



FlyPenny White Paper  
PROOF OF MOVE PLATFORM  
by Vasily Gromov

# FlyPenny

Put Thanks! into your pocket!

The FlyPenny project is based on the idea of fast micro-transactions of the amount of 1 US cent, and the name is formed from two words: "Fly" and "Penny", i.e. "flying cent", which, with the use of mobile technology, has become a real unit of account for smartphone users.

The Proof-of-move algorithm developed by the FlyPenny Team confirms (proves) the desired movements of users who share their GPS position with the FlyPenny app at a transactional level. At the same time, partners of the FlyPenny service, as a token of gratitude for visiting them, fill the balance of their visitors. No special actions are required on the part of visitors-smartphone users, the FlyPenny balance is filled automatically upon the physical presence of the person in public places, which are also places of promotion and where FlyPenny Coin is distributed over the air.

Places of encouragement where people can get FlyPenny Coin are socially significant places, such as: airports, shopping malls, gas stations, cafes, restaurants, fitness centers, theaters, museums, government agencies, as well as speed cameras on highways. around the world.

How it works: Smartphone users give the FlyPenny app access to their GPS location and receive 1 FLPN rewards for their movements when they visit

rewarded locations, as well as receive 1 FLPN rewards when they drive a car at an allowed speed under every speed camera on the highway in any country in the world.

The FlyPenny balance accumulated in this way can be used as a payment for a discount from FlyPenny service partners or transferred to your wallet in the Ethereum blockchain network, as well as transferred to fiat (to a bank card) by paying a commission to the service.

In our opinion, the US government debt is an instrument that belongs to all people, and therefore, based on the principle of justice, the US government debt should serve the benefit of society around the world and the FlyPenny project uses the amount of US government debt as the maximum issue amount of FlyPenny Coin tokens (FLPN) and measures of financial gratitude to people living in any country in the world, including the United States.

At the time of the launch of the FlyPenny project in 2018, the US national debt was about 21 trillion. dollars. For the functioning of the FlyPenny project in the Ethereum blockchain in 2021, stable coins were issued in the form of FlyPenny Coin tokens (FLPN) in the amount equivalent to 21 trillion. US dollars, based on the nominal value of 1 FLPN equal to 1 US cent. Public link to the FlyPenny Coin (FLPN) token:

<https://etherscan.io/token/0x454828d7873d0a6f658f052ceba722be82f02f5c>

The issue volumes of FlyPenny Coin (FLPN) tokens are limited by the size of the US government debt and can be adjusted; with an increase in debt, additional tokens will be issued, and with a decrease in the amount of US government debt, the emitted tokens will be burned.

The exchange rate of FlyPenny Coin (FLPN) may differ from the nominal price of 1 US cent in any direction and reflects the current balance of supply and demand. Developers are aiming to maintain the exchange rate of 1 FLPN in the range of 0.7 to 1.3 US cents.

The value of the FlyPenny project for retail chains lies in the possibility of attracting FlyPenny users in order to increase the average check.

Since corporate accounts of retailers are involved in distributing coins to visitors, retailers are the main source of demand for FlyPenny Coin (FLPN) tokens on cryptocurrency exchanges, as retailers are interested in keeping their corporate FlyPenny accounts always full. With an empty corporate account, the retailer will not be able to distribute FlyPenny coins to its visitors and thus will not be able to retain and attract FlyPenny users to its full extent.

The value of the FlyPenny project for end users lies in the fact that the daily routine movements of users are confirmed by a secure transaction for 1 US cent, or a monetary unit in the national currency of the country of presence, increasing the balance of users for movements through the promotion sites. For example, in Russia, 1 FlyPenny transaction corresponds to 1 ruble (~1.3 US cents at the beginning of 2021), and in China, 1 FlyPenny transaction is equal to 1 jiao or 1/10 yuan (~1.5 US cents at the beginning of 2021).

Only with the FlyPenny mobile app do people generate rewards for themselves by making their usual but desirable road trips, visiting various buildings and institutions that are on the rewards map integrated into the FlyPenny mobile app.

Proof of desired travel in the form of monetary rewards creates a positive and strong attachment for users around the world to FlyPenny's mobile travel monetization service.

The value of the FlyPenny project for investors lies in the possibility of a significant increase in investment as the number of users of the project grows around the world.

## Introduction

Just imagine, every time you go somewhere, you are thanked and rewarded for your visit and your balance is replenished by 1 US cent. Every time you pass a speed camera while keeping the speed limit, you are thanked for it and your balance is topped up by 1 US cent in any country in the world.

Only now, with the FlyPenny app, you can become a millionaire just by doing your normal movements. Your balance is replenished automatically simply because you have the FlyPenny app installed on your smartphone. This magic is made possible by mobile technology and the decentralized Ethereum blockchain network.

The US government debt is an instrument that belongs to all people, and therefore, based on the principle of justice, the US government debt should serve the benefit of society around the world and the FlyPenny project uses the amount of the US government debt as the limit for issuing FlyPenny Coin (FLPN) tokens and measures of financial gratitude to people living in any country in the world, including the United States.

The amount of US government debt is converted on the Ethereum blockchain network in the form of stable coins in the form of FlyPenny Coin (FLPN) tokens and is available for use for the benefit of the population in all countries of the world, including the United States. Now everyone can get their share of the US government debt in the form of FlyPenny Coin (FLPN) tokens.

Thus, the amount of FlyPenny Coin (FLPN) issued is directly dependent on the amount of US government debt and the face value of 1 (one) FlyPenny Coin (FLPN) is equal to 1 (one) US cent.

The exchange rate of FlyPenny Coin (FLPN) is determined by both traders and corporate partners of the FlyPenny service, who purchase FlyPenny Coin (FLPN) for the purpose of replenishing their corporate accounts, on behalf of which visitors are rewarded for visiting places where trading and services are provided.

That's why it is important that each smartphone has the FlyPenny app installed and that each smartphone owner knows and understands their capabilities. Therefore, educational and marketing components are among the most important elements on the way to promote the FlyPenny mobile service.

Promotion of the service, to which developers direct significant funds, will be the key to maintaining and returning investments, as well as increasing the profits of retailers.

In addition, FlyPenny takes on an important social role to financially motivate drivers to comply with the speed limits on the roads, in order to improve overall road safety.

Also, the FlyPenny mobile service has functionality for the operation of charitable and volunteer projects that can collect FlyPenny Coin for their own purposes, and FlyPenny service business partners can cooperate with such charitable projects on their own terms.

The developer's income is generated by issuing and selling tokens. To keep the price of the token in the desired range, the developers control the volume of its supply using smart contracts.

## Definitions

**A token** is a unit of account on a cryptocurrency platform designed to represent a digital balance in some asset, acting as a “substitute for securities” in the digital world. Tokens are an entry in a ledger distributed on a blockchain. Token management is implemented using smart contracts, which record the values of balances on the accounts of token holders, and which provide the ability to transfer tokens from one account (wallet) to another.

**A stablecoin** is a cryptocurrency or token whose denomination has a fixed value relative to fiat.

**FlyPenny Coin (FLPN)** is a token issued according to the ERC-20 standard on the Ethereum blockchain network, which is a stablecoin. The emission limit is determined by the size of the US government debt.

**FlyPenny balance** is the value of transactions, which are measured in integer "penny" or "p." in the FlyPenny mobile app.

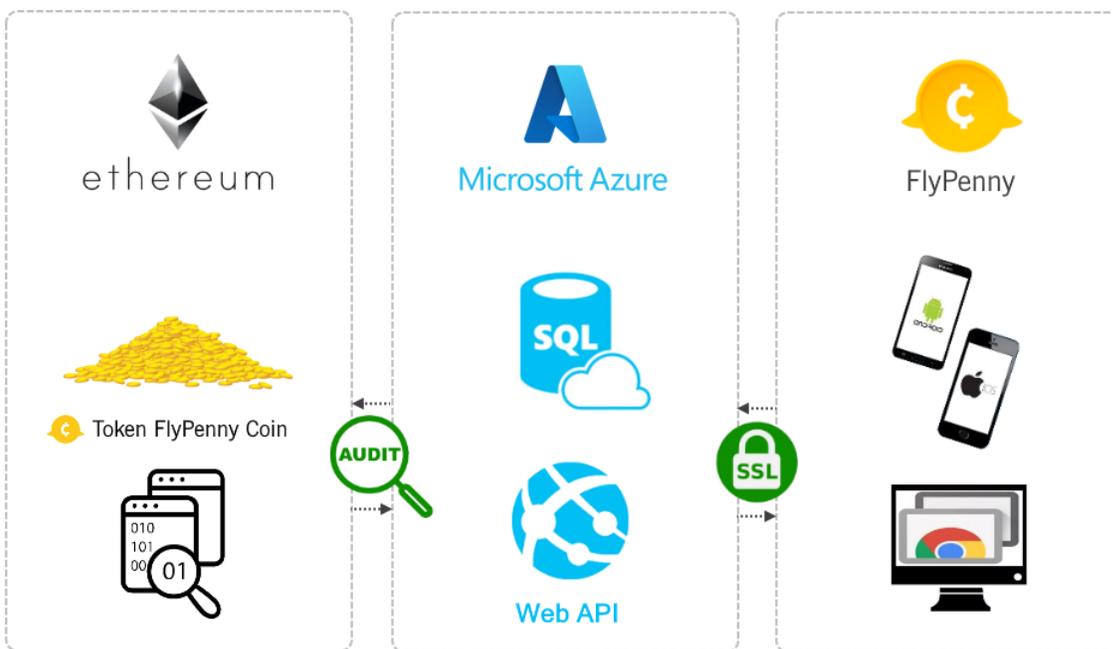
**FlyPenny wallet balance** is measured in FlyPenny Coin tokens (FLPN) on the Ethereum network.

The terms “**FlyPenny Balance**” in the FlyPenny mobile application and “**FlyPenny Wallet Balance**” in the Ethereum network are identical and refer to the amount of FlyPenny Coin (FLPN) held by the user.

## Technical architecture and implementation

The FlyPenny mobile application was developed using the Microsoft Visual Studio toolkit with the Xamarin extension, and it is a multi-platform and is available for download in the AppStore and PlayMarket.

To work with data arrays, an industrial Microsoft SQL Azure DBMS is used, the elasticity of which allows serving big data and a significant amount of operations around the world. The technical architecture of the project is shown schematically below.



User registration in the FlyPenny application takes place using a mobile phone number with the possibility of confirming the number by SMS or by calling the number.

All connections with client devices in the form of smartphones running Android and iOS, as well as work in the application for browsers, occur via a secure https protocol.

FlyPenny Coin (FLPN) will be implemented on the public Ethereum blockchain as an ERC20 token. ERC20 is the Ethereum token standard

<https://github.com/ethereum/EIPs/issues/20>

## **“Proof-of-move” algorithm**

An algorithm called "Proof-of-move", developed by FlyPenny Team, is designed to provide proof of user movement through access to their GPS location and matching locations with reward places by making secure transactions in the elastic Microsoft SQL Azure DBMS. The user balance generated in this way is then used directly or converted into a transaction on the Ethereum blockchain network at a 1:1 rate into FlyPenny Coin (FLPN) token, minus the developer fee and the Ethereum network.

Thus, the balance of FlyPenny users, formed due to their movements, is supported by a ledger entry distributed in the Ethereum blockchain.

Since for ERC-20 tokens, which include the FlyPenny Coin (FLPN) token, the commission for transactions in the Ethereum blockchain network is about \$20 (price at the beginning of 2021), it is not economically feasible for each micro-transaction in the amount of 1 (one) FLPN (1 US cent) to reflect with one blockchain on a smart contract in the Ethereum network worth 20 US dollars.

Therefore, in the Ethereum blockchain network, the accumulated (cumulative) balance of FlyPenny is reflected by performing a 1:1 withdrawal operation from the FlyPenny application to your wallet (account) in FlyPenny Coin (FLPN) tokens.

In this regard, the terms "FlyPenny balance", which is measured in "penny (p.)" in the FlyPenny mobile application, and "FlyPenny wallet balance" in the Ethereum network, which is measured in FlyPenny Coin tokens (FLPN) are identical at the rate of 1 :1 and may be used interchangeably in the context of this document to refer to a FlyPenny user's current balance in FlyPenny Coin (FLPN) tokens.

From a road safety point of view, drivers complying with the set speed is a socially beneficial act that is approved by society and therefore is monetized in the FlyPenny service.

It is well known that people's visits to public and public places, such as theaters, shops, gas stations, etc. is a manifestation of socially-oriented activity and therefore is also monetized in the FlyPenny service.

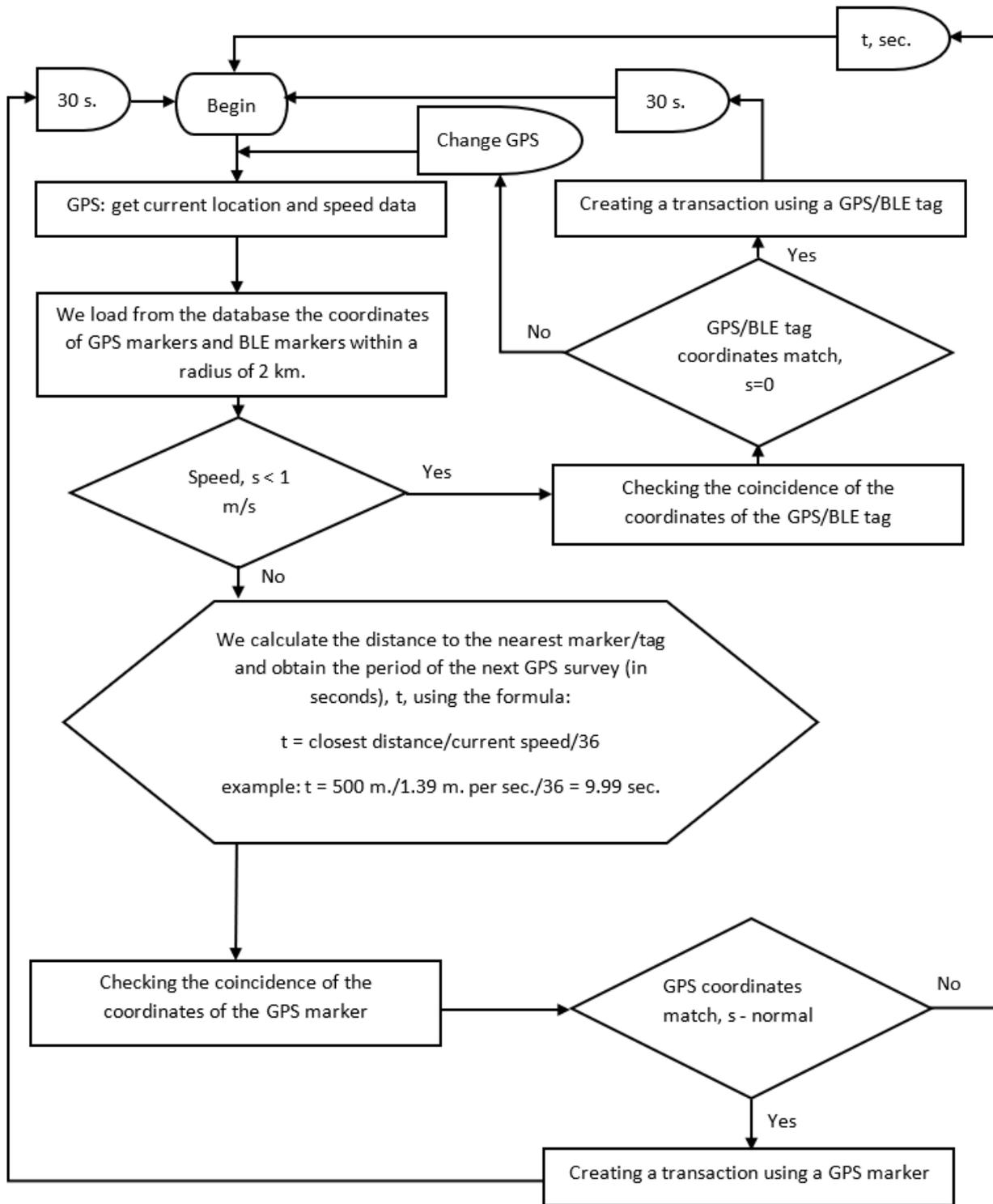
When installing FlyPenny on a smartphone, the user allows the application access to his geolocation. Thus, the FlyPenny service, having data on the current location

of the user and comparing them with the places of rewards (where FlyPenny Coins are distributed for a visit), if the GPS data matches, makes a transaction between the user and the holder (owner) of the reward zone (shop or other point of sale or service).

When a user passes under a speed camera, the FlyPenny service, having GPS data on the current location and speed of the user, compares them with the data on the GPS position of the speed camera, the set speed limit, and checks whether the user has a valid driver's license. If all the specified conditions match, a secure transaction is automatically generated in the FlyPenny service for 1 penny (p.), equivalent to 1 FlyPenny Coin (FLPN) in the Ethereum network, in favor of the driver.

Thus, the Proof-of-move algorithm allows at the level of payment transactions of the FlyPenny service, and at the level of subsequent reflection of the FlyPenny balance in the Ethereum network, to confirm (prove) how many times the user has made the desired movements.

Below is a flowchart that is used in the Proof-of-move algorithm in terms of generating payment transactions depending on the current speed of the FlyPenny subscriber.



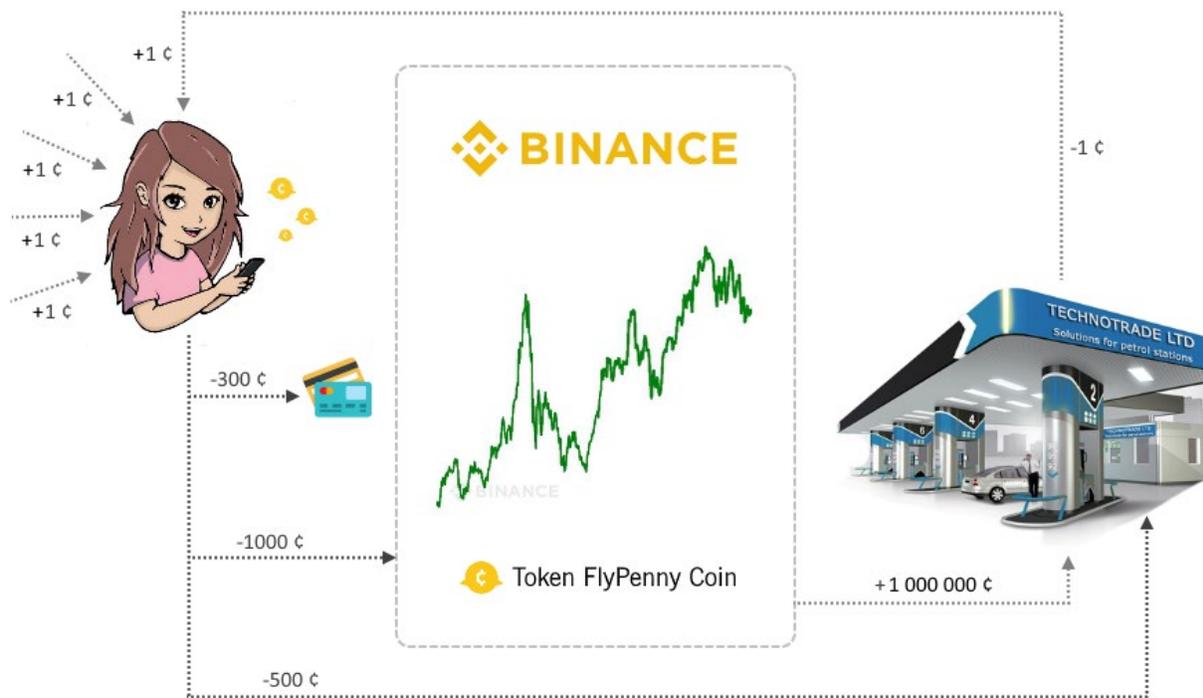
## Platform operation

FlyPenny Coin (FLPN) tokens allow you to replenish FlyPenny corporate accounts by purchasing them on the exchange at the current rate.

Tokens provide the ability to withdraw the FlyPenny balance accumulated by users to the Ethereum network and their subsequent sale on the exchange.

Below is a diagram of the market turnover of FlyPenny Coin (FLPN) tokens using a mobile application, using the example of the Binance exchange and a gas station. So, a corporate network buys tokens to distribute welcome coins to its visitors. Visitors who have accumulated coins in this way withdraw them to the card, or to the exchange, or spend them as a discount from corporate partners of the service when making purchases. The limits for using the FlyPenny balance when making a purchase are set by the corporate partners of the service on their own.

Thus, users have the opportunity to save their balance and spend it when making purchases, for example, by paying 6% of the cost of fuel at gas stations with their FlyPenny balance.



## Token information

FlyPenny Coin (FLPN) will be implemented on the public Ethereum blockchain as an ERC20 token.

Link on FlyPenny Coin (FLPN) page in Ethereum:

<https://etherscan.io/token/0x454828d7873d0a6f658f052ceba722be82f02f5c>

Link on initial code of smart-contract of FlyPenny Coin (FLPN) token:

<https://etherscan.io/address/0x454828d7873d0a6f658f052ceba722be82f02f5c#code>

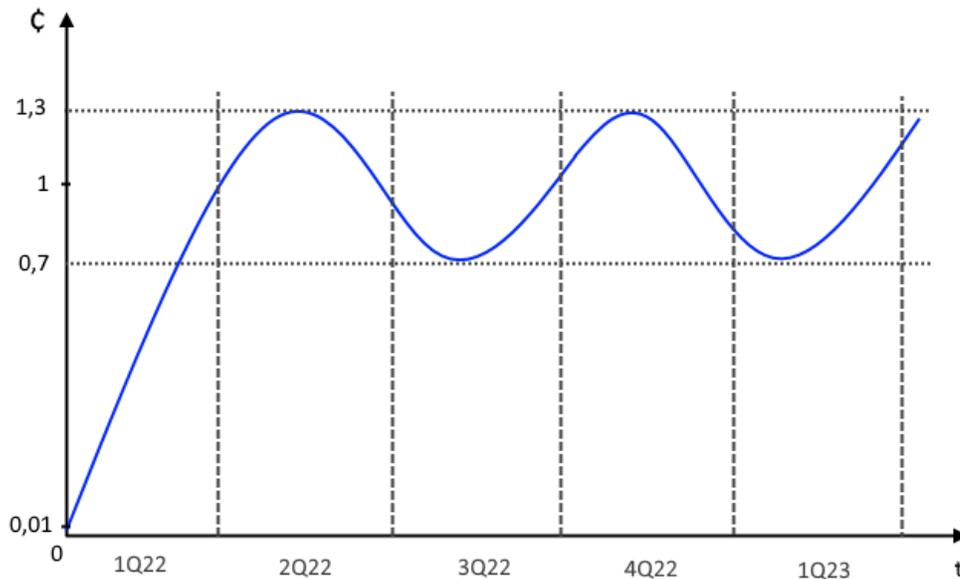
FlyPenny Coin (FLPN) denomination: 21,000,000,000,000 00 (in cents), where 1 FLPN = 1 US cent, which is the equivalent of US government debt as of 2018 in the amount of 21 trillion doll.

The balance of FlyPenny users is backed by a ledger entry distributed on the Ethereum blockchain.

As for ERC-20 tokens, which include the FlyPenny Coin (FLPN) token, the commission for transactions in the Ethereum blockchain network is about \$20 (price at the beginning of 2021), it is not economically feasible for each micro-transaction in the amount of 1 (one) cent USA validate on the Ethereum blockchain.

Therefore, in the Ethereum blockchain network, the accumulated FlyPenny balance is reflected by performing a 1:1 withdrawal operation from the FlyPenny application to your wallet (account) in FlyPenny Coin (FLPN) tokens.

Below is a chart of the establishment and maintenance of the nominal price of FlyPenny Coin (FLPN) on exchanges in the period starting from the first quarter of 2022.



Based on the exchange rate of national currencies in relation to one FlyPenny Coin in the application, it is expected that the exchange rate will be in the range from 0.7 to 1.3 US cents.

So, in Russia, 1 FlyPenny transaction corresponds to 1 ruble (~1.3 US cents at the beginning of 2021), and in China, 1 FlyPenny transaction is equal to 1 jiao or 1/10 yuan (~1.5 US cents at the beginning of 2021), which, in the presence and activity of partners of the service, will allow the exchange rate of FlyPenny Coin to be in the specified ranges.

At the project launch stage, the implementation of FlyPenny Coin (FLPN) takes place on preferential terms through a closed subscription. Investors have the opportunity to purchase FlyPenny Coin (FLPN) in pools from 1 million FlyPenny Coin (FLPN) below par value from the developer.

The current situation with the implementation of FlyPenny Coin (FLPN) tokens is transparent and public and is always available for viewing on the main page of the token in the decentralized Ethereum network, while information about wallet owners is anonymous according to the rules of the network and is not published anywhere.

## Road map

For several years of the project's existence, it has been constantly improving, debugged and increased its capacity for launching into commercial operation. The stability with which the developers are engaged in this project testifies to professionalism. Check the roadmap, which is already 80% implemented, and draw your own conclusions about the fundamental approach to developing this solution.

Date	Name of work on the FlyPenny project	Budget, \$	Readiness
1Q 2016	Formalization of the project idea, choice of name, registration of a domain name, preparation of technical specifications	1000	Done
2Q 2016	Development of project architecture, creation of a web version of the project, registration of copyrights	4000	Done
3Q 2016	Development of a mobile application on the Windows Mobile platform	10000	Done
4Q 2016	Testing hypotheses, creating focus groups, customer development, adjusting the terms of reference	5000	Done
1Q 2017	Development of a mobile application on the Android platform	10000	Done
2Q 2017	Development of a mobile application on the Android platform	10000	Done
3Q 2017	Development of a mobile application on the Android platform, implementation of support for BLE tags	10000	Done
4Q 2017	Development of an IoT solution on Raspberry Pi3 with support for Speech Recognition API	10000	Done
1Q 2018	Testing hypotheses, creating focus groups, customer development, adjusting the terms of reference	5000	Done
2Q 2018	Development of a mobile application on the iOS platform	10000	Done
3Q 2018	Road tour of Ireland, development of an investment portfolio	10000	Done
4Q 2018	Implementation of more than 100 thousand speed cameras around the world on the service map	10000	Done
1Q 2019	Connection of pilot projects of the retail sector in	10000	Done

Date	Name of work on the FlyPenny project	Budget, \$	Readiness
	Russia		
2Q 2019	Connection of pilot projects of the gas station network sector in Russia	10000	Done
3Q 2019	Passage of the Skolkovo acceleration program	5000	Done
4Q 2019	Road tour to Japan, development of an investment portfolio	15000	Done
1Q 2020	Connection of pilot projects of the retail sector in Russia	10000	Done
2Q 2020	Connection of pilot projects of the gas station network sector in Russia	10000	Done
3Q 2020	Connection of pilot projects of the retail sector in Russia	10000	Done
4Q 2020	Connection of pilot projects of the gas station network sector in Russia	10000	Done
1Q 2021	Hypothesis testing, customer development, specification adjustment	5000	Done
2Q 2021	Issuance of ERC-20 standard tokens in the Ethereum blockchain network	10000	Done
3Q 2021	Refinement of a mobile application on the Android and iOS platforms, recurrent transactions	10000	Done
4Q 2021	Development of a mechanism for withdrawing FlyPenny balance to fiat and FlyPenny Coin (FLPN)	10000	Done
1Q 2022	Pre-ICO private placement of FlyPenny Coin (FLPN) tokens, UniSwap ICO	15000	In progress
2Q 2022	Listing on exchanges of FlyPenny Coin (FLPN) tokens, including the Binance exchange and others from the TOP-10 list	100000	Planned
3Q 2022	Marketing campaign to popularize the service to attract 5 million users	100000	Planned
4Q 2022	Connecting partners in the field of retail and gas stations. Maintaining a stable rate of FlyPenny Coin (FLPN) tokens on exchanges, implementing the service in different countries of the world, creating representative offices, working with regional partners, popularizing the service	100000	Planned
	Cumulative investment amount:	525000	
Achieving the full payback of the project			
1Q 2023	Connecting partners in the field of retail and gas stations. Maintaining a stable rate of FlyPenny Coin (FLPN) tokens on exchanges, implementing the service in different countries of the world,	+100000	Planned

Date	Name of work on the FlyPenny project	Budget, \$	Readiness
	creating representative offices, working with regional partners, popularizing the service		
2Q 2023	Connecting partners in the field of retail and gas stations. Maintaining a stable rate of FlyPenny Coin (FLPN) tokens on exchanges, implementing the service in different countries of the world, creating representative offices, working with regional partners, popularizing the service	+200000	Planned
3Q 2023	Connecting partners in the field of retail and gas stations. Maintaining a stable rate of FlyPenny Coin (FLPN) tokens on exchanges, implementing the service in different countries of the world, creating representative offices, working with regional partners, popularizing the service	+300000	Planned
4Q 2023	Connecting partners in the field of retail and gas stations. Maintaining a stable rate of FlyPenny Coin (FLPN) tokens on exchanges, implementing the service in different countries of the world, creating representative offices, working with regional partners, popularizing the service	+500000	Planned

We expect the project to reach the payback point in the first quarter of 2023, as the number of project users grows and partner networks from retail and gas stations connect to the service and reach their design capacity.

## Project recognition

Interest in connecting to the FlyPenny service has been shown by several potential partners who expect the number of FlyPenny users to become comparable to the number of loyalty cards they have issued of their own design, about 5 million.

Among the largest potential partners in Russia, their interest in connecting to FlyPenny has already shown:

- Network of gas stations Lukoil
- Network of gas stations Tatneft
- Retail chain of Dixy products
- Russian Railways
- Sberbank
- MTS Bank

The FlyPenny project is appreciated by leading experts in the field of IT technologies and finance, namely:

- **MTS**: winner of the Start-Up contest #TELECOMIDEA in the FINTECH nomination (financial technologies) in 2018.
- **Beeline**: winner in the nomination Beeline 5G Digital Experience held at the GoTech Arena in 2019.
- **Sberbank**, Transactional Business Division: Special winner of the competition held by VISA Everywhere in 2019.

## Team

The FlyPenny project involves specialists of the highest class at the international level.



**Vasily Gromov**  
CEO, Founder  
founder the bbworkspace.ru project



**Boulat Ahmad**  
Director of Financial Markets,  
Vice President of Merrill Lynch, 2008 -2009



**Dvorkovitch Arkadii**  
Consultant



**Churakov Alexandre**  
COO



**Igor Danshin**  
CMO, promotion and marketing,  
vice president of Diasoft, 2005-2010



**Ponomarev Iliya**  
Lead Mobile Application Developer



**Solyanichenko Stanislav**  
Lead developer of back-end applications



**Kluev Andrei**  
Lead developer of IoT devices

## Links

- 1) <https://en.wikipedia.org/wiki/Cryptocurrency>
- 2) <https://bitcoin.org/bitcoin.pdf>
- 3) <https://github.com/ethereum/EIPs/issues/20>
- 4) [http://www.usgovernmentspending.com/debt\\_central.php](http://www.usgovernmentspending.com/debt_central.php)