



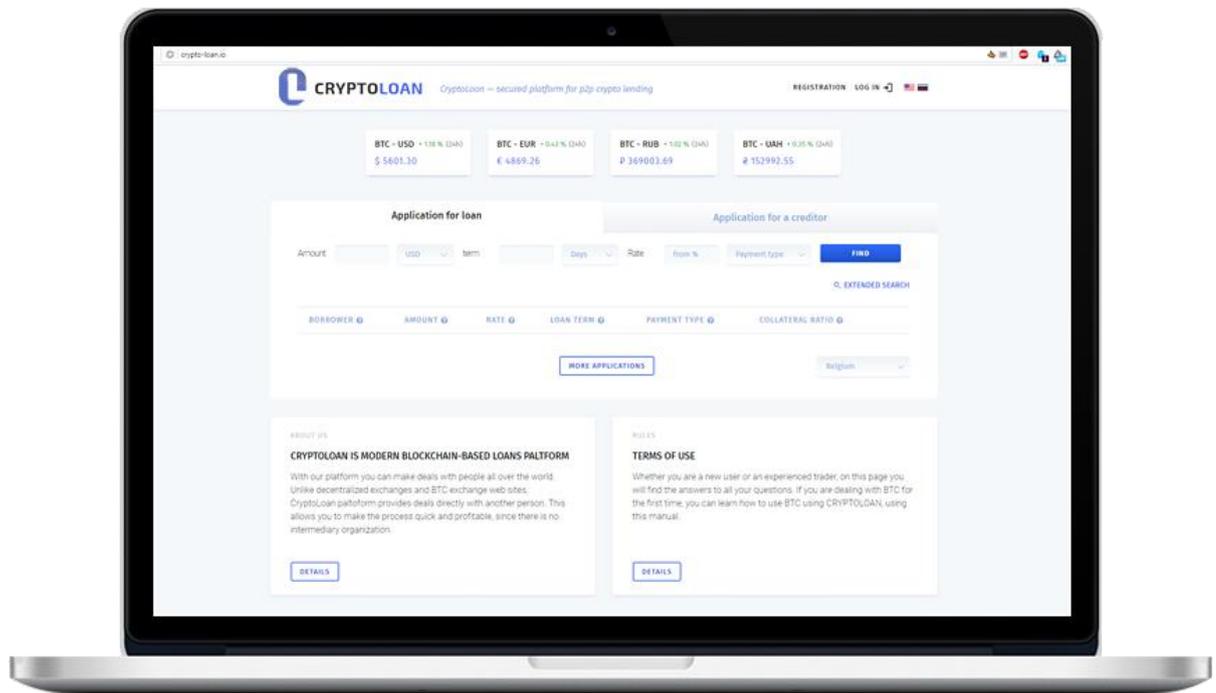
**CRYPTOLOAN**

**P2P crypto-backed loans platform**

WHITEPAPER  
v. 0.1

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## 1 Abstract

Nowadays direct cryptoasset sale is still the most affordable way to provide the owner with required fiat currency, even if such a need is short-term. Cryptoasset sale (and further purchase) entails both fees and various risks, including potentially profitable trading position losing risk. Cryptoasset sale (and further purchase) entails fees and various risks, including potentially profitable trading position losing risk.

Marginal lending, which does not involve the cryptoassets exchange for fiat currency is the only lending type is currently used by cryptocurrency exchanges. All available cryptoasset holder's funds remain limited by exchange transaction scope.

CryptoLoan's proposition is using your cryptoasset more flexibly and efficiently. The platform provides an opportunity to save potential cryptoasset cost growth for their owner while providing required significant costs-free fiat money quickly. Our credit model provides its creditor – fiat money holder, who provides own capital secured by liquid collateral with several advantages.

Traditional banking institutions require considerable time for scoring and various checks to obtain a loan. In addition, the bank does not accept cryptoassets as collateral due to their volatility and uncertainty in the legal field. We propose taking all the crypto-economy advantages right now while classical financial system just starts to slowly adapt to innovations.

## 2 Our Vision

Cryptoasset sale on the exchange is the most popular way to get fiat currencies. Cryptocurrency cost is able to significantly increase literally within a week which may result in significant money amount lose by the holder.

CryptoLoan provides an alternative. Our system provides cryptocurrency owner with the opportunity to get a loan in fiat money form secured by cryptoasset as a collateral. Collateral will remain in the secure CryptoLoan system till the full loan pay out. The pledged asset will be returned to the borrower once the loan is fully paid out within the agreed period. The borrower will be able to get loan funds in any fiat currency, in any way convenient for him, and use them at his discretion.

Since its launch, the CryptoLoan will accept Bitcoin as collateral for a loan in fiat currency. Fiat currencies list to provide the loans in is not limited.

Besides we are going to cover all popular cryptocurrencies in accordance with the CryptoLoan development. CryptoLoan has several advantages compared to traditional financial institutions which are engaged in loans provision. The lender is forced to perform a huge operation amount to secure the transaction in the traditional collateral scheme, including check the borrower's solvency, assess the collateral, transfer and store the borrowers' assets. It may seem that the lender's cost are not important for s the borrower. However, it should be remembered that all lender's expenses are included in the interest rate, which result in loan cost increase.

CryptoLoan resolves this issue. Our system ensures the loan body return, as well as interest for the loan use and makes the lender free of additional actions and risks. As a result, the borrower will get a loan at a more attractive rate and will not spend time for signing documents, bank visiting, waiting in queues and property valuations conducting.

Thus, intermediaries are not required anymore. This is an advantage for both transaction parties: the lender does not need to independently assess the risks while the borrower receives a loan without reference to the bank's credit history. The ability to eliminate intermediaries is the key blockchain technology value which justifies the efforts to introduce it into business processes, according to McKinsey<sup>1</sup> consulting company research.

It is required to have a sufficiently impressive start-up capital and be aware of the profession features in order to become a successful creditor within the traditional system. CryptoLoan provides an opportunity for each individual or legal person who has fiat funds to become a lender and he undertake loan transaction-associated risks. The user, who proposes to lend, sets the interest rate, loan amount and term at his own discretion while the system is looking for a borrower interested in such terms.

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<sup>1</sup> <https://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/blockchain-beyond-the-hype-what-is-the-strategic-business-value>

### 3 Market

CryptoLoan is a part of fast-growing financial (English FinTech) industry part worldwide. Technology CryptoLoans in the financial services field are actively evolving due to blockchain technologies rapid growth. Financial industry is deemed one of the most promising and sought-after areas.

It is worth mentioning investment scale in the current area. Fintech start-ups raised a total of \$ 2.7 billion in 226 trades in the first quarter of 2017, according to CBInsights, published in Global Fintech report<sup>2</sup>: Asian start-ups raised \$826 million in 42 trades; European startups raised \$667 million in 73 trades; American - \$ 1.1 billion in 90 transactions.

Most of global financial companies are going to expand Fintech partnership since 88% are worrying because of the risks that threaten to their business due to technological CryptoLoans. Besides 77% of surveyed companies are going to introduce blockchain technology into their business processes by 2020. This fact confirms that financial innovations are an urgent task.

CryptoLoan contributes to the global fintech industry development. The platform goal is to provide each cryptocurrency owner with an opportunity to store own virtual assets and get a loan while having appropriate terms. This will become a new step in the entire credit industry development.

CryptoLoan is an innovative territorial restrictions-free technological CryptoLoan. The system operation scope is the whole world. The platform works with large and small loans. The minimum and maximum loan amount is not limited. This will provide an opportunity to attract both individuals and companies to the platform.

FEATURE	CRYPTOLOAN	NEXO	SALT	BLOCKFI
Receiving a loan within a day	✓	✓	✓	✓
Platform works worldwide	✓	✓	—	—
Rates determined by market demand	✓	—	—	—
Loan to collateral ratio (LTV) > 50%	✓	—	—	—
Ability to grant loans to other users	✓	—	—	—

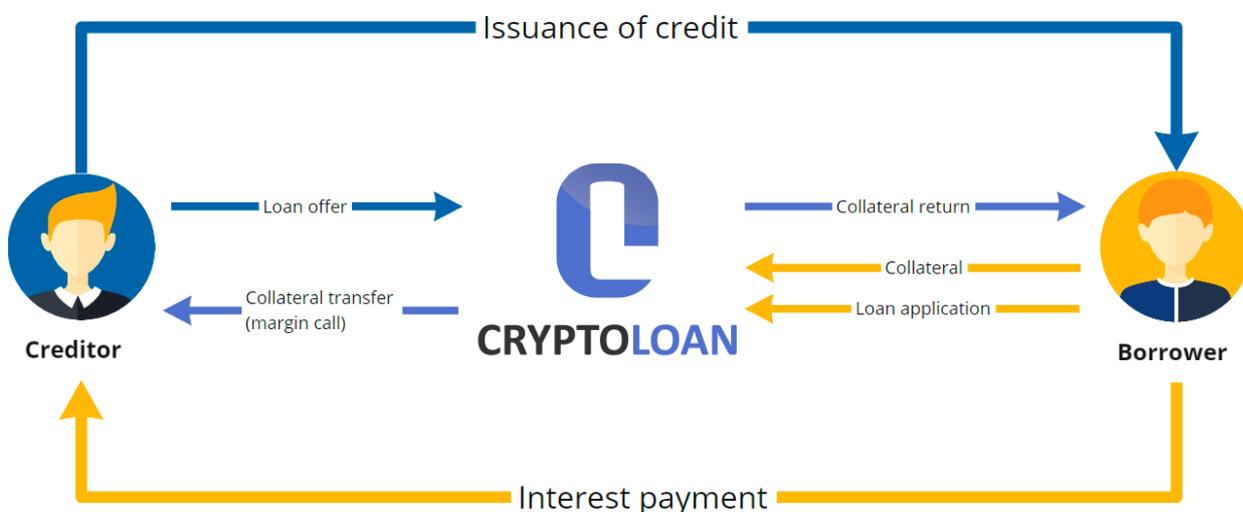
<sup>2</sup> <https://www.pwc.com/gx/en/industries/financial-services/assets/pwc-global-fintech-report-2017.pdf>

## 4 CryptoLoan Platform

### 4.1 Technical Description

The period, which a loan can be provided for, is limited to 365 days. Both borrowers and lenders determine the optimal transaction duration from 1 hour to 12 months. Such a flexible approach will ensure comfort for users and their interest growth.

Both lenders and borrowers together determine the optimal interest rate, which will be appropriate for the current market conditions. The loan interest may even be negative (see 4.2 Lender and Borrower). Collateral and creditors competition- associated cost absence will contribute to getting more loyal conditions.



The cryptoasset use as a collateral simultaneously resolves several issues typical for a standard lending process in banks:

- Collateral assessment - the current cryptoasset value may be assessed instantly and costly expertise-free in automatic mode;
- Collateral revaluation - collateral revaluation in order to update the loan/collateral ratio may be performed as frequently as required costs-free way;
- Collateral property registration - none registration actions, bureaucratic delays and various duties payment are required; all collateral records are stored in blockchain and are publicly available to all transaction participants;
- Collateral implementation - collateral can be sold at current market value within a few hours (or even minutes) in case of fail to pay out the loan or maintain the loan/collateral ratio at a certain level by borrower.

Some cryptocurrencies use advantages, including the ones mentioned above, in traditional financial transactions are noted in THE (R)EVOLUTION OF MONEY Accenture consulting company's report<sup>3</sup>.

The following funds withdrawals methods are available for borrowers within the system by prior agreement with the lender: C2C, PayPal, SWIFT, SEPA, instant transfer from a credit card (Visa Money Transfer and MasterCard MoneySend) and so on.

CryptoLoan operation principle can be viewed from two points of view - lender's and borrower's. But the system does not limit the users' role in the CryptoLoan. The lender may become a borrower and the borrower may become a lender at any time.

## 4.2 Lender and Borrower

### Lender

Any individual or legal entity possessing available funds in fiat currency may become CryptoLoan platform lender. None additional permits to make transactions within the CryptoLoan are required. A user must submit a request in the system in order to provide a loan. The lender creates a loan request which contains the following data:

- Maximum loan amount;
- Loan currency;
- Interest rate according to the current market conditions;
- Loan term;
- Additional parameters to discuss in the transaction, such as early or partial repayment opportunity, the lower threshold amount for the loan.

CryptoLoan supports competition within the system, thus avoiding unprofitable offers for both parties. The offer created will expect for a response request from the party interested in. The borrower's cryptocurrency asset becomes the obligation performance guarantee and is stored in CryptoLoan system when the requests are matched and the transaction is done.

The lender gets interest and the loan body back within the agreement terms signed with the borrower. The cryptoassets pledged by borrower will be offered to the lender as a debt coverage if the borrower failed to fulfil own obligations. Thus, the lender is borrower default-protected.

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<sup>3</sup> [https://www.accenture.com/t20171116T025715Z\\_w\\_us-en/acnmedia/PDF-63/Accenture-Evolution-Money-Blockchain-Digital-Currencies.pdf](https://www.accenture.com/t20171116T025715Z_w_us-en/acnmedia/PDF-63/Accenture-Evolution-Money-Blockchain-Digital-Currencies.pdf)

CryptoLoan provides an opportunity to submit a request to get new loans automatically once the old ones have been repaid. Thus, the funds available will always maintain overall liquidity on the platform.

## **Borrower**

The borrower submits a request within the conditions he is ready to make a transaction in order to get a loan. The platform web interface will provide a real current loan offers situation as well as help to pre-determine the parameters for getting a loan faster.

The borrower's expenses to pay out the interest can be compensated by the cryptocurrency rate increase. Thus, borrowers have an opportunity to both save their cryptoassets and earn.

Request parameters to get a loan are provided below:

- The cryptoassets amount to secure collateral;
- Interest rate within market conditions;
- Credit term;
- Additional options: partial repayment option, early redemption opportunity etc.
- The loan amount ratio to the current market cryptoassets value (LTV - *Loan to Value*). The recommended margin ratio of 70% will be set in connection with the cryptocurrency rate volatility. This means the borrower will be able to get a loan within 70% of the cryptoassets market value.

This recommended restriction will be implemented to reduce the risks the lender may have in case of collateral enforcement. The borrower chooses the offers independently and assesses possible risks, depending on his assets amount. If both parties realize all the transaction risks, they will be able to independently change LTV parameter restrictions-free way. The system places the request once it is satisfied among other ones to be considered by potential lenders.

The borrower is provided with an opportunity to pay out the loan the same currency it was received in, unless otherwise agreed upon the transaction creation. If he fails to pay out the loan in full or in part, the entire collateral or part of it will be intended to pay out the obligations by the creditor.

## **4.3 Risk-management**

Cryptocurrencies are a highly volatile asset compared to traditional markets. That's why we have developed a mechanism to protect the users' interests from possible risks associated with fluctuations in the cryptocurrencies exchange rate.

During the transaction term, CryptoLoan system calculates the loan-to-Value Ratio (LTV) ratio. The funds ratio provided to the collateral amount changes in case of making any

change in the exchange rate. The system sends a warning to the borrower about cryptocurrency cost change when the ratio starts to decrease.

The system will warn the borrower in advance about the need to replenish the balance or repay the debt if LTV ratio approaches Margin Call situation (when the collateral value tends to the total loan debt amount. The system transfers the mortgage to the lender to secure the transaction ) if the borrower fails to respond.

CryptoLoan uses high-frequency market situation monitoring on the largest cryptocurrency exchanges. This allows users to be informed about rate fluctuations much earlier than LTV ratio reaches a critical level.

We take a great responsibility in user data storage and confidentiality security. In addition, the platform is has the task to securely store and transfer collateral between the borrower and the lender, which requires the measures set development in order to ensure safe cryptoassets operation.

That's why, a comprehensive security audit was conducted in accordance with the ISO 27001 standard with the Active Audit Agency's<sup>4</sup> specialists involvement before CryptoLoan platform launch for public use. The CryptoLoan website was tested in accordance with OWASP web app security guidelines<sup>5</sup>.

We cooperate with one of the leaders in the blockchain apps infrastructure organization – Blockcypher company<sup>6</sup> in order to implement safe work with the cryptocurrency, transferred and accepted as collateral. Blockcypher customers include such famous CryptoLoans as Coinbase, Xapo, Shape Shift, Bitrefill and many others.

All cryptocurrency transfer operations between users are carried out on a separate secure server, which will not be compromised even in case of a successful CryptoLoan platform web server attack. Security monitoring and vital data backup system ensures database and information safety on the current settlements status between users.

## 5 How It Works: Use case

Let's go through the recommended borrower transaction example to better realize the CryptoLoan operation way.

The user has got 10 Bitcoins and he needs fiat currency. He does not want to sell cryptocurrency on the stock exchange since its rate may increase rather soon.

Suppose that 1 Bitcoin costs 5,000 USD at the current rate, a total of 10 Bitcoins cost 50,000 USD. This amount can become a collateral for a loan transaction. The recommended loan to collateral (LTV) ratio in CryptoLoan system is 10-70% of the borrower's cryptoasset market

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<sup>4</sup> <http://auditagency.com.ua/en/vnedrenie-iso-27001/>

<sup>5</sup> [https://www.owasp.org/index.php/OWASP\\_Testing\\_Project](https://www.owasp.org/index.php/OWASP_Testing_Project)

<sup>6</sup> <https://www.blockcypher.com/index.html>

value. Accordingly, the borrower will be able to borrow from 5,000 to 35,000 US dollars according to the system recommendation.

Let's consider the case with the maximum recommended loan amount of 35,000 USD and a security deposit of 10 BTC at the 5,000 USD rate for one year. The security deposit is 10 BTC with an estimated value of 50,000 USD.

Three main scenarios are possible during the contract term:

1. BTC/USD rate will remain the same.
2. BTC/USD rate will increase;
3. BTC/USD rate will decrease

**Action options in case of Bitcoin price remains 5000 USD:**

1. Pay out the entire loan amount of 35,000 USD +% and get 10-1% BTC back.

**Action options if Bitcoin price increases to \$ 6,000 and the secured asset value is \$ 60,000:**

1. Pay out the entire loan amount of 35,000 USD +% and get 25-1% BTC back.

The user provided with the loan sets the "alarm clock" in advance which is a reminder to check the collateral status while reducing the difference between the collateral and the total debt. For example, he receives SMS and/or e-mail notification if the difference is less than or equal to 15%, 10%, 5%, etc.

**Action options in case of Bitcoin price decrease and if collateral value tends to 35,000+% (recalculated daily) USD:**

1. To pay out the entire loan amount of 35,000 USD +% and get 10 BTC-1% back.
2. Replenish collateral with BTC cryptoasset in order to restore Loan-to-value ratio (LTV) up to the level of 70% or higher.
3. Do nothing: in this case, the collateral will automatically be used to pay out the debt to the lender if secured cryptoasset value becomes equal to the loan body +%,

Everything is decided transparently and fairly with respect to both transaction parties in the case of a collateral value decrease and the borrower's response absence unlike the traditional system. In addition, the system cares of the borrowers welfare and informs them about the negative changes in the market if available in advance. Those companies which have already being involved in lending have an opportunity to expand their capabilities and customer base while using CryptoLoan.

## 6 Our Clients

P2p system-based platforms will always be popular among users since they eliminate unnecessary intermediaries and create a direct channel between buyers and sellers. This is especially true of p2p lending market<sup>7</sup>. In this case, p2p transaction subject can be both an individual and a company.

CryptoLoan offers mutually beneficial cooperation to startups engaged in funds raising via ICO. A startup usually has a large cryptocurrency funds amount after successful ICO completion, but still needs to get funds in various fiat currencies to implement own CryptoLoan and various current expenses. Thus, a startup has an opportunity to use CryptoLoan system and borrow the necessary amount in order to avoid the irrevocable cryptoassets liquidation.

CryptoLoan platform may also be relevant among the miners. Successful mining requires constant equipment and payment improvement for a large electricity consumed amount, otherwise the farm stop producing the desired result. The main miners costs in most cases are in fiat currencies, at the same time 100% of the income from mining comes in the cryptocurrencies form. As a result, miners are forced to eliminate their cryptoassets. CryptoLoan will provide them with an opportunity to save the cryptocurrency for further sale at the most optimal rate and get the fiat funds required to ensure the mining process.

Both banks and intermediaries are not required anymore - users choose the loan interest rate and term themselves while the responsibility to the lender is fully ensured with a liquid collateral.

We are going to provide API (application programming interface) for CryptoLoan platform, which may be integrated into own online services by the lenders. Thus, lenders will be able to provide the loans while using CryptoLoan directly on their own web resources.

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<sup>7</sup> <https://www.investopedia.com/articles/financial-theory/08/peer-to-peer-lending.asp>

## 7 Roadmap



### Q2 2018

- MVP development
- MVP completion
- Marketing planning



### Q3 2018

- Alpha version completion
- Application feature expansion
- Application security testing



### Q4 2018

- Platform functionality beta testing
- Platform security audit completion
- CryptoLoan platform presentation at RIW 2018



### 1st quarter of 2019

- Official CryptoLoan platform launch
- Referral program for users
- SMS notifications sending service



### 2<sup>nd</sup> quarter of 2019

- Cryptocurrencies number accepted as collateral increase (ETH, LTC, XMR, DASH)
- Loan deferment/partial pay out opportunity for the borrower
- Additional services for users: premium ads, fixed orders, auto update



### 3<sup>d</sup> quarter of 2019

- Mobile app development (Android, IOS) and API access
- Improved usability and interface redesign



### 4<sup>th</sup> quarter of 2019

- Co-financing loans implementation (syndicated loan)
- Blockchain transaction validation implementation (Multisig Escrow, smart contract)
- Lender risks hedging on the transaction made at the stock exchange (placing orders for the collateral implementation in case of borrower Margin call)

## 8 Conclusion

We are sure blockchain and cryptocurrency technologies require much deeper integration into existing financial and public relations than we see today in order to obtain recognition. Unfortunately, lot of projects in the current area while striving to sit on two chairs began to sacrifice the key technology benefits including decentralization, censorship absence, users' confidentiality in favor of the existing outdated system, which is trying to keep full control over all our life spheres at our expense.

Our project is simple idea-based - the ability to provide and borrow money as if you borrowed from your friends. At the same time, technology provide an opportunity to trust anyone on the planet just like to your friend, and you don't even need to leave home to make s small deal.

We believe that in case of everyone provision with such an opportunity will radically simplify everyone's life who has ever needed a loan. Whether this is not the main technologies purpose, is it?



[www.crypto-loan.io](http://www.crypto-loan.io)



<https://twitter.com/LoanCrypto>



<https://t.me/CryptoLoanOfficial>