FinWhale

WHITE PAPER

P2P PLATFORM:
CRYPTO/FIAT CREDIT | STEAM GAME CREDITS
| LIQUIDITY PROVIDER

Версия 2.8

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Introduction

INTRO

FinWhaleX - is P2P lending platform that provides access to credit in any place and at any time on the basis of blockchain technologies, machine learning and Big Data.

Two billions people worldwide do not have access to a bank account or financial institution and are forced to use alternative payment methods to conduct transactions. This signals a huge vacuum to facilitate access to financial transactions, which, once completed, remove the huge barriers to economic growth around the world.
To solve this problem, the World Bank has set a goal to provide universal access to official financial services by 2020.

In recent years, technology innovators have made huge leaps in the direction of bridging the gap, allowing people to borrow and lend without using an official financial institution as an intermediary through peer-to-peer(P2P) lending.
Traditionally, individuals and small businesses that want to get a loan, had to apply for a loan through a bank.

But with P2P lending, borrowers take loans from individual investors who are willing to provide their own money at an agreed interest rate.
Those who want to avoid charging high interest rates or who may be rejected for a loan application because of a bad credit history may choose for this alternative method of borrowing.

A borrower's profile is usually displayed on a peer-to-peer online platform that investors can evaluate to decide whether they want to risk lending their money.
These platforms benefit both borrowers and investors: lenders receive interest on loans, which can often exceed the interest earned from savings accounts or return on investment in the stock market.
Meanwhile, borrowers benefit from a better interest rate than the one they would otherwise receive from the bank, or from access to financing, for which they could not otherwise be approved.

This eliminates the need for third-party participation in a number of transactions, rationalizing financial services and overcoming barriers for non-bank banks.
The world's first P2P credit platform, Zopa, was launched in 2005 in the UK, and since then, P2P platforms have achieved extraordinary growth and have become a vast global industry.

This is not surprising, since it is able to provide 2 billions access to credit throughout the world.

However, no region in the world even came close to such an explosive and

unprecedented growth in P2P lending, which was noted in the world's second largest economy: China.
In 2007, China first released the P2P platform, and by 2013, that number had soared to 800. By May 2018, 6,142 platforms were operating in China.

In 2016, over 3.4 millions investors were registered on China's P2P platforms, while the increase in the amount of capital involved in P2P lending increased from 21 billions Yuan (3 billions US dollars) in 2012 to 1,411 billions Yuan (216 billions US dollars) in 2016.
Growth of P2P platforms in the West: in 2016 in the UK there were only 9 authorized companies offering crowdfunding platforms based on loans, in the European Union there were 24 platforms with a volume of 3.2 billions Euros, and in the USA - 25 with a volume of 29 billions dollars. According to Dr. Chuanman You, a FinTech expert based at Tel Aviv University, loans emerged in the Oxford Capital Markets Law Journal report on the recent development of FinTech regulation in China.
China's phenomenal growth in the P2P lending industry is due to both insufficient financing of small and medium-sized enterprises (SMEs) and low-income households by traditional banking institutions, and, on the other hand, high return on P2P investments. According to Dr. You, the lending industry has attracted capital like private and institutional investors.

While financial constraints for SMEs and low-income households are a global problem, the problem is exacerbated by the dominant economic structure of China's state-owned enterprises combined with repressive financial policies.
FinTech's unprecedented boom has turned China into one of the world's largest online markets for alternative financing in terms of transaction volume, with P2P lending at the forefront of the growth sector.

The explosive growth in lending to P2P has freed China's financial market, but with great innovation there is great uncertainty.
The growth of this sector has led to a number of credit risks, business operations risks and information security risks that can provoke market, regulatory and even management failures.

In 2016, almost 50% of Chinese P2P platforms were problematic, often fraud, flight of funds, and illegal fundraising were reported. By May 2018, about 2058 platforms encountered liquidity problems or other more serious problems.
China's initial lack of a comprehensive regulatory regime has contributed to the phenomenal growth of P2P platforms, but it also generated huge market risks that could jeopardize the sustainable development of the industry.

Market potential

According to a report published by Allied Market Research in March 2017, the market of peer-to-peer lending (p2p) in 2015 was estimated at 26 billios USD and, according to forecasts, by 2022 will reach 460 billions USD, increasing by an average of 51.5% per year. At the same time, in 2015, small business loans dominated the market and it was expected that the market share of consumer loans would grow at a high rate. Also, according to a study of Adroit Market Research dated May 8, 2019 , the capacity of the global p2p lending market in 2017 was estimated at 231 billions USD with a potential threefold increase over the next 8 years (until 2025). It is noted that the demand for the products of this market is particularly impressive in the North American and Asian-Pacific regions.

The p2p interaction format is already well known to younger generations of users. A significant audience uses p2p payments in the Chinese messenger WeChat, a large audience at p2p BitTorrent file sharing. The success of p2p lending platforms around the world is also impressive.

We consider the launch of our product on the market to be timely, it will rely on the already formed significant and prepared audience of consumers.

Problems of the lending market

Most people in the world do not have access to bank lending, and those who have faced problems:

1. Long time to process an application and make a decision;
2. The absence of a single international bureau that can conduct a customer credit analysis;
3. High rates for customers from developing countries and low rates for customers from developed countries.
4. Low level of technology penetration, in some countries there is no possibility of loading data into the credit bureau.
5. Lack of financial instruments to finance projects and urgent needs;
6. Restrictions associated with investing in certain areas.
7. Legal and organizational problems do not allow private investors to provide financial services.

[1] https://www.alliedmarketresearch.com/peer-to-peer-lending-market
[2] https://www.alliedmarketresearch.com/press-release/peer-to-peer-lending-market.html
[3] https://adroitmarketresearch.com/industry-reports/peer-to-peer-p2p-lending-market
[4] https://www.theglobaltreasurer.com/2017/01/26/p2p-lending-strikes-chord-with-millennials/
[5] https://www.forbes.com/sites/oliviergarret/2017/01/29/the-4-best-p2p-lending-platforms-for-investors-in-2017-detailed-analysis/#1144ce7552ab

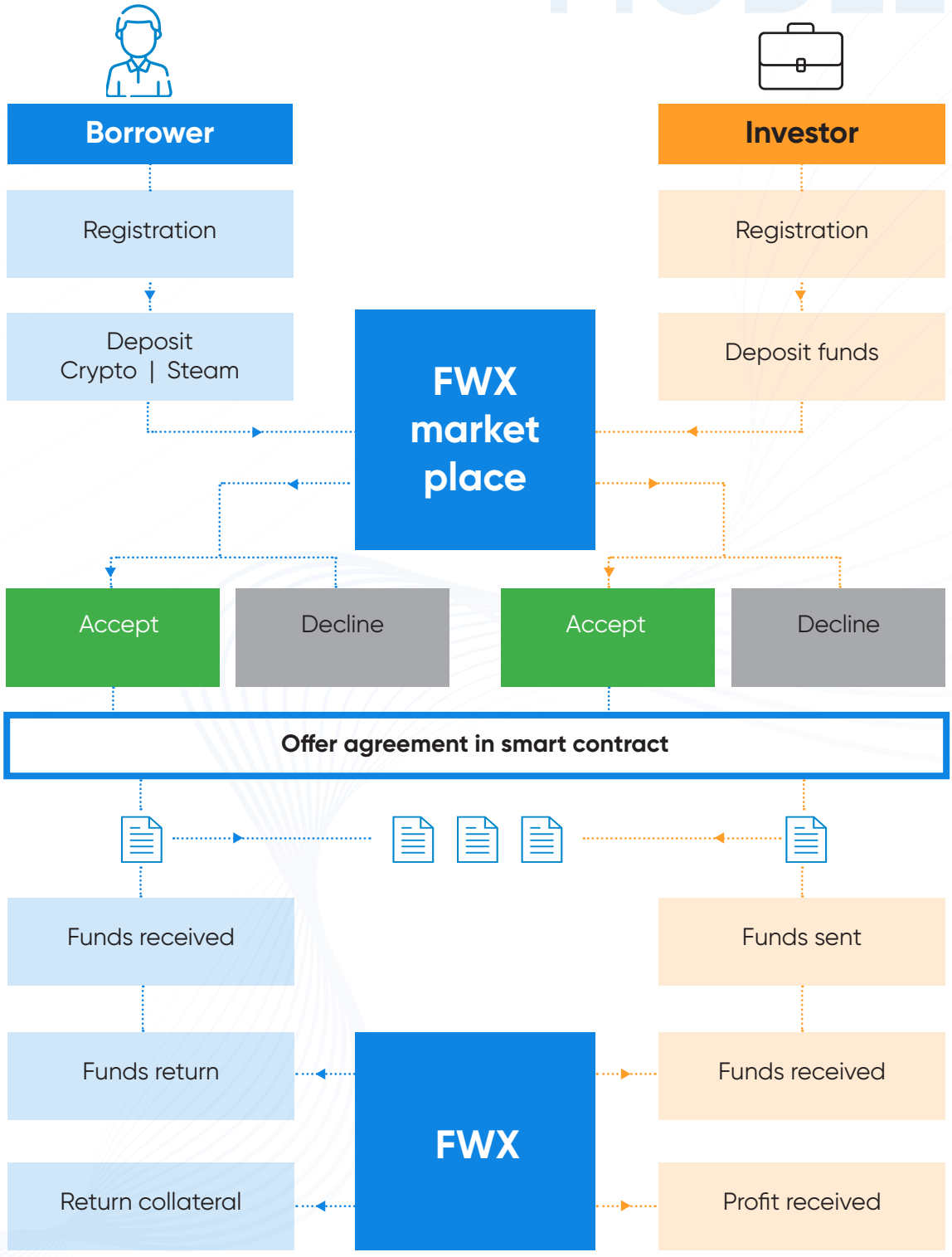
Despite the growing number of digital assets, traditional institutions treat them with suspicion and apprehension. It is difficult for large organizations to add something new to existing processes, and fundamentally changing the development vector is not a trivial task. The use of outdated methods for assessing client solvency in combination with a conservative approach to the choice of technologies used does not allow them to quickly adapt to a rapidly changing world, and the investigator expands the boundaries of credit markets. These problems not only limit the effective flow of assets, but also lead to ignoring a large segment of the market.

To solve these problems, we are launching the FinWhaleX platform whose goal is to provide people with easy and fast access to financial instruments and markets. Simplify and speed up the lending procedure anywhere and anytime.

Credit model

FinWhaleX - p2p credit platform.

FinWhaleX - p2p lending platform. Lenders and borrowers interact as equal



participants. Each party has an understanding of favorable conditions for itself and makes a deal if it sees a suitable counter offer. At the same time, compared with commercial banks, lenders' claims on borrowers are less stringent, and the period to receive a loan is shorter.

The pledge is highly liquid assets. But with unsecured lending, the borrower can demonstrate his decency and the degree of reliability through a credit history and his risk profile.

FinWhaleX brings together the private interests of the lender and the borrower. We organize technical support of transactions on the basis of smart contracts in decentralized registries that securely carry out cash flows and digital assets. We also maintain a credit history of users, calculate their risk profiles, monitor the current status of loans issued, provide information support to the parties, notify users of insufficient collateral, and implement collateral to cover costs if necessary.
The above functionality is the core of our platform. But we set ourselves the task of implementing it as a PaaS (Platform as a Service) for crypto-burg. Namely, as a liquidity provider for margin trading.

We will provide the exchanges with a financial environment where the user will increase the balance of his trading account based on his FinWhaleX risk profile, personal preferences for lenders and / or collateral.
A partner exchange can quickly provide a functional solution in which its users will have access to additional liquidity and can diversify the range of their trading strategies. For example, increase the size of an open position or diversify it, or hedge a position with another financial instrument. As a result, an increase in trade turnover and commission fees of the exchange. At the same time, the exchange will be able to calmly concentrate on its own tasks in the organization of tenders.
At the moment, agreements have already been signed with some market participants and negotiations are underway with leading Asian stock exchanges. Powered by the mechanism of work with the exchanges will instantly increase the number of users and transactions on the platform and without great expense and effort to connect other financial services around the world.

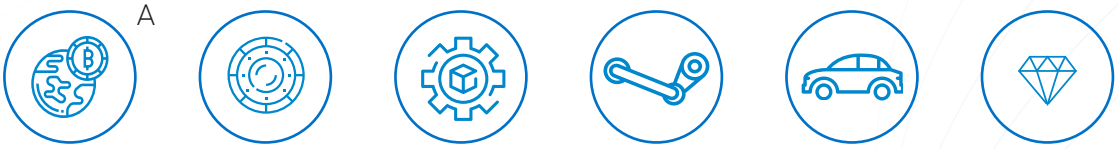
A further logical development of the crediting model is the expansion of collateral options. For example, digital assets from the gaming industry (gaming skins) or classic tangible assets (cars, jewelry, etc.).

Products

P2P secured loan

Loans for individuals and legal entities secured by a user (as a deposit may be: cryptocurrency, token , other digital assets, Steam gaming equipment, car* or jewelry*).

A



Crypto currency | Tokens | Digital assets | Game inventory Steam* | Auto* | Jewerly*

large number of digital assets are now being used as a long-term investment, as a means of preserving value in the medium or long term. In this case, the value is "frozen", it cannot be used for current needs.

By not selling existing assets, the owner can take advantage of this "frozen" value if he uses it as collateral.

At the first stage of implementation, the FinWhaleX platform will be ready to offer such a loan. After the loan is repaid, the platform returns the security deposit to the borrower, and the interest for using the funds will be transferred to the lender.

As the project develops and partners become involved (pawnshops / MFIs / banks), cars, equipment, real estate and other material values can be used as collateral.

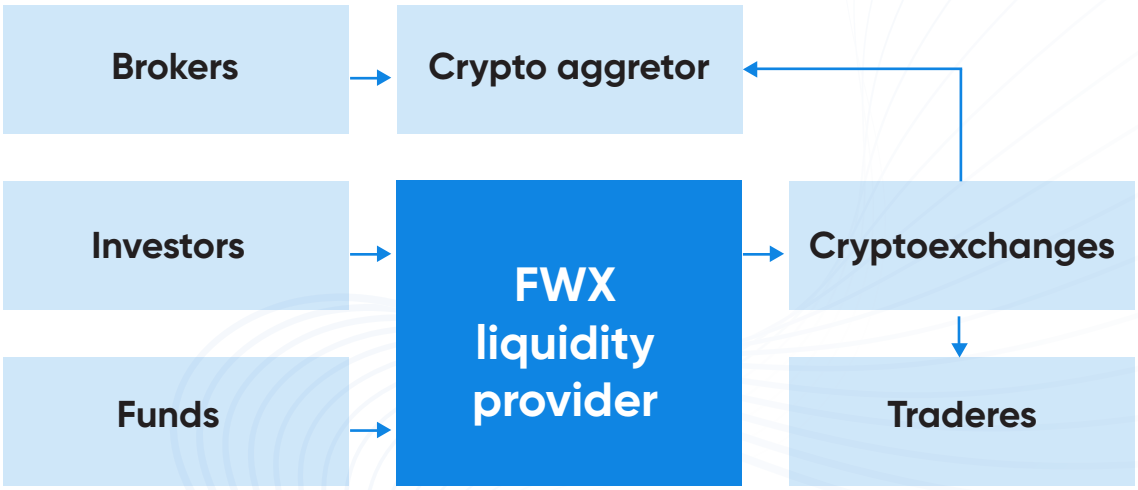
P2P loan without collateral

For individuals and legal entities based on the analysis of user data and a unique scoring score assigned by the platform. This product allows platform users to be credited on terms and conditions appropriate to their risk profile and credit history.

Liquidity Provider

One of the pressing problems faced by cryptobids is lack of liquidity. Investors and traders are not enough for everyone, their funds are distributed to a large number of digital assets and trading platforms. This in turn pushes away new investors / traders who see half-empty order books, small volumes in the deal tape, wide bid / ask spreads and suggest that an asset is unattractive. Lack of liquidity also generates high volatility of digital assets. Any less significant transaction volume shifts the price

of the instrument being traded. Often unacceptably strong. On the other hand, an interested investor can see a potential opportunity to make good money on a deal and would like to increase the size of his position at the expense of leverage. But not all exchanges are now ready to provide such an opportunity. Then the investor chooses a competitor's site with the option of margin trading or goes to another, more capacious financial market. Currently, about 250 exchanges organize trading in digital assets, but only 50 of them have relatively large trading volumes. From the increase in liquidity on trading floors, everyone will benefit. This is what is called a win-win situation. To buy Bitcoin was simple and profitable, the market must have not 50, but 250 highly liquid crypto-burg.



For exchanges and brokers

We offer exchanges and brokers to use White Label technology from FinWhaleX.
Our solution provides easy access to cryptocurrency markets and the ability to manage trading platforms without the need for large financial investments.

The solution can be quickly deployed and includes:

The ability to pool multiple liquidity streams and create private liquidity pools that are unique to your trading needs and style.
Liquidity management team to optimize and increase the monetization of flows.
Our technology provides hedging in a synchronous (A-Book) and asynchronous (B-Book) format. It can be flexibly configured for individual pairs and accounts, which

[6] https://coinmarketcap.com/rankings/exchanges/3

makes it easier for our customers to manage market risk.

Margin risk management solutions that automate customer margin requirements and provide a high degree of detail to manage customer leverage and customer risk.

Active traders

Active traders have access FinWhaleX liquidity through our primary broker model.

Our solution provides:

Two execution methods support anonymous and disclosed trading and can be combined into one graphical user interface (GUI) or application programming interface (API).

Select the connection option and messaging protocol based on your delays and security preferences: via the public Internet; via extranet; directly through a low-latency private network in key data centers.

market data FinWhaleXprovides real-time information on liquidity available on FinWhaleX, as well as the best bid and ask, size and depth of the market on the platform.

Fund manager

Thanks to the ability to trade on an anonymous or disclosed basis, our technology provides:

Deep sources of liquidity and competitive prices of market access for thousands of different participants and sources of liquidity.

The ability to pool multiple liquidity streams and create private liquidity pools that are unique to your trading needs and style, based on preferences and relationships.

Our corporate clients can also optimize investments, maintain and strengthen relationships with trading partners - all this while automating their investment process.

Marginal p2p crediting

Marginal crediting allows a trader to receive a loan against the security of his own funds and / or on the basis of his credit profile on FinWhaleX for trading in financial markets. Borrowings are used either to increase the size of a long position or to open a short position.

For example, trader T has Ethereum for USD 300 on the E stock exchange. Based on his FinWhaleX credit profile and on the security of his Ethereum on the T stock exchange, he receives a USD 300 loan from user F of our platform at a rate of X% for Y days. Now T can buy bitcoin on the stock exchange worth $ 300. In this case, T is the borrower, F is the lender.

Trader T has the right to repay the loan (with appropriate interest) ahead of schedule. Getting a loan does not require T to buy Bitcoin. In addition, T can at any time be refinanced from other lenders on more favorable terms.

If T bought Bitcoins on borrowed USD 300 and the value of funds on its balance sheet dropped, for example, by 10%, then Exchange E notifies the borrower and requests (Margin Call) to deposit additional collateral (pledge) or liquidate part of the position, i.e. . sell part of the bitcoins purchased. If the borrower does not do this and the value of funds on his balance sheet drops by another 5%, then the exchange forcibly and completely liquidates the trading position T, returns to the creditor F the loan amount and interest on it, and the balance returns T.

If the market value of the trading position T increases then he will be able to sell his bitcoins at a profit, return the loan amount (300 USD) and interest on the use of the loan to the lender. Trader T can also withdraw from the exchange profits from the transaction, but so as not to violate the original conditions of the loan.

Products based on Big Data

The demand for Big Data and methods of their analysis is growing due to the great interest of entrepreneurs. Organizations seek to understand behavioral patterns, correlations, and user preferences for more efficient business management.

According to a study by the IBM Institute for Business Value, one of the best sources of Big Data is information about user transactions.

[7] https://www.ibm.com/thought-leadership/institute...value/report/big-data-telecommunications

Our scoring analysis is based on statistical methods and allows you to significantly increase the speed of consideration of applications for loans, determine the level of client solvency and predict the likelihood of a client's delay in a given period.

Collateral Security

As a collateral security, first of all, the highly liquid digital assets - Bitcoin and Ethereum - will be used on the FinWhaleX platform.

Further, in the process of development and accumulation of statistical data, other collateral options will be added: less liquid cryptocurrencies, tokens and digital assets, classical material values.

If it is necessary to estimate rare, non-traditional, unusual assets, we will use a comparative approach, i.e. compare the object of evaluation with peers for which there is information about prices. The object-analogue is an object that is similar to the object of evaluation by the main consumer, economic, material, technical and other characteristics that determine its value.
The collateral value of the appraised object is the market value of the object, reduced by the pledge discount of the FinWhaleX platform. Discounting the market value is designed to take into account the estimated value of the object, as well as the possible costs of the platform for the process of debt collection and / or the implementation of the collateral. The model of pledge discount formation can be based on the type of collateral (fixed pledge discounts) or can be a calculated variable value.

In the second case, a set of variables is taken into account:
collateral risks;
funding costs;
loss of value due to wear, deterioration of liquidity;
costs of storage and sale of collateral.

The sources of information used to form the value are also diverse: specialized Internet resources, trading exchanges, auction sites, sales contracts, etc.

Cases

Case Investor Alice

Alice has invested free funds in BTC and ETH cryptocurrency. But her car suddenly broke down, so she urgently needed funds to repair it. Alice can sell part of the cryptocurrency, but at the moment, it is not profitable for her, because The price of cryptocurrency varies greatly (if the price rises or falls, it is not profitable in both cases).

Then Alice signed up for FinWhaleX and received a loan for repairs on the security of a small part of her cryptocurrency. After repayment of the loan, she received the entire bail entirely. Thus, she received funds for repairs and did not have to worry about possible losses due to the unforeseen necessity of selling cryptocurrency.

Case miner Robert

Robert is the owner of a small mining farm. He made a good offer for the purchase of miners, so he urgently needed funds to purchase them. In total, Robert needs $ 100,000, he can sell his bitcoins and get fiat or even buy equipment directly for bitcoins, but then he will be forced to sell bitcoins at a price that is unprofitable for him (it temporarily decreased).

Why did Robert turn to FWX? What if the BTC rate drops? Robert knows that if he takes a loan secured by a collateral in cryptoactive assets like Bitcoin or Ethereum, then in return he will receive the agreed amount of the loan in a stable currency. After payment of the loan, he will receive the entire bail in its entirety, even if that one has increased in value many times. Thus, he receives liquidity, maintains his position in the crypto market and remains in the investment race. With FWX, there is no need to sell your BTC if you need liquidity.

Loan funds secured by collateral. The recommended ratio of credit debt to the amount of collateral (RtC) is 50%. The client can set the ratio from 50% to 80%. According to the results of a retrospective analysis of Bitcoin fluctuations, this ratio is considered optimal. The margin remains acceptable up to the value RtC = 95%.

If the rate begins to fall, then at RtC = 81%, when the pledge is estimated at $ 124,000, the system asks Robert in advance:

Make an additional depositdeposit

Robert willadditional bitcoins equivalent to $ 76,000 and continue to use the loan. As soon as Robert repays the loan, all Bitcoins, including additional collateral, will be returned to him.

To repay part of the loan,
Mike will make a payment of $ 38,000, will owe the system $ 62,000 and continue to use the loan, since RtC is again 50%.
To repay part of the loan with collateral
Robert may ask the system to sell part of the collateral and repay part of the loan with the proceeds. Robert will continue to use the loan and can return the rest of his mortgage after the loan is repaid.

If the RtC ratio becomes higher than 95%, the system automatically realizes the collateral for the loan repayment, and Robert returns the mortgages remaining after the repayment. For a borrower, it will look like activating an automatic loss control
How can Robert protect himself and diversify risks?
When applying for a loan, Mike can set a loan to collateral ratio of 30% or less and reduce the likelihood of RtC dropping to critical values.
Robert can make a deposit in several cryptocurrencies simultaneously. Thus, more robust cryptoactives will offset the volatility of others.

Case Trader Tanah

Daniel Tan is an active day trader of digital assets. Using fundamental and technical analysis, he comes to the conclusion that within a few hours breakdown of the side trend is formed and one can make good money on it. And, because Tan is confident in the probability of a breakdown, he wants to increase the profitability ratio using borrowed funds (leverage). But, the Exchange where Tang trades does not have the tools or liquidity to provide leverage at the moment.
After the conclusion of a partnership agreement of the Exchange with FinWhaleX, the Exchange will have the necessary liquidity to provide margin trading for its traders. Now Daniel Tan can use the service for trading with leverage with an interest rate of 5%, leaving the existing assets on bail.
Daniel Tan makes a deal with a higher leverage and gets higher profits. He gladly repays the loan in an hour with interest and returns his invested assets. The lender is also pleased that he earned 5% in just one hour. The exchange and the investor, contributing to the issuance of the loan, are also happy to earn a commission of 2% of the loan amount.
The FinWhaleX platform will automatically match Daniel Tan's request with potential

lenders of other exchanges / providers of digital assets and satisfy his borrowing requirements with an interest rate that corresponds to Daniel's risk profile.

Over the past six months, Tan worked hard and earned good money, so he was going to rest. In order to have a good rest during the holidays, but still earn, Daniel decides to provide his funds as a loan on the FinWhaleX platform. Thus, the assets bring him passive income with minimal risk and low time costs.

Because of this, the value of Daniel Tahn's digital assets continues to grow, even when he is resting.

ABC company case

ABC company collected 50,000 ETH during the ICO at the peak of 2017, when the ETH rate was about $ 1250. ABC Company believed that ETH will grow further, and only 10% of ETH is exchanged for Fiat at the peak, while keeping 90% in ETH.

Since the bearish trend started on the cryptocurrency market in 2018, the value of ABC's ETH company continues to fall, and at this point sales seem inevitable and painful. Therefore, ABC, now faces a dilemma - to sell or not to sell.

The FinWhaleX platform automatically matches the request for a loan to ABC with several lenders at a 25% interest rate in accordance with the request, and ABC was able to retain ownership of its ETH, while receiving an order to cover expenses. After 6 months, ABC was able to conduct a round of direct investments and repay the loan to creditors with an agreed interest.

ABC decided to leave ETH for 6 months and, in order to pay the company's operating expenses, decided to use the FinWhaleX platform to borrow FWX against ETH.

Player Harry Case

Harry has digital assets in the form of inventory in Steam games (TF2, Dota2, CS: GO) and he needs funds to buy the game on the Steam site, but he does not want to part with his inventory.

Harry turns to the FinWhaleX platform, exposing his loan terms against his inventory. Lenders review his application and one of them approves it. After that, Harry receives funds leaving part of his inventory on the platform on bail.

When paying the full amount of the loan, Harry returns his inventory and the lender receives a percentage of the loan. If the loan is not repaid, the lender receives a pledge of Harry and can sell it on the Steam marketplace.

The Token of platform

FWX token is a utility token implemented according to the ERC-20 standard on the Ethereum blockchain.

Holders of tokens have access to the platform, increased scoring score for the loan, the possibility of taking a loan and lending to other users.

All transactions within the platform will be conducted only through the FWX token. For example, the issuance of a loan secured token FWX.
The FWX Token will allow its owner to use the FinWhaleX platform to take out a loan and lend to others.

Token provisioning:

After the IEO, the token will be available on the main CRITO exchanges. The main functionality of the platform will be available only for the FWX token. All transactions of the loan process will be made through the user's wallet on the FWX platform in FWX, thereby ensuring the filling of the purchase glass on third-party exchanges. Further partnerships with exchanges / digital goods platforms will also be made via the FWX token.

1. FWX is trading freely.
2. Currency risk arises for a short time - within the process of processing the transaction.
3. The pledge is valued in dollars, the loan amount is calculated in dollars.
4. Commission on the platform is formed in FWX tokens that can be stored or changed to Crypt / Fiat.
5. In the Exchange scheme - it can be one exchange for all or different exchanges ... where FWX is traded. To ensure liquidity, Market Maker / Taker is required.
6. In addition to the commission of the platform, there will still be expenses from lenders / borrowers - on converting FWX - there / back.
7. The cancellation process is reversed, the borrower purchases FWX and repays the loan, the platform receives a commission, the lender receives the rest.

Token distribution

Price:
0.00000001BTC

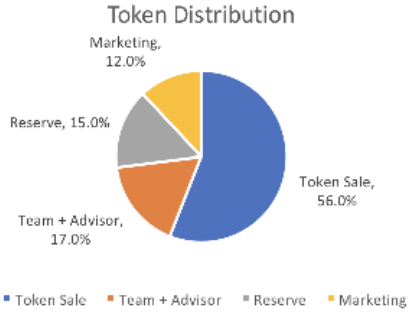
Investors:
72,800,000,000 FWX

11,700,000,000 FWX - Seed round
45,500,000,000 FWX - Private round
15,600,000,000 FWX - Public round

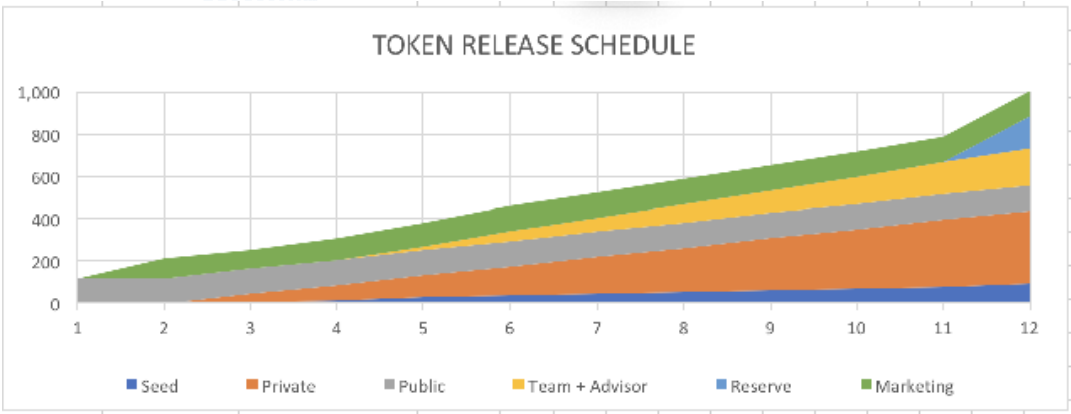
Team/advisors:
22,100,000,000 FWX

Reserve:
19,500,000,000 FWX

Marketing:
15,600,000,000 FWX



	Token release schedule, month											
Period	**Listing**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Circulation, mln	120	210	254	308	382	459	524	589	654	720	785	1,000
Unlock	12%	21%	25%	31%	38%	46%	52%	59%	65%	72%	78%	100%
Seed	0%	0%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Private	0%	0%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Public	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Team + Advisor	0%	0%	0%	0%	13%	13%	13%	13%	13%	13%	13%	13%
Reserve	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Marketing	0%	75%	0%	8%	8%	9%	0%	0%	0%	0%	0%	0%



Affiliate program

Bonus program for platform users.

Program conditions:

If the platform has at least 30,000 FWX or a loan issued to the FWX user's wallet, the user automatically becomes a member of the bonus program and will receive a monthly percentage of the total platform profit in the form of FWX tokens.

Technical aspects of the Platform

The FinWhaleX platform is a peer-to-peer p2p lending system operating on the basis of cryptographic methods on top of existing blockchain systems.

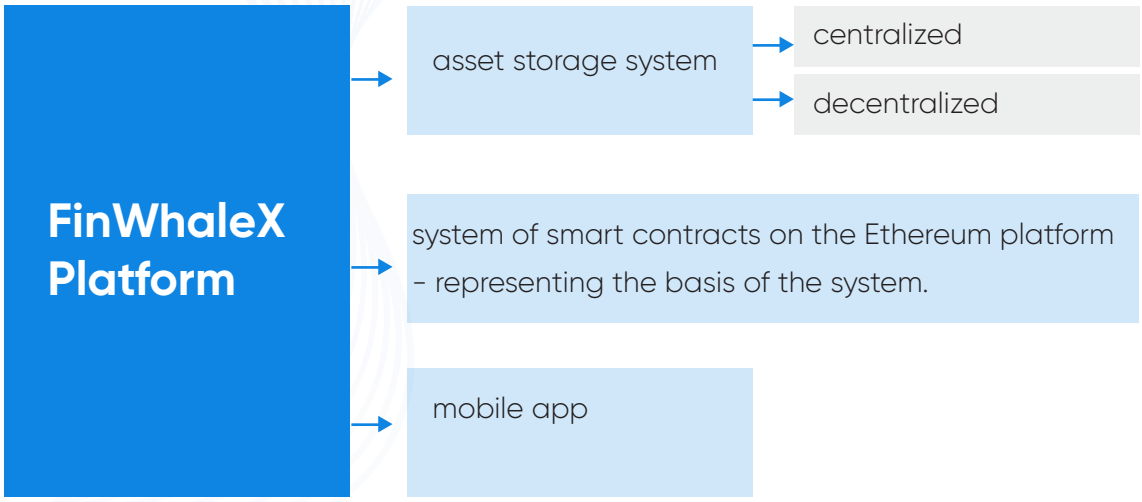
The goal of the platform is to provide safe and easy access to finance for all who need it. To ensure security, the assets with which the platform works are kept in the safest way possible based on the capabilities provided by this or that blockchain. If the blockchain supports smart contracts (for example, Ethereum, EOS, Tron, etc.) or work with multisig addresses (BIP0016, P2SH - Bitcoin, Litecoin, etc.), then storage and management of assets is carried out with their help.

The FinWhaleX platform consists of components:

an asset storage system, which in turn is divided into two parts: centralized and decentralized.

system of smart contracts on the Ethereum platform - representing the basis of the system.

mobile app.



Ethereum Blockchain is currently a proven and reliable solution for creating dApps applications based on smart contracts. The ability of Ethereum to deploy turing-complete smart contracts without an intermediary guarantor, supports the implementation of the creation of complex dApps applications, to issue digital tokens, cryptocurrencies and automated incentive structures. In this regard, Ethereum with its advanced capabilities and active ecosystem is ideally suited for FinWhaleX.

The scheme of work of the FinWhaleX platform can be represented as follows:

- lenders and borrowers are registered on the platform and undergo an identification procedure;
- the borrower places a request with information on the required parameters of the loan, such as the amount, term, purpose, interest rate; when the loan amount is limited to the estimated price of the collateral or the estimated limit of unsecured loans.
- lenders receive a notification of a new request on the platform or in a mobile application and can respond to the request (possibly by changing some parameters, for example, by offering a more favorable interest rate or term).
- the borrower chooses the lender and agrees to receive the loan, at this point the pledge freezes (if it is provided under the terms) and the funds are transferred from the lender to the borrower.

The platform supports three lists of digital assets:

1. for lending - which assets can lenders get on the platform;
2. for issuing loans - in which assets the loan can be converted from the lending currency;
3. list of digital assets that can be accepted as collateral.

The lender for issuing a loan must acquire a digital asset from the list of assets for lending to the platform. And the Borrower must get a collateral asset on the platform (for mortgage lending products).
At the time of the formation of the transaction, the borrower converts the lending currency into the FWX token in the equivalent of the loan amount and issues the loan in the FWX tokens. When receiving a token, the borrower converts it into a convenient digital asset, including fiat currency, and can also credit this loan to a plastic card.

The platform will provide simultaneous execution of both token conversion transactions,

in connection with which the lender and the borrower do not experience currency risk caused by the fluctuation of the token FWX rate.

The process of repayment of the loan occurs in reverse order. The borrower deposits the currency convenient for him and makes a return, and the Lender receives the returned amount in the currency of the original loan.

In blockchains supporting smart contracts and oracles, exchange rates are updated through the service of oracles to ensure transparency and reliability of recalculation of the value of collateral digital assets. The digital assets themselves are blocked in the smart contract system without the participation of third parties on the previously agreed terms of the transaction.

In blockchains without the support of oracles, digital assets will be blocked on multisig wallets, the discount percentage of such an asset will be proportional to the loan term, the longer the period, the higher the discount percentage, or using custodial services.

Mobile application

The development of a mobile application is based on the use of modern technologies and tools that allow you to quickly and efficiently develop mobile applications. The application supports work with cold wallets of supported digital assets, the creation of a key pair and / or account of such a wallet is made directly on the mobile device. The application also supports encrypted backup and restore wallets, secure key storage and offline transaction signing. This means that your keys remain on the device and are never sent anywhere to make a purchase.

The application allows you to receive loans by pledging digital assets and / or tracking new loan applications and issuing them.

Digital pledge assets are stored in multisig wallets, which ensures their safe storage within your "visibility" and under your control.

FWX Scoring technology

FWX Scoring technology is a universal tool for collecting and processing data of a potential borrower. It uses connections to databases of credit bureaus, government organizations, social networks, and also monitors behavioral factors.

FWX Scoring technology allows you to fully automate the collection of data on the borrower, carry out deduplication and consolidation update of its profile data during repeated calls using the widest list of data sources.

[8] https://docs.oraclize.it/

Internal technology capable of managing the risks of each loan and assigning a unique scoring score to borrowers with the ability to interact with third-party scoring companies.

Data collection in a unified system of FWX Scoring technology

In the practice of international banks, various approaches are used to determine the credit risk of individuals, ranging from subjective assessments by credit experts from commercial banks to automated risk assessment systems.

Expert assessment systems
These systems allow banks to make a weighted assessment of both the personal qualities of the potential borrower and his financial condition. In international practice, this method receives considerable attention, and a monitoring network is being actively developed to analyze the credit history of potential borrowers.

For example, in the US, a loan officer will almost always ask a local or regional credit bureau about a customer's credit history. In the US, there are over two thousand credit bureaus with data on a large amount of individuals who have ever received loans, on the repayment history of these loans and on the credit rating of borrowers.

Customer rating scoring systems
These are methods that are created by banks on the basis of factor analysis. This system uses the accumulated database of "good", "satisfactory" and "dysfunctional" borrowers, which allows you to establish the criteria level of assessment of the borrower.
Scoring systems have the advantage that they allow you to quickly and with minimal effort to analyze a large amount of loan applications, thus reducing operational costs. In addition, they are a more efficient way to evaluate applications, i.e. can be carried out by credit inspectors who do not have sufficient experience. This allows you to reduce losses from the issuance of bad loans.
The use of scoring systems for assessing the creditworthiness of clients is a more objective and economically sound method for making decisions when granting loans, than expert assessments.
For example, the creditworthiness of an individual can be quickly assessed using the Duran credit scoring system.
The Durand credit scoring model assumes the use of the following factors and the rules for taking them into account:
Gender: female (0.40 point), male (0 points);
Age: 0.1 point for every year over 20 years, but not more than 0.30;
Duration of stay in the area: 0.042 points for each year, but not more than 0.42;
Profession: 0.55 points for a low-risk profession; 0 points for a high-risk profession; 0.16 points other professions;
Financial performance: the presence of a bank account - 0.45 points; availability of real estate - 0.35 points; insurance policy - 0.19 points;
Work: 0.21 points when working in enterprises in the public sector, 0 points - others;
Employment: 0,059 points for each year of work at this enterprise.

If the accumulated amount of points does not exceed 1.25, then the borrower is considered insolvent, otherwise - creditworthy.
In scoring systems, discriminant models or a similar logistic regression method are usually used. In these models, several variables are used, giving in total the digital score of each potential borrower.
Individual scoring is a methodology for assessing the borrower's creditworthiness based on various characteristics of clients, for example: income, age, profession, marital status, etc. As a result of the analysis of factors, an integrated indicator is calculated that gives an idea of the degree of creditworthiness of the borrower, based on the scores obtained during the analysis. And as a result, depending on the scoring, a decision is made on issuing a loan and its parameters or on refusing to provide a loan.
In their practice, banks use similar valuation methods, for example, the borrower's solvency is determined as follows:
Kpl = D * K * T
where,
D is the average monthly income for the last 6 months after deduction of all mandatory payments (income tax, contributions, alimony, damage compensation, and t .d.)
K - coefficient depending on the value of D, i.e. the indicator is K = 0.3 when D is equivalent to $ 500, K = 0.4 when D is from 501 to $ 1000, K = 0.5 when D is above $ 2000.
T - loan term, months
It would not be entirely correct to consider ways of assessing the solvency of individuals, based only on this methodology, because for more than a decade of development, banks have laid a significant methodological basis on this issue. Consider a point system for assessing the creditworthiness of an individual borrower, which takes into account the most significant factors that determine the borrower's ability to fully and timely fulfill its obligations.
This system is based on a two-level rating system.
At the first stage, a bank employee offers the borrower to fill out a test form. The test questionnaire is used for a preliminary assessment of the possibility of granting a loan to a borrower. When filling out a test form from the client does not require passport data, only general information about the borrower, place of work, property, income and expenses.
Based on the results of the borrower completing the test questionnaire, the number of points collected by the borrower is calculated and the protocol for evaluating the possibility of obtaining a loan is signed. If the accumulated amount of points was less than 30, then the protocol indicates that the borrower does not have sufficient capacity to obtain a loan. The protocol together with the completed test questionnaire is transmitted to the borrower.
The next step for the implementation of a comprehensive analysis of the creditworthiness of an individual is to assess the quality of loansprovided to individuals.
The maximum amount of credit provided (S) to an individual borrower is calculated in two stages.
1. The maximum loan size is determined based on the client's solvency:
S = (1 + N% * 100) / T
where, N% is the annual interest rate; T - loan term, months
2. The obtained value is adjusted taking into account the collateral provided for the repayment of the loan, the information provided in the conclusions of other divisions of the bank, the balance of debt on previously received loans.
Loans to individuals are evaluated according to the following criteria: the

nature of the client;
client's financial capabilities;
sufficiency of unencumbered property of the client;
loan security;
lending terms.
Each criterion includes indicators that form an assessment by criterion. Each indicator is evaluated in points, the score by the criterion is equal to the sum of the estimates of the indicators included in it. The quality assessment of a loan is equal to the sum of the ratings of all criteria.
Comparing the expert and scoring rating systems, I would like to make the following clarification.

Attracting banks to assess the creditworthiness of qualified experts has several drawbacks:

their opinion is somehow subjective;
people cannot process large volumes of information quickly;
payment of highly qualified specialists is associated with significant costs.
In this regard, banks are increasingly showing increased interest in risk assessment systems that would minimize the participation of experts and the influence of the human factor on decision-making.
In turn, the scoring assessment system is a mathematical model with which the bank, based on customer credit history data, can determine what the likelihood of a loan default is a potential borrower.
The last two judgments form the following problem: most commercial banks either do not take into account the cause of a bad credit history of a borrower (which may have happened due to reasons beyond his control), or relying on a bad credit history of a client, decide not in favor of a potential borrower. This problem is often invisible to bank employees, but it has a tangible effect on customers.
Different methods for assessing creditworthiness differ from each other by the composition of factors used in assessing the borrower's overall credit rating, as well as approaches to assessing each parameter of the model and the degree of significance of each of them. Unfortunately, the composition of the factors in the model is not universal for all banks and countries, which, in turn, does not allow the global banking community to exchange statistics and improve their scoring systems.
At the same time, the complexity and ambiguity of assessing the creditworthiness of individuals necessitates the use of various methods and approaches. Moreover, it is important to note that in order to achieve the best results, the most preferable, in our opinion, is the use of both mathematical models and expert approaches in the complex.
Currently, when approving methods for assessing the creditworthiness of private

borrowers, it is important to check whether the selected methods are adapted to the current situation in the country, for example, how thoroughly the sources of financial difficulties of potential borrowers in the past are analyzed. It is important to approach issues related to negative credit history, relatively short work experience at the last place of work, etc., because the reason may lie not at all in the bad faith of the borrower, but in unfavorable circumstances that, regardless of the borrower's will, led to negative in terms of obtaining a new loan consequences.

The process carried out by the FinWhaleX platform begins from the moment the anonymized loan application data is sent to the FWX Scoring technology system.

Further decision-making is as follows:

- The application verification procedure, which includes checking the validity of the documents and the legal status of the applicant;
- Scoring based on socio-demographic features;
- Analysis of credit history data, checking your own black and white lists;
- Verification of the borrower's profile based on predetermined stop factors laid down by the client's credit strategy;
- Issuance of recommendations on the terms of the transaction: amount, interest rate, period;
- Providing the final credit rating of the application

Recently, in connection with the development of Fintech, many alternative data sources used for credit scoring have appeared. Like our competitors, we are trying to enrich our scoring models with data and make the most of new external sources.

Most popular data sources and companies using them.

Тип источника данных	Что используют?	Кто использует?
Электронные кошельки	PayPal, Magento, Skrill, Shopify, Sage Pay	Iwoca, Funding Circle, Bintbond
Интернет-магазины и сервисы доставки товаров	eBay, Amazon, Facebook business, AliExpress, Flipkart	Kabbage, Ant Finance, Lendingkart, Bintbond
Геосервисы	Foursquare, Yelp	Kabbage, Funding Circle
Сервисы доставки	UPS, Amazon, eBay, SmartShift	Kabbage
Статистические веб-сервисы	AppStore, GooglePlay, Flurry, Localytics, MixPanel, AppsFigures, Google Analytics	Aprenita
Сотовые операторы	Звонки, SMS	Branch
Госорганы	Налоги (HMRC)	Iwoca
Онлайн-бухгалтерия	Intuit, Sage, Debitoor, FreeAgent, Xero	Funding Circle
Социальные сети	Facebook, Twitter, LinkedIn	Bintbond, Kabbage

The FWX platform is focused on a scoring assignment and risk assessment mechanism that takes into account both the creditworthiness of the collateral pledged and the borrower's credit history.
Borrowers can pledge any digital assets (crypto / digital things) as collateral and receive loans in their desired asset. Thanks to the smart contract and FWX Scoring Technology and the liquidation of the collateral, the FWX Platform will conclude agreed terms between borrowers, lenders, custodians, guarantors and liquidators. The platform integrates the ecosystem between all parties to the loan transaction process.

FWX scoring technology can quickly and reliably manage the process of verifying the identity of new borrowers (KYC), assessing their creditworthiness.
Our mutual credit information network will manage data on lenders and borrowers from around the world.
Stakeholders (i.e., suppliers, regulators, and financial institutions) will be able to use our anonymous data to perform actions such as data analysis, credit scoring, customer monitoring, and more. At the same time, we will have access to our partners' information systems, which allows us to continuously improve our verification process.

Legal structure of the project

legal entity FinWhaleX PTE LTD is registered in Singapore, a state that has a serious reputation and is widely known for its pragmatic government policy, flexible taxation system and significant success of the technocratic approach implemented in the economy.
FinWhaleX PTE LTD - legal entity, holder of trademarks, financial licenses.
Both international and local regulations require FinWhaleX to implement effective internal procedures and mechanisms to prevent money laundering, the financing of terrorism, drug trafficking and human trafficking, the proliferation of weapons of mass destruction, corruption and bribery, and the adoption of measures in the event of any form of suspicious activity. Users

Verification Procedure

One of the international standards for the prevention of illegal activities is customer scrutiny ("CDD"). According to the CDD, the FWX establishes its own verification procedures within the framework of anti-money laundering standards and within the framework of KYC. The FWX identity verification procedure requires the User to provide the FWX with valid, documents issued by an independent authority, data or information (for example, national identifier, international passport, account statement, utility bill). For such purposes, FWX reserves the right to collect user identification data as part of the AML policy. FWX will take steps to confirm the authenticity of documents and information provided by Users. All legal methods will be used to double-check identification information, and FWX reserves the right to examine in detail certain Users who have been identified as dangerous or suspicious. FWX reserves the right to check the user's identification documents on an ongoing basis, especially if his activity seemed suspicious (unusual for a specific User). In addition, FWX reserves the right to request updated documents from Users, even if they are authenticated in the past. User identification information will be collected, stored, shared and protected strictly in accordance with the GENERAL TERMS OF KYC / AML POLICY FINWHALEX PTE Privacy Policy. LTD. After confirming the identity of the User, FWX will be able to avoid potential legal liability in a situation when the Company's services are used to carry out illegal activities.
EMPLOYEE OF THE SUPERVISION SERVICE
An employee of the supervision service is a person duly authorized by the FWX, whose duty is to ensure the effective implementation and enforcement of AML / KYC

policies. It is the responsibility of the oversight officer to monitor all aspects of the fight against money laundering and the financing of terrorism in the FWX, including but not limited to:

- Collection of user identification information.
- Create and update internal policies and procedures for completing, reviewing, submitting and storing all data and reports required in accordance with applicable laws and regulations.
- Transaction monitoring and investigation of any significant deviations from normal activities.
- Introduction of a records management system for the appropriate storage and retrieval of documents, files, forms and journals.
- Regularly updated risk assessment.
- Providing law enforcement with the information required in accordance with applicable laws and regulations. A supervisor has the right to interact with law enforcement agencies that are engaged in activities to prevent money laundering, the financing of terrorism and other illegal activities.

Policy AML

FWX has a zero tolerance policy for money laundering. We define money laundering as any activity that is conducted in an attempt to distort the source of funds actually acquired as a result of illegal processes, as funds that were acquired through legitimate sources / activities. All FWX partners are required to comply with this anti-money laundering policy and internal AML guidelines and all applicable anti-money laundering laws. Failure to comply may result in serious consequences, such as criminal prosecution and heavy fines. GENERAL TERMS OF KYC / AML POLICY FINWHALEX PTE. LTD. FWX ensures full compliance with anti-money laundering laws through appropriate policies. FWX implements a series of filtering operations to quickly and accurately identify any financial transactions that may be or are related to money laundering. This helps ensure financial transactions exclude money laundering throughout the entire FWX platform. All agree to the following conditions regarding the use of the platform, the opening and maintenance of accounts in the FWX and for all financial transactions as an FWX client:

1) The user will comply (as long as he is a FWX client) with all relevant provisions regarding money laundering and proceeds from criminal activity.

2) FWX works according to certain know-your-client commitments that give FWX the right to apply money laundering procedures to help identify and prevent money laundering activities in which money laundering can mean handling any means associated with any illegal activity, regardless of its location.

3) The user agrees to provide full assistance to the FWX regarding anti-money laundering efforts. This includes providing information that FWX requests for customer business data, account usage, financial transactions, etc., to help the FWX fulfill its obligations as dictated by applicable laws, regardless of jurisdiction.

4) FWX reserves the right to postpone or terminate any transfer of funds, if there is reason to believe that the completion of such a transaction may violate any applicable law or is contrary to acceptable practice.

5) FWX reserves the right to suspend or terminate any account or freeze funds in the account if there is reason to believe that the account is used for activities that are considered illegal or fraudulent.

6) FWX has the right to use customer information to investigate and / or prevent fraudulent or other illegal activities.

7) FWX has the right to provide information about the client:

a) to the investigating authorities or any authorized official who helps the FWX to comply with applicable laws, including laws on GENERAL TERMS OF KYC / AML POLICY FINWHALEX PTE. LTD.

b) Organizations that help FWX deliver the services it offers to its customers;

(c) Government, law enforcement and courts;

d) Regulators and financial institutions.

The activities that FWX considers possible indicators of money laundering include:

1) The user (for all the time since he became a client of FWX) has expressed unusual concerns or reservations regarding the anti-money laundering policy at FWX.

2) The client is interested in financial transactions that are contrary to the common sense of the business or incompatible with the business policy of the client.

3) The client can not provide information about the legality of the sources of their funds.

4) The client provides false information about the source of their funds.

5) The client, appearing in stories or being the subject of news, indicating civil or criminal offenses.

6) A client who can act as a "frontman" for an undisclosed person or business does not respond satisfactorily to requests for the identification of that person or business.

7) The client cannot easily describe the nature of his type of activity.

8) The client often makes large deposits of funds, and also forms applications using cash only.

9) The client maintains several accounts and conducts an unusually large number of transactions between their accounts or on the accounts of third parties.

10) On the client's account, usually previously not active, there is a surge in the activity

of transfers. The above list is by no means exhaustive. FWX monitors the activities of its clients and their accounts in the light of a number of other problems and takes appropriate measures to prevent money laundering.

Roadmap

ROADMAP

09.2018 The emergence of an idea about p2p lending based on blockchain technology, smart contracts

11.2018 Market and competitive environment

01.2019 Development, platform architecture FinWhaleX concept

03.2019 Platform prototype implementation

04.2019 Private round of financing, demonstration of the platform concept and prototype.
Hiring a development team to implement the product.

05.2019 Presentation of the platform at the conference Russian Tech Week-2019.
Start of development of the platform:
- smart contracts / crypto-wallets
- web interface / backend.
- Mobile application

06.2019 Launch of the beta version of the platform.

07.2019 Launch of the platform with the functionality of issuing loans secured by BTC and ETH, verification of user documents, referral system.

08.2019 Launch of Liquidity Provider functionality to provide liquidity for cryptocurrency exchange traders. IEO FinWhaleX.

09.2019 The first release of the mobile application for the Android / iOS platform.

11.2019	Obtaining financial licenses for working with fiat currencies. Launch FWX Scoring technology.
12.2019	Adding to the platform of a new type of collateral - tokens Ethereum ERC-20
01.2020	Adding a new type of collateral platform - tokens EOS
02.2020	Adding a new type of collateral platform - tokens Tron TRC-20
03.2020	Listing token FWX on 5 cryptoexchanges
04.2020	Adding to the platform A new type of collateral - digital assets Steam Market (TF2, Dota 2, CS: GO)
05.2020	Getting the platform started to work with pawnshops.
06.2020	Start of operation of the platform with fiat currency. The release of a mobile application with support for working with pawnshops.
08.2020	Launch the issuance of loans without collateral. Mobile application release with support for fiat currency.
10.2020	Release of a mobile application with support for issuing loans without collateral.
12.2020	Launch of products based on Big Data.

Team

TEAM

Vladimir Egorov

CEO/Co-owner

Artur Vartanyan

COO/Co-owner

Aldar Sandanov

CTO/Co-owner

Paddy Tan

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Alexandr Bragin

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Alexey Afonin

UI/UX designer

FinWhale