a limiting factor to influence the exchange rate of a token.

3.3 Feasibility Demonstration

The suggested model of token life cycle allows for quick reduction of their amount in the market. But it will never go down to zero, as **the reduction of their amount will be reflected in the growth of their value**, and token divisibility will eventually allow for making payments with its hundredth or thousandth part.

(a table and a diagram)

3.4 Principle of Stabilization

The system is self-stabilizing and not subject to the influence of big investors. In case a large amount of tokens is “unloaded” in the market, it can cause token price adjustment within a short period, but owing to the fact that the commission charge has been recorded in USD, token consumption in the system will grow, which, in its turn, will result in reduction of their supply, so that their price will returning to the original values.

3.4 Performance Characteristics

3.4.1 General description

Standard: **ECR233**

Accuracy: **18 decimal places**.

3.4.2 Minimum implemented functions

```
uint public totalSupply;
function balanceOf(address who) public view returns (uint);
function name() public view returns (string _name);
function symbol() public view returns (string _symbol);
function decimals() public view returns (uint8 _decimals);
function totalSupply() public view returns (uint256 _supply);
function transfer(address to, uint value) public returns (bool ok);
function transfer(address to, uint value, bytes data) public returns (bool ok);
function transfer(address to, uint value, bytes data, string custom_fallback) public returns (bool ok);
event Transfer(address indexed from, address indexed to, uint value, bytes indexed data);
```

3.4.3 SafeMath

```
contract SafeMath {
    uint256 constant public MAX_UINT256 =
    0xFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF;
    function safeAdd(uint256 x, uint256 y) pure internal returns (uint256 z) {
```



```

    if (x > MAX_UINT256 - y) revert();
    return x + y;
}
function safeSub(uint256 x, uint256 y) pure internal returns (uint256 z) {
    if (x < y) revert();
    return x - y;
}
function safeMul(uint256 x, uint256 y) pure internal returns (uint256 z) {
    if (y == 0) return 0;
    if (x > MAX_UINT256 / y) revert();
    return x * y;
}
}

```

3.4.4 Function name()

```

function name() public view returns (string _name)
    return name;
}

```

3.4.4 Function symbol()

```

function symbol() public view returns (string _symbol) {
    return symbol;
}

```

3.4.4 Function decimals()

```

function decimals() public view returns (uint8 _decimals) {
    return decimals;
}

```

3.4.4 Function totalSupply()

```

function totalSupply() public view returns (uint256 _totalSupply) {
    return totalSupply;
}

```

3.4.4 Function transfer()

```

function transfer(address _to, uint _value, bytes _data, string _custom_fallback) public returns (bool success) {
    if(isContract(_to)) {
        if (balanceOf(msg.sender) < _value) revert();
        balances[msg.sender] = safeSub(balanceOf(msg.sender), _value);
        balances[_to] = safeAdd(balanceOf(_to), _value);
        assert(_to.call.value(0)(bytes4(keccak256(_custom_fallback)), msg.sender, _value, _data));
        emit Transfer(msg.sender, _to, _value, _data);
        return true;
    }
    else {
        return transferToAddress(_to, _value, _data);
    }
}

```

```

function transfer(address _to, uint _value, bytes _data) public returns (bool success) {
    if(isContract(_to)) {
        return transferToContract(_to, _value, _data);
    }
    else {
        return transferToAddress(_to, _value, _data);
    }
}

```

```

function transfer(address _to, uint _value) public returns (bool success) {
    bytes memory empty;
    if(isContract(_to)) {
        return transferToContract(_to, _value, empty);
    }
    else {
        return transferToAddress(_to, _value, empty);
    }
}

```

3.4.4 Function isContract()

```

function isContract(address _addr) private view returns (bool is_contract) {
    uint length;
    assembly {
        length := extcodesize(_addr)
    }
    return (length>0);
}

```

3.4.4 Function transferToAddress()

```
function transferToAddress(address _to, uint _value, bytes _data) private returns (bool success) {
    if (balanceOf(msg.sender) < _value) revert();
    balances[msg.sender] = safeSub(balanceOf(msg.sender), _value);
    balances[_to] = safeAdd(balanceOf(_to), _value);
    emit Transfer(msg.sender, _to, _value, _data);
    return true;
}
```

3.4.4 Function transferToContract()

```
function transferToContract(address _to, uint _value, bytes _data) private returns (bool success) {
    if (balanceOf(msg.sender) < _value) revert();
    balances[msg.sender] = safeSub(balanceOf(msg.sender), _value);
    balances[_to] = safeAdd(balanceOf(_to), _value);
    ContractReceiver receiver = ContractReceiver(_to);
    receiver.tokenFallback(msg.sender, _value, _data);
    emit Transfer(msg.sender, _to, _value, _data);
    return true;
}
```

3.4.4 Function balanceOf()

```
function balanceOf(address _owner) public view returns (uint balance) {
    return balances[_owner];
}
```

3.5 ICO

3.5.1 General information

Issue of tokens, pcs.: 2,100,000,000

Tokens for sale: 1,550,000,000

Not involved: USA (except accredited investors), Singapore (except accredited investors), PRC.

The KYC procedure is obligatory for all participants.

Accepted for payment at Pre-Sale stage: ETH

Accepted for payment at other stages: ETH, BTC, XRP, BCH, LTC, NEO, XMR, ZEC

Sale of tokens of eCoinomic.net is divided into three stages.

- Beginning of registration in whitelist for Pre-Sale: 15 March 2018
- End of registration in whitelist for Pre-Sale: 03 April 2018
- Beginning of Pre-Sale Development Stage: 03 April 2018
- End of Pre-Sale Development Stage: 21 April 2018
- Beginning of Crowdsale Development Stage: 01 May 2018
- End of Crowdsale Development Stage: 01 June 2018
- Beginning of Reserve stage: 01 June 2018
- End of Reserve Stage: 01 August 2018

Hard Cap: USD 106,000,000

Soft Cap: USD 6,000,000

3.5.2 Conditions

Conditions of Pre-Sale stage within a period from 03.04.2018 till 21.04.2018.

Maximum amount of CNC tokens for sale at Pre-Sale stage is 150,000,000. Minimum purchase sum is not specified. Maximum contribution is USD 250,000.

The participants of Pre-Sale stage shall be granted early access to the platform and special conditions of the service.

Pre-Sale stage shall go on until 21.04.2018 or until the amount of USD 6,000,000 has been collected.

Token value: 1 CNC = USD 0.05

The bonus amount depends on the sum of purchase:

Bonus: Up to 25% (the limiting period for bonus tokens is 2 months as of the completion of all the token sale stages)

The bonus amount depends on the sum of purchase:

≤ \$ 49,999: 10%

≤ \$ 99,999: 15%

≤ \$ 149,999: 20%

≥ \$ 150,000: 25%

The conditions of Crowdsale Development stage within a period from 01.05.2018 till 31.05.2018

The amount of CNC tokens for sale at Crowdsale Development stage depends on the amount of tokens sold at Pre-Sale stage, in case USD 6,000,000 has not been collected. Minimum purchase amount is not specified. Maximum contribution is USD 250,000. The participants of Crowdsale Development stage shall be granted early access to the platform and special conditions of the service.

Crowdsale Development stage shall go on until 31.05.2018 or until the amount of USD 6,000,000 has been collected.

Token value: 1 CNC = USD 0.05

The resources collected at Crowdsale Development stage shall be used for launching the platform only.

The conditions of Reserve stage within a period from 01.06.2018 till 01.08.2018.

Maximum amount of CNC tokens for sale at Reserve stage is 1,400,000,000. Minimum purchase sum is not specified. Maximum contribution is USD 250,000.

Reserve stage shall go on until 01.08.2018 or until the Hard Cap contribution amounting to USD 100,000,000 has been collected.

Token value:

1 CNC = USD 0.06

During this token sale stage the token value shall increase by 1 cent every 9 days.

Period	01-09 June	10-18 June	19-27 June	28 June 06 July	07-15 July	16-24 July	25 July 1 August
Token value CNC, \$	0,06	0,07	0,08	0,09	0,10	0,11	0,12

All unsold tokens will be destroyed after token sale.

81% of resources collected at Reserve stage, shall be transferred to the Reserve and shall not be spent. This amount shall be blocked at escrow bank accounts as a reserve for ensuring institutional investors participation and family offices as creditors.

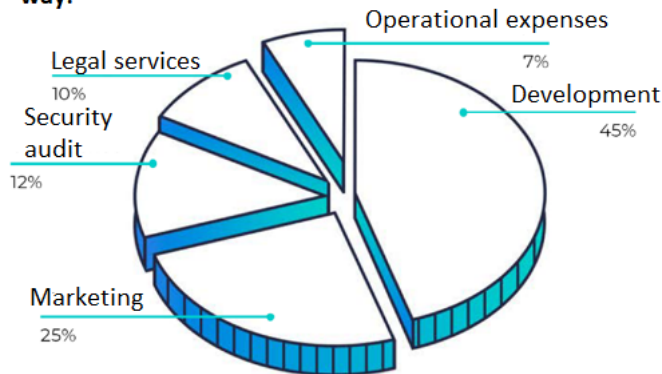
10% shall be used for covering the platform's operational expenses until it becomes profitable.

9% shall be spent for marketing and platform promotion.

eCoinomic.net shall submit the reports and documents related to using the money and shall undergo annual audit performed by one of the audit companies of the Big Four.

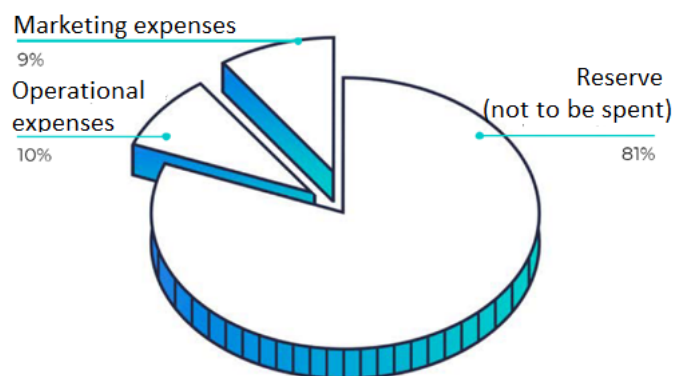
3.5.3 Project implementation fund

Resources collected at Pre-Sale and Crowdsale Development stages, shall be allocated in the following way:



3.5.4 Reserve fund

Resources collected at Reserve stage, shall be allocated in the following way:



4 Organizational model

4.1 Structure of the holding

4.1.1 Parent company

The country of registration is Cyprus. It is governed by English law. 20% of shares belong to anchor investors.

4.1.2 Micro financial organizations

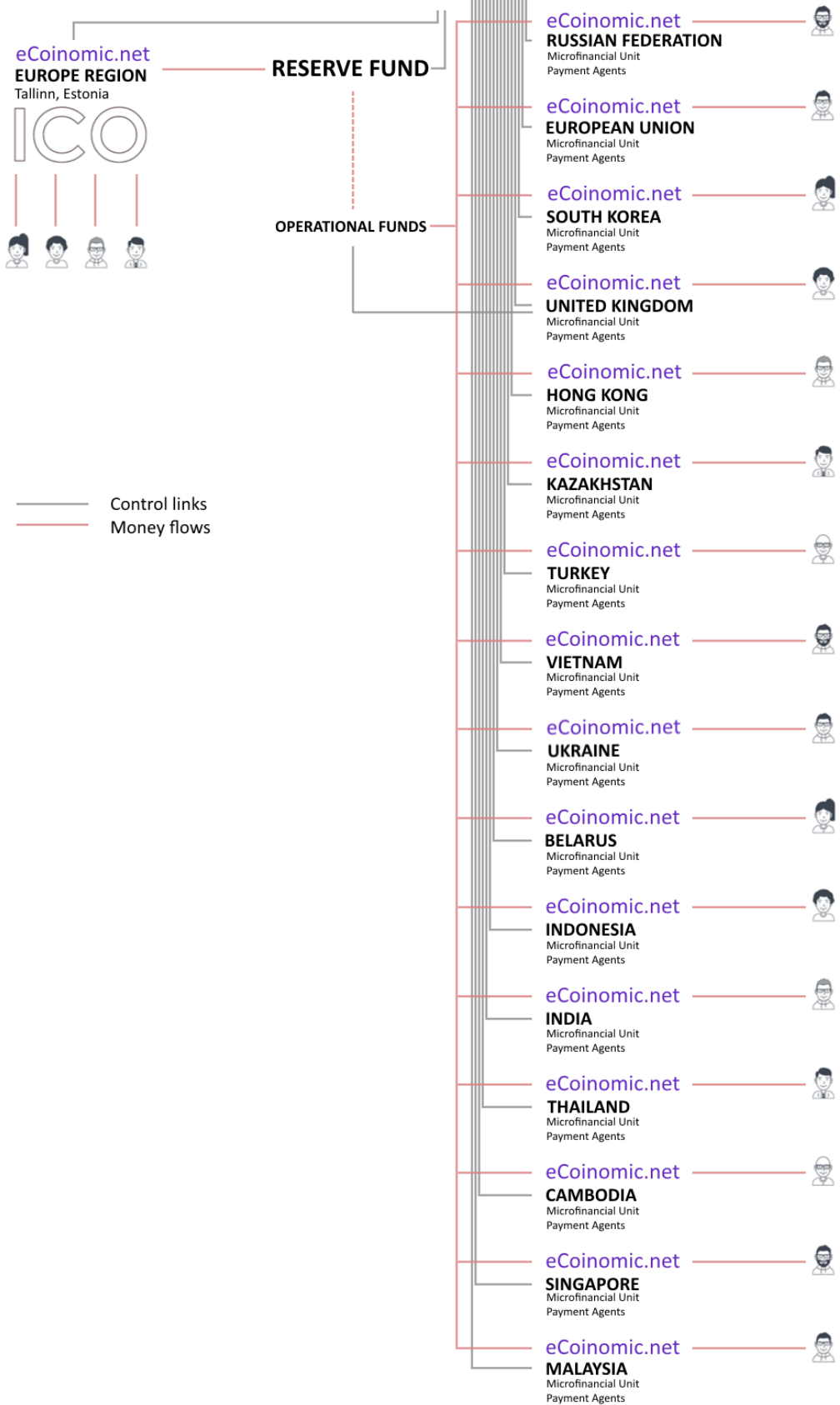
They are registered in every country where the service is available in accordance with the country's law.

4.1.3 Paying agents

Organizations that perform the functions of transferring loans to the client's plastic card issued by the bank chosen by the client, or to eCoinomic.net card.

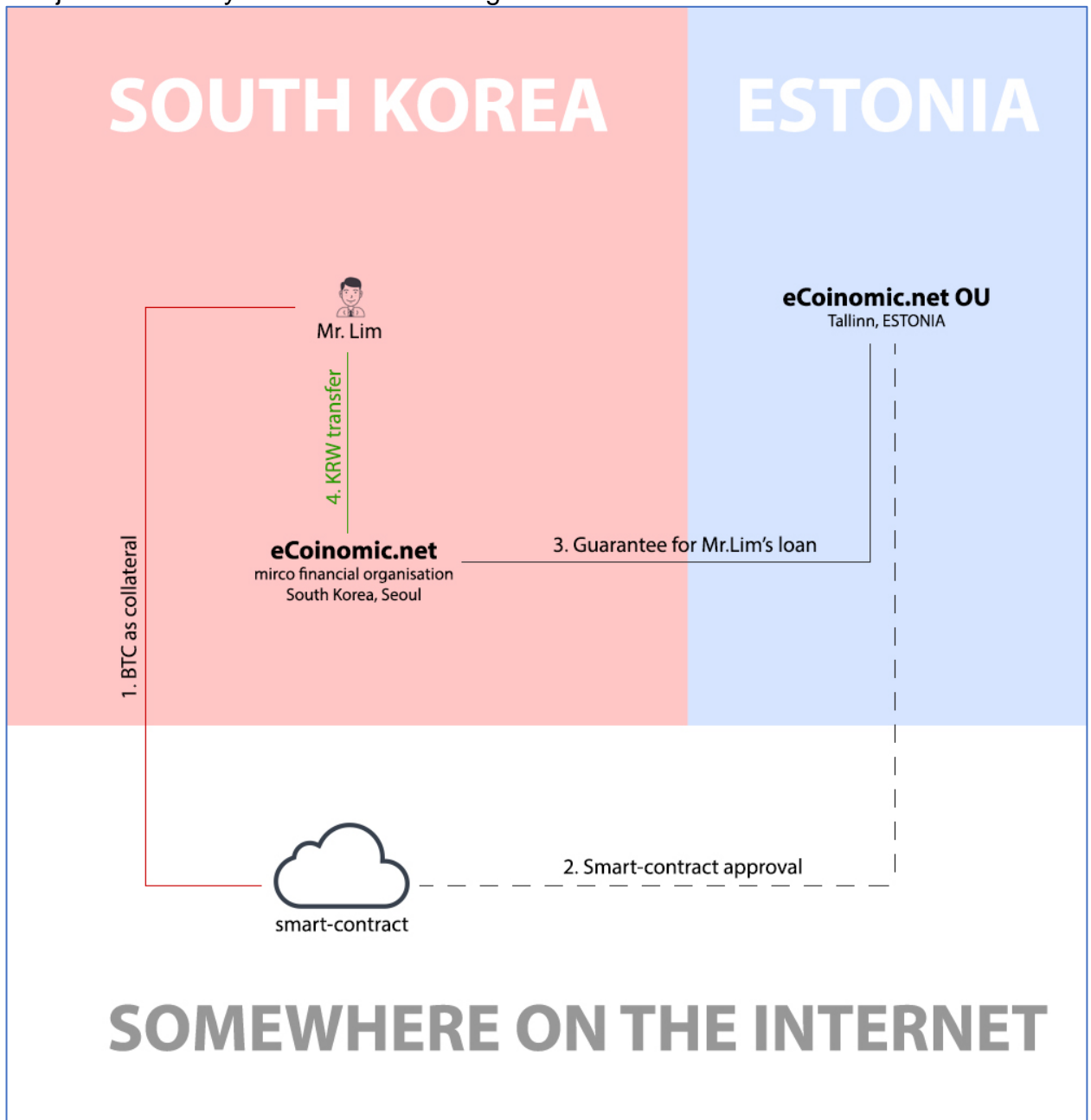
4.1.5 Unified Scheme

eCoinomic.net CYPRYS HQ



4.2 Legal Aspect of Work

The scheme below demonstrates the work with markets using the example of South Korea with a company from Estonia acting as loan guarantor. In case of such structure, **there is no legal aspect of work with cryptoassets as such** for platform users and organizations in South Korea **and, correspondingly, no risk of regulatory regulation**. It is just the activity of micro financial organization.



5 Software Architecture

5.1 Ideology

The platform is a service with an open API for connecting interfaces: from a web service to mobile applications including third-party applications. Minimum functionality is provided by a web interface executed as a site with adaptive web design.

5.2 Portal Functions

Informational. Publication of announcements, news and offers for users. Broadening and support of the user community. Accepting and processing of inquiries to support groups.

Investment. Asset management, including the platform tokens. Formation and participation in token selling and distribution.

Loan. Arranging the process of obtaining, management and repayment of loans that are granted for cryptoassets pledged as collateral.

5.3 The task of Credibility

5.3.1 Formulation

The most important task that the developers must fulfill is the task of credibility. **The user taking out a loan must be sure that his collateral will not be used or withdrawn by the platform in case he complies with the conditions of the loan agreement.**

5.3.2 Solution

In a number of occasions, the solution to the task of credibility is **reputational**.

Example: the *users of the majority of cryptocurrency exchanges transfer their assets to the accounts of exchanges without technical guarantees and obligations whatsoever.*

This approach is acceptable, but not suitable to starting and relatively unknown services — they have no reputation to convince the end user in their security. Moreover, the use of reputational scheme of credibility is a potential source of conflicts leading to arbitration and the necessity of supporting and coordinating the work of extra employees and, consequently, to additional conditions for functioning and limitations as to the platform scaling.

As an alternative, the task of credibility can be solved by means of **smart contracts**.

The Ethereum platform was selected as the performance environment for such a contract.

5.4 Basic Variant of Using a Smart Contract

5.4.1 Principle

- Own version of smart contract is created for each transaction.
- Within the smart contract a pair of keys (public and private) is generated for the network of the currency that is to be used as collateral.
- A public key may be obtained publicly.
- The user receives a link to the smart-contract and the public key, to which the collateralized asset must be sent.
- After sending the asset the collateral may be managed only from the smart contract.

5.4.2 The problem of private data management

Since all smart contracts are by definition executed in a publicly available environment, and a random user may get an access to the values of the data contained therein, it gives rise to the problem of their protection. Including and in particular – to the task of private keys storing and operating.

This problem can be solved by using the principles of secure storage by analogy with Parity Secret Store (<https://wiki.parity.io/Secret-Store.html>) and homomorphic encryption (https://en.wikipedia.org/wiki/Homomorphic_encryption).

In the simplest case, we are dealing with the situation of storing a private key with encryption for three participants (the platform, the borrower and the paying agent). And the consensus of any two participants out of three is enough to get the access to this private key.

The example of other technical solutions to the problem of collateral handling is <https://dharma.io>, <https://b0x.network> and many others.

5.4.3 Notion of a margin-call

In terms of this document section **a margin-call** is a situation of collateral unblocking, when it passes over from the smart contract to the platform that will carry out its management. The platform negotiates the received cryptocurrency at the mean current exchange price. The cryptoasset balance is returned to the internal account of the

platform user with the deduction of the part equivalent to the cost of outstanding interest and loan.

The platform is not interested in margin-call situations and does not try to make money out of them.

5.4.4 Notion of Invoked Verification

Verification is initiated by means of functions that are to be invoked by the platform or by the borrower. The confirmation comes from the smart contract, connections to external data are made via the corresponding API with the use of oracle services (Oraclize):

- Exchange rates are requested from three large exchanges (Bittrex, Binance etc.), a positive answer should be received from at least two sources.
- The borrower's current state of indebtedness is requested from the paying agent.
- Date and time can be obtained within the smart contract.

The mechanism of verifications with initialization via invocation of functions by an external service helps considerably reduce the load and extra expenses related to the actions within the Ethereum network.

5.4.5 Currency exchange rate

The system tracks down the moment when the collateral value approaches the sum of the loan and interest. The subsequent development of the situation may follow one of the three scenarios:

- The user **increases the amount of collateral** at the smart contract by sending additional amount of cryptoassets to the smart contract and by doing so he pushes off the margin-call.
- The user **fully repays the loan**, withdrawing the loan and gaining back control over the cryptoasset.
- The user **partly repays the loan** and by doing so he pushes off the boundary of launching margin-call procedure.
- The user **does not do anything**, and margin-call procedure is invoked.

5.4.6 Contract term

The loan repayment term is verified. If the term of repayment has expired, and the borrower's obligations have not been fulfilled, margin-call procedure is activated. A possibility exists for repayment term extension in case of collateral revaluation and payment of service charge.

5.4.7 Loan status

The borrower's account balance is verified at the paying agent's platform – the fact of taking the loan out and its repayment is confirmed.

5.4.8 Unblocking by agreement of the parties

The variant of smart contract unblocking by common agreement of the lender and the borrower. In this case **the collateral is transferred to the borrower.**

5.4.9 Basic functions of a smart contract

- Verification of time.
- Verification of loan status.
- Verification of collateral value.
- Contract term extension.

5.5 Operation without a Smart Contract

The platform provides and, consequently, is able to offer its users the opportunity to work without a smart contract in situations when the user trusts the system. This trust can be rewarded by lower loan rates and commissions, as well as by the opportunity of performing additional operations with collateral assets.

In this scheme, blockchain may be used as an independent and unchangeable system of storage of transaction records.

6 Competitor analysis

6.1 SweetBridge

Address: <https://sweetbridge.com>

Current state: **development.**

Volume: **0.**

6.2 NEXO

Address: <https://platform.nexo.io>

Current state: **functioning.**

Accepted collateral: **BTC, ETH и NEXO.**

Smart contract: **used for storage of transactions list (not the collateral itself).**

Volume: **~17,000,000 USD.**

6.3 Nebeus

Address: <https://nebeus.com>

Accepted collateral: **BTC.**

Smart contract: **not used.**

Volume: **~ 11,000,000 USD.**

6.4 CoinLoan

Address: <https://coinloan.io>

Accepted collateral: **BTC, ETH and others.**

Current state: **development.**

Smart contract: **not used.**

Volume: **~ 5,000,000 USD.**

6.5 ETHLend

Address: <https://ethlend.io>

Accepted collateral: **ETH.**

Smart contract: **used.**

Current state: **development.**

Volume: **0.**

6.6 Blockfi

Address: <https://blockfi.com>

Accepted collateral: **BTC, ETH.**

Smart contract: **not used.**

Volume: **7,000,000 USD.**

6.7 Lendo

Address: <https://lendo.io>

Accepted collateral: **ETH.**

Current state: **development.**

Smart contract: **used.**

Volume: **0.**

6.8 SaltLending

Address: <https://www.saltlending.com>

Accepted collateral: **BTC, ETH and others.**

Smart contract: **not used.**

Volume: **~ 39,000,000 USD.**

6.9 Conclusions

- Demand at the market of granting loans with cryptocurrency pledged as collateral is much higher than supply. The total amount of money of all services is less than 10% of the total number of loan requests. See also 1.4 Market.
- The majority of services is limited by operating in the framework of the Ethereum system with ETH cryptocurrency. Services operating with currencies other than ETH and BTC are practically non-existent. **eCoinomic.net is being designed for working with the majority of selectable cryptoassets.**
- The majority of services do not use smart contracts for establishing trusting relations with the user. **eCoinomic.net uses smart contracts for proper collateral management.**
- The effective interest rate varies greatly. Different variants of commissions are often applied.
- LTV equals approximately 60%. The adaptive model is hardly ever used. **eCoinomic.net uses risk management in the form of dynamic LTV changing and maximum loan terms.**
- The majority of services uses P2P scheme in the form of C2C or B2C. **eCoinomic.net is focused on working with own money and responsibilities, not on “matching” users and organizations.**

8 Project participants

8.1 Founders of the service

8.1.1 Aleksey Smolyanov

CEO at eCoinomic.net, CEO at Sauber Group, head and co-owner of Sauber Bank, who has been working since 1992 and has demonstrated the following financial indicators for 2017: net assets amount to RUB 2.8 billion (over USD 43 million), capital adequacy ratio is 26.5%, liquid ratio is 141.4%, current ratio is 122.6%. Before coming to Sauber Bank, he headed Saurun management company. Aleksey has more than 13 years of experience in top management. He is a graduate of Saint Petersburg Polytechnic University and North-West Academy of Public Administration, majoring in Banking and Finance. Aleksey's hobby is fencing and anti-gravity yoga.

8.1.2 Maksim Akulshin

Maksim has been a member of the Management board of Sauber Bank since 2012. Also, since 2009, he has headed the Information and Communications Systems company (SIIS), which offers a broad range of services with the focus on state-of-the-art complex data processing and web-analytics. Maksim has held senior positions for over 9 years. Relying on own diversified experience, he combines the functions of co-founder and senior architect in eCoinomic.net. In his spare time Maksim writes fairy tales and makes illustrations for blockchain encyclopedia, which is now being prepared.

8.1.3 Vitalii Topor

In 2013 Vitalii became Director for Operations of a micro financial company “Dengi budut”. In 2015, he became Chief Executive Officer at the Leningrad Pawnbroker's network. In 2016, he initiated the Rapticredit project with a goal to come in the European financial market, having created a unique platform for online granting of micro loans via a mobile application. Vitalii took part in creating the eCoinomic.net project in 2017 and became the company's Chief Operations Officer. Vitalii is a graduate of the Baltic State Technical University and Saint Petersburg State University majoring in Management and Finance and Services for Finance Management. Moreover, he studied the principles of international trade in Educational Services International Incorporated (California, USA)

and Economics in HOGSKOLEN I BODO (Norway). Vitalii goes in for boxing and takes interest in numismatics.

8.1.4 Maria Smolyanova

Maria has more than 10 years of experience in top management positions in different companies. In 2008, she became Chief Operations officer at SATIS Ltd. The company has operated in the logistics sector since 2006, handling flows of goods from South-Eastern Asia, Europe, USA, South America. In 2013, Maria became Chief Executive Officer at a micro financial organization “Dengi budut”. In 2015, she became Chief Development Officer of the Leningrad Pawnbroker’s network. In 2017, Maria was one of the co-founders of the eCoinomic.net project and became Chief Business Development Officer. Maria is a graduate of Cass Business School (London), which is a Triple Crown-accredited business school with a leading position among the world’s best business schools and programs, where she got Executive MBA degree. Yoga and CrossFit are among Maria’s hobbies.

8.2 Organizations

8.2.1 Sauber Bank

Sauber Bank, JSC was founded in 1992 on the basis of one of the oldest banks in the USSR. Its monthly turnover in client’s accounts is RUB 7 billion (over USD 100 million), there are 497,136 active client’s accounts, 147,120 active plastic cards of the Bank, the amount of granted loans is RUB 3 billion (over USD 46 million), the amount of net assets is RUB 2.8 billion (over USD 43 million).

8.2.2 Information and Communications Systems company, LLC

Information and Communications Systems company, LLC (SIIS) is a private company that was founded in May 2009. SIIS develops software projects and telecommunications systems. Highly skilled programmers and systems administrators work in the company, they have many years of experience in the sphere of information technologies. SIIS offers a broad range of services with the focus on state-of-the-art complex data processing and web-analytics. During 2017 the company’s flagship product called Survey-Studio registered 2,300+ analytical projects with more than 1,500 questionnaires containing over 64,000 questions. The system has registered a total of more than 6,500,000 interviews with over 67,000,000 answers collected. To date, Survey-Studio has over 190 registered clients including large private and public organizations, such as Russian Public Opinion Research Center (VTsIOM), Public Opinion Fund (FOM), NAFI Analytical Center, Validata research company.

8.2.3 Micro financial organization “Dengi budut”

Micro financial company “Dengi budut” has operated at the territory of the Russian Federation since April 2011. Dengi Budut is a credit fintech company that has built up own scoring system, has a high-skilled collector team and is equipped with cutting-edge technical solutions. Within a period from 2011 till 2018, the company broadened its network throughout the territory of the Russian Federation, its new offices having been opened in 30 country’s largest cities. Thanks to the performance of own product called Installment Consumer Loans, the company was listed among the key players in the sector: its customer retention level is 62%, its rate of return by EBITDA is 41%, and NPL 90 + 12% in the course of 2017 financial year.