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Writepaper

P L A C E



Abstract

Today the penetration of basic principles and benefits of using blockchain is everywhere: it can be encountered in the game and entertainment industries as well as in the most important activity spheres of society – health care, education, personnel market, payment networks, and investments, and even in the organization of the electoral process.

The form of attracting investments into such spheres has changed as well – having gone from writing business plans and supplying them to banks to be presented in the offices of leading venture funds to rapid development of digital circuits of crowdfunding called ICO in the professional sphere.

In other words, investing has come to full tokenization of this important process.

At the same time, already in the period of its formation and early development ICO caused resentment from a number of regulators, disappointed investors and the expert community.

The reasons for this are simple – the same economic laws operate in a world of crypto-currency venture investments just as in the sphere of traditional classic startups: 90% of all beginnings are going to be closed because of a number of reasons – lack of financing, absence of necessary experience and skills in the team, while sometimes just the irrelevance of the product or service in the market.

Systemizing all of its cumulating experience in the investment sphere, OnPlace focused all of its attention on one prioritized direction of developing financial markets, chiefly through the ICO mechanisms – investing into the businesses of closed private companies.

We can say with absolute certainty that investment into private IT companies has become one of the most reliable ways to get a high return percentage on investments in a relatively short period of time.

Developing the concept of the tokenization protocol of PATS, the OnPlace team set before itself the goal to lay the foundations in the partial realization of objectives to transition ICO to a new level:

- a) The token offers of IT companies actively leading their business
- b) The tokens of the best development teams and employers in the world
- c) The tokens which are responsible for innovative solutions and which have proven their necessity in the technology market
- d) The tokens with a working financial model / a monetization model and with millions of users of the service around the world
- e) The tokens which have been invested into by the biggest traditional VC investors of the world

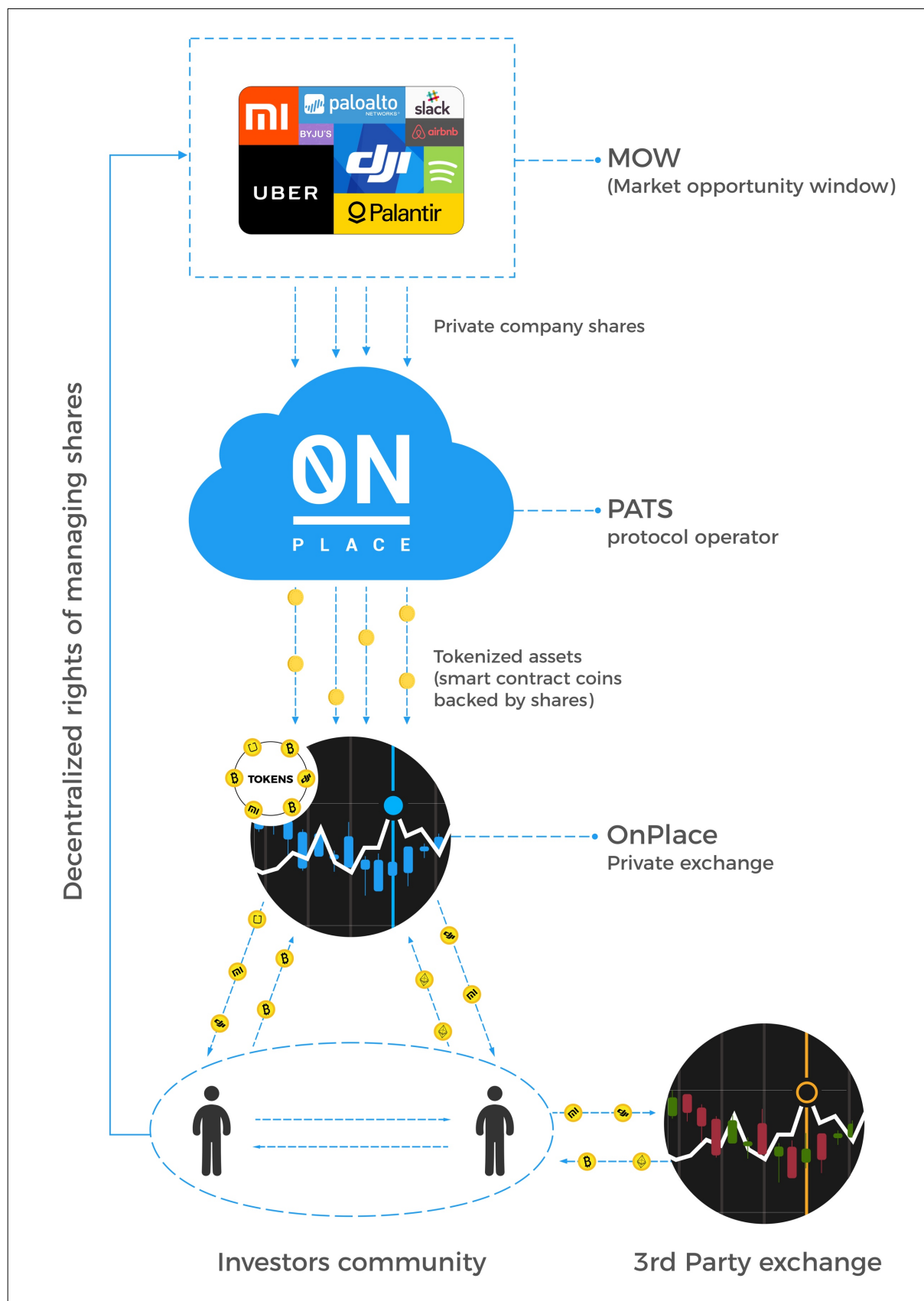
Below we present to you detailed specifications of our PATS (Private Assets Tokenization System) protocol that will allow the community of investors to make decisions in regards to the distribution and movement of the above assets in a decentralized manner.

The concept of PATS protocol. The use of the protocol for the tokenization of OTC assets

In each time period the market presents limited offers to invest in shares of private companies that comply in full with the criteria of the most secure and potentially lucrative investments.

Tokenization of such investment options based on the application of the PATS protocol assumes a certain procedure:

- a) Formation of the Marketplace opportunity window
- b) Selection of projects for tokenization based on criteria and community discussions of crypto-investors
- c) Tokenization of the selected projects of underlying assets using PATS
- d) Establishment and initial input of PATS tokens of underlying assets into liquid circulation
- e) Support of tokens during their life cycle, ensuring a fully decentralized control of the token by the token holders community



1. Formation of Marketplace opportunity window (MOW) and selection of projects for tokenization

When creating a pool of Marketplace opportunity window (MOW) projects related to investing in private companies, modern methods of assessing business metrics will be applied. Business selection for investment will be made taking into account its compliance with a number of criteria:

1) Work in the most promising and fast-growing segments of the IT market (it may be specialized in FinTech, Data bases, B2B, Communications, AI, data analysis, VR, payments, and many others)

2) Positive dynamics of key indicators and the company's operational business metrics, for example: stable quarterly revenue growth rates (annual) and customers / services users increase

3) Successfully conducted funding round stages "seed" and "A"

4) Been funded by leading VC (several funds) at earlier stages

5) Strong competitive position in the industry, and absence of big monopolist competitors. Presence and successful development of similar products / services in the markets of other regions



The development of the protocol and the first wave of improved functionality assume the implementation of a community participation mechanism in the formation of MOW, and selection of projects via voting.

2. Tokenization of selected projects of underlying assets with PATS usage, organization of liquid circulation of tokens

Fundamentally, the concept of tokenization assumes the following: everything that happens within the digital accounting system must have legal force, just as changes in the real estate registry lead to the change of land or building ownership. Tokenization in the modern understanding of blockchain has changed its approach in managing all assets: instead of administrating via orders, the asset is controlled directly through recordings in the smart contract, which are essentially analogous to the digital signature.

Applying such an approach to the management of traditional assets always brings obvious benefits: it significantly reduces costs, expands access for a large number of participants, increases the speed and safety of asset handling, allows complete control and audit.

Any commercial infrastructure for different classes of assets and properties involves a number of complex components: a depository (a register that keeps records of assets and rights), the stock exchange (of the bidding process organizer), elements of the settlement center. Tokenization before us based on blockchain suggests that all of these components will be integrated as efficiently as possible, while allowing decentralization of the entire infrastructure, having distributed storage functions and processing transactions between all parties involved.

The main task facing the OnPlace team during the development of the protocol tokenization of investments into shares of private companies became the creation of a universal scalable instrument for providing a maximally transparent and safe solution in the OTC investment field.

The use of our protocol allowed us to solve this problem and enforce a set of mandatory conditions:

- a) Use of a secure and standardized channel of account management based on smart contracts
- b) Decentralization of audit and participants' decision-making
- c) Integration of management principles directly into the asset itself

Scaling solutions based on the PATS protocol will open potential access for any person in the world to purchase OTC assets. Further development of functional opportunities of the protocol should allow simple connection of additional business-logic modules opened by API based on the architecture through improvement of smart contracts, the possibility of real-time transparent audit with access to results for all parties, the possibility of collective asset management without requiring trust, opportunity to work with any trading platform, adding to tokenized assets supplementary properties and attributes, the possibility of proving the history of ownership, the possibility of separating a tokenized asset into the smallest fractions.

Below are the definitions of key concepts and terms used further on in the document:

Tokenization - the process of creating a digital token in accordance with the technology of smart contracts, which is based on a specific underlying asset. Tokenization is the process of transforming the storage and management of an asset, wherein each asset is given a corresponding digital double.

An Underlying Asset - an asset, on which the derivative financial instrument is based, the financial derivative. In the context of this document, the underlying assets are assets of private companies not involved in the stock exchange turnover.

A Derivative – a contract, by which the parties receive the right or commit to carry-out some actions in regards to an underlying asset. Usually, opportunities to buy, sell, provide, obtain certain goods or stocks are envisaged. In contrast to a direct Sale and Purchase Agreement, a derivative is formal and standard, initially providing a possibility for at least one of the parties to freely sell this contract. The price of a derivative and the character of its changes are closely related to the price of the underlying asset.

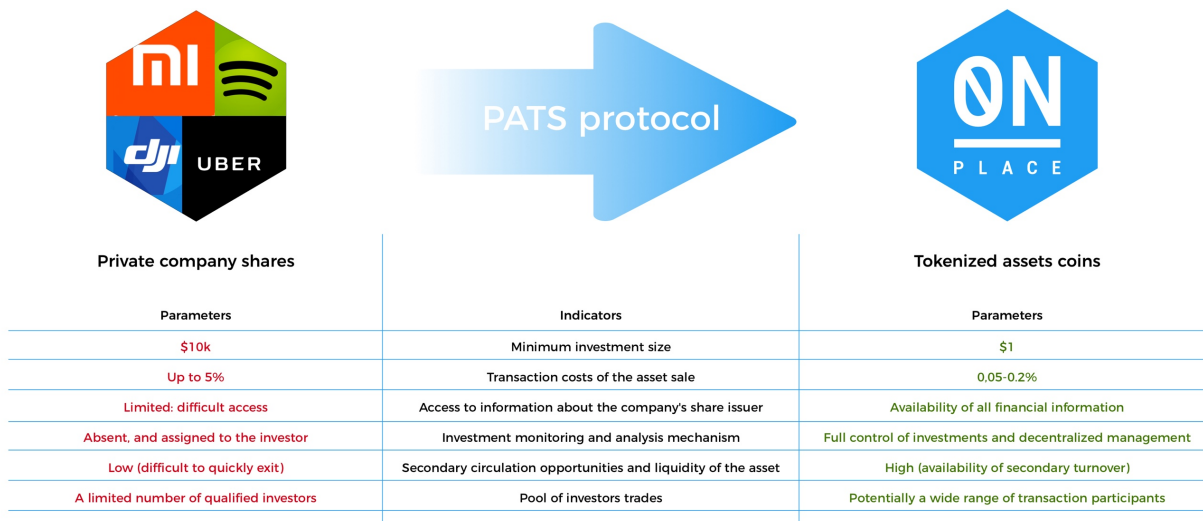
The Token Holder or the Investor – any person or user of blockchain that has received tokens created via using the PATS protocol directly from the protocol developer or from other former holders.

Private Assets Tokenization System (PATS) – a protocol created by the OnPlace team, which allows investors (the holders of issued tokens) to monitor and control operations over tokenized assets.

After completing the project selection stage OnPlace legislates legal preparations and develops an agreement, within the limits of which property rights over a part of private company shares (an underlying asset of a token) are transferred to future holders of the created tokens.

The implementation of protocol tokenization is designed to solve a set of difficulties arising in the classical scheme of venture investment:

- A high input threshold for most investors;
- High transactional costs for processing deals;
- The lack of complete information necessary to assess investment risks and assess potential cost of asset growth;
- Difficulties in the realization of an effective mechanism of audit and control of investments;
- Lack of sufficient (“secondary”) liquidity of investments;
- A complex exiting process.



Principles and the mechanism of tokenization of underlying assets included in MOW

We have developed PATS (Private Assets Tokenization System) protocol, which will allow the community of investors to make decisions in a decentralized manner in regards to the further distribution and motion of tokenized assets. The use of the protocol will mean that each decision in connection to transactions over tokens will be recorded in a network with its own blockchain and will not be subject to change.

To solve the problem of commissioning closed assets into circulation (shares of private companies) in stock turnover, we use Ethereum solutions, which allow the creation of personal units of account in blockchain and contracts for managing them.

Every underlying asset implemented using PATS protocol will be represented by a separate private token and endowed logic of decentralized management of PATS protocol.

This approach is based on the idea of creating a Decentralized Autonomous Organization, in which each holder of a token is able to directly affect the asset and determine further operations over tokens via voting. Thus, each decision in regards to operating over tokens will be registered in a network and will not be subject to change. Together with the managing and monitoring functions, PATS protocol provides autonomous safety of investors' balances from losing funds during the emission and closing of shares.

Basic PATS functions allow the investor (the holder of tokens issued on the basis of the protocol) to:

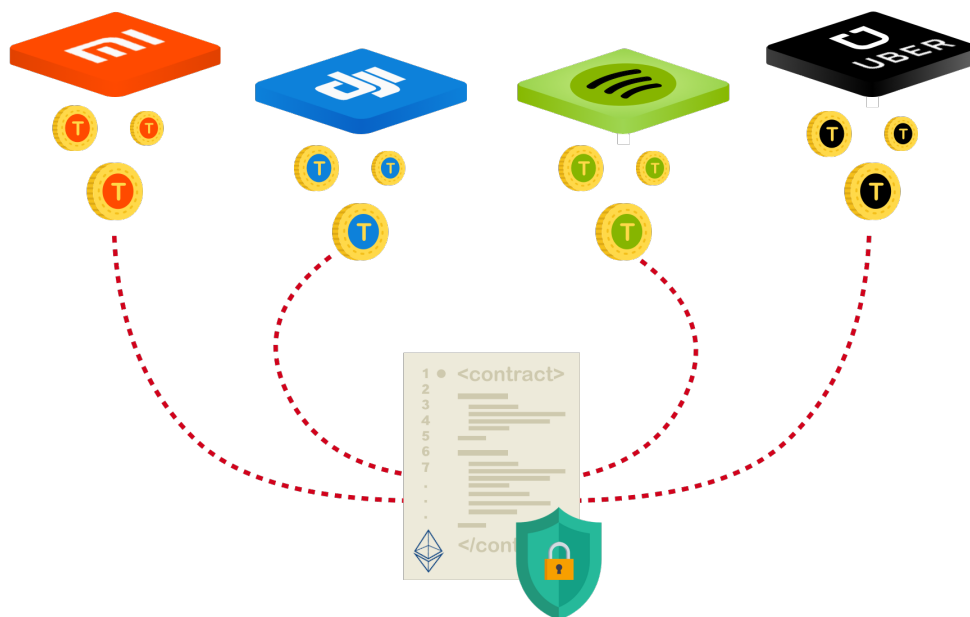
- Determine the closing date of an asset
- Add new assets for examination
- Vote for the emission of tokens of underlying assets / change the parameters of circulating tokens

- Produce equivalent trade of tokens of the PATS protocol directly, without using third-party stock exchanges

In the next versions of functionality improvement of the capacities of the protocol the following capacities will be added:

- Temporary halt of selling an asset
- Ability to add underlying assets of third parties into the PATS system using its specifications independently from the developer of the protocol.

Tokenization of investments in private IT company shares on the basis of PATS will allow obtaining exceptional opportunities in expanding the circle of potential participants in the investment process, while combining in itself the most significant benefits of the protocol – high safety level, transparency in the form of an integrated audit mechanism and the liquidity of investments (free circulation as crypto-currency assets). Using OnPlace blockchain networks based on PATS will reduce transaction costs for holders more than 10 times in comparison to traditional investment methods (the average fee will not exceed 0.1%).



All PATS tokens which will be formed, represented and imputed into circulation on our platform, will be provided with real assets – private company shares.

Every token will have a set of required attributes reflected below:

Underlying asset of a token	Token of a financial asset (a derivative created by PATS protocol)
Characteristics of an underlying asset: <ul style="list-style-type: none"> - Company name - Number and type of shares constituting the underlying asset - Value of funds invested in the formation of the asset 	Characteristics of a token (PATS derivative) <ul style="list-style-type: none"> - Token name - Number of issued tokens - Amount of rights granted to token holders
Dimension / number of the underlying asset providing the derivative	Current token price in the stock exchange circulation
The period and features of paying off the underlying asset	Current price for one unit of underlying asset (share)

Tokenized assets will be available to a wide range of crypto-investors that have passed standard procedures in accordance to the requirements of KYC/AML.

All PATS tokens will become tools of organized trades realized on their own OnPlace trading platform, specialized on decentralized management and control of their circulation and liquidity. It is assumed that in addition to trade pairs with general Ethereum and Bitcoin crypto-currencies, the PATS tokens will be available for direct reciprocal trading between various underlying assets.

Legal aspects of investors' access to trading PATS tokens, presented on platforms and stock exchanges of third parties, will be carried out in accordance with the access to trading rules of such organizations.

3) Ensuring decentralized control of the community of token holders. The life cycle of PATS tokens

Each underlying asset included in MOW (marketplace opportunity window) and tokenized on the basis of the PATS protocol with the OnPlace service will receive personal informational and analytical base that includes all of the tools (in the classic understanding of the exchange tools analysis) required to assess its financial stability, possible risks and potential development. This base in a form of understandable GUI will include the following essential components:

- A detailed card of the financial underlying asset and the characteristics of its digital token. The quantity, type and specification of underlying asset shares, current status of the project ownership share (% of participation), the next anticipated significant events, current price unit of the underlying asset, the price at the moment of tokenization of the share (if applicable), information about tokens issued into circulation with respect to the underlying asset, their enforcement by the underlying asset and information about the rights granted to the token owners will all be portrayed here;

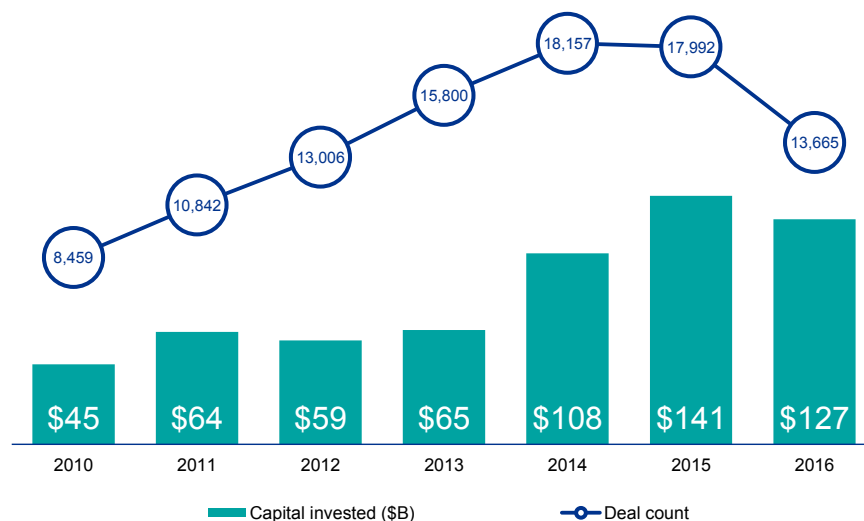
- Key financial indicators and specific metrics of the business dynamics over a number of years, used for its comparative analysis with the closest competitors (stock exchange assets or capitalizations of other private companies). There will be classic indicators of P/S, P/E, EBITDA margin types, income per employee, as well as special metrics typical for business – the number of service users and etc. – all presented here;
- Financial statements of the company (including additional reports if available); this section will include official documents of the company placed in open sources as well as sources presented to their stockholders;
- Informational and news background including press releases of special and popular publications in regards to the issuer, conclusions and ratings of specialized market experts and agencies;
- An information section about major events of the company related to fundraising, changes in structure of the stockholders and capital of the company;
- Information about key investors, who support the project and significantly influence it. Key figures of the VC investors that influence the management of operational business of the company.

Market segment analysis

a) Venture investment market size

The aggregated venture investment market size in the world in the year 2016 was estimated at \$127 billion. Its annual size in the last 3 years exceeded \$100 billion, which practically exceeds twice the amount of investments in 2010 – 2013.

Global venture financing by year
2010 – 2016



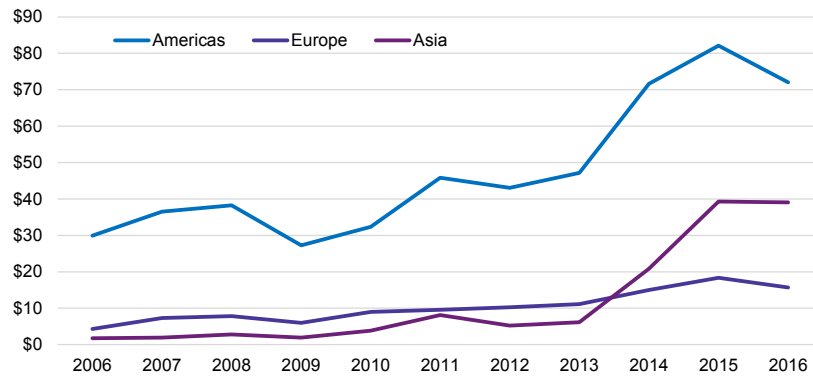
Source: Venture Pulse, Q4'16, Global Analysis of Venture Funding, KPMG Enterprise. Data provided by PitchBook, January 12, 2017.
Note: Refer to the Methodology section on page 127 to understand any possible data discrepancies between this edition and previous editions of Venture Pulse.

The largest market segments (more than 80%) in the regional focus are USA and China, which account for \$71.8 and \$31 billion respectively.

While the Asian region is characterized by stable and positive growth of investment

Global financing trends to VC-backed companies by continent

2006 – 2016, VC invested (\$B)



size, for the USA and Europe mixed dynamics of investments are more typical.

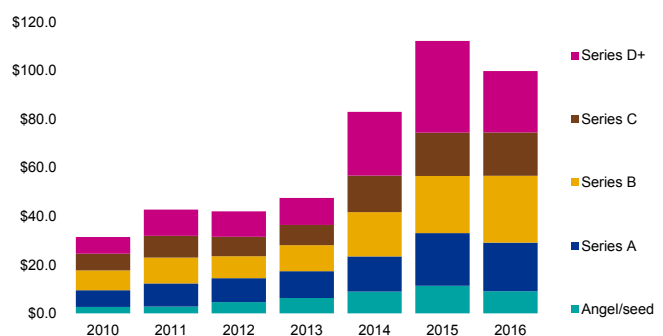
The absolute industry segment-leader remains the IT solutions domain, software, digital products and services. At the same time the share of investments in the developmental stage of

the project - financing stages B / C / D - accounts for at least 50% of the total investment size.

The size of investments in one project (within one transaction) on average is about \$4.8 million in the early stages, in the later ones already about 10.0. If one considers these numbers within specific series of financing, round A on average will require about \$5 million, while subsequent rounds - about \$10-12 million.

Quarterly global deal share by series

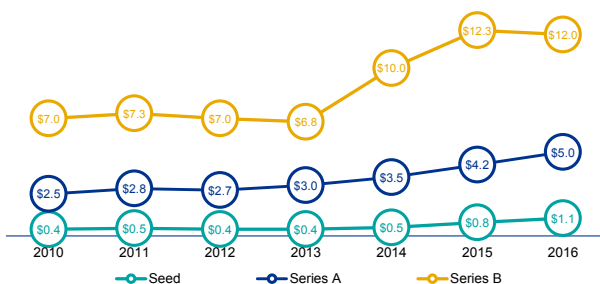
2010 – 2016, VC invested (\$B)



Source: Venture Pulse, Q4'16, Global Analysis of Venture Funding, KPMG Enterprise. Data provided by PitchBook, January 12, 2017.

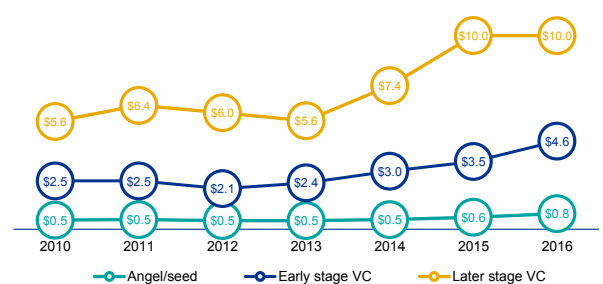
Global median deal size (\$M) by series

2010 – 2016



Global median deal size (\$M) by stage

2010 – 2016



Thus, the venture investments market is actively developing: in the medium term positive growth and 2-fold index increase within 3-5 years can be expected. Its most active segment is the sphere of IT solutions. Constant high growth rates demonstrate the investment index in the Asian region, especially in its leading region - China.

b) Crypto currency market

The total capitalization of crypto-currencies (today there are just over 800 of them) by the end of October 2017 exceeded \$180 billion, completely restoring its levels after a recent decline based on the prohibition of bitcoin trading and input of restriction on conducting ICO in China. This is ten times more than on January 1, 2017, and 25 times more than on January 1, 2016. At the moment, the market capitalization is comparable in size to the stock market capitalization of Qatar or Ireland.



Source: <http://coinmarketcap.com>

At the end of October 2017, 12 crypto-currencies have a capitalization in excess of \$1 billion, and total of their share was 89% of the total market capitalization. The lion's share of capitalization is, of course, Bitcoin. Now it occupies about 70% of the market, and more recently - on January 1, 2017 - BTC accounted for 87% of the total market capitalization. Thus, in the last ten months the share of BTC has seriously decreased, while the altcoins demonstrate a faster growth in value.

In themselves, crypto-currencies can be divided into two types: directly currencies (that is, payment instruments or elements of the payment infrastructure) and crypto-assets (a rough analogue of the share - a share in the project). In the total capitalization of the market, crypto assets still hold a small share: only about 4%, while maintaining a large growth potential. Also on the market appeared crypto-currencies, which are an infrastructural function for crypto assets, a kind of superstructure for the functioning of crypto assets. And it was the appearance of crypto assets that caused Bitcoin to decrease in the total market capitalization.

In the medium-term perspective for 3-5 years most industry experts keep the high expectations of market capitalization growth rates. The most authoritative experts believe that the growth will be from **50 to 100% per year**.

c) Segment market analysis of private IT companies

The profitability of investing in the business of the most successful IT companies implemented in our service is the most realistic alternative to investing in cryptocurrencies: see the presented calculations below.

Company	Round A stock price	Round B/C stock price	Stock price on 3Q 2017	Price growth, % 2017 / round B	Period from round B to 3 Q 2017
Slack Technologies, Inc.	0,1	0,4	7,8	1950%	4-5 years
illumio	0,12	0,63	3,28	521%	3 years
Lyft, Inc.	0,76	4,25	32,15	756%	4 years
Postmates, Inc.	0,4	1,67	5,27	316%	2,5 years
The average by IT sector private companies				886%	

Source: company data, data from <https://www.crunchbase.com>, OnPlace calculations

That is, on average, investments in the portfolio of private companies ensure an investment growth of 8-10 times or about 200% per year.

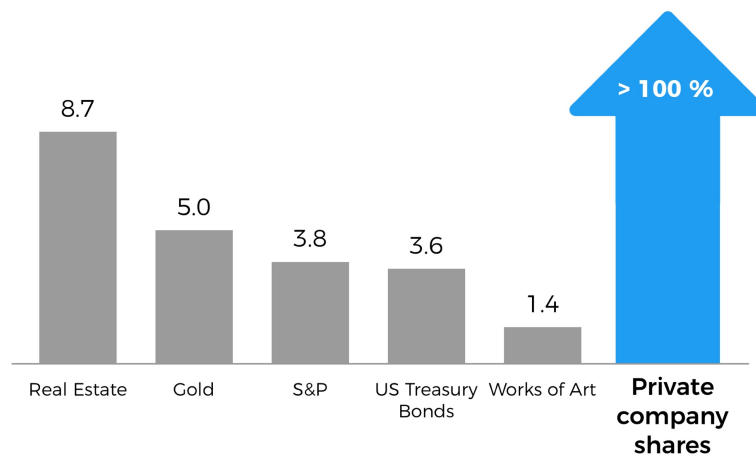
At the same time, such investments allow to reduce investment risks to a minimum because they are not subject to high volatility, are provided with a diversified structure of the investment portfolio, and even with the fall of individual stocks, they allow to remain the overall portfolio of investments in the profit zone.

If we consider the current market of investments in private companies, shares of the following companies can be highlighted as the most appropriate projects for potential investments and MOW formation at the time of writing the document: **Slack, Zenreach**. The most telling examples of business capitalization growth that could become investments with the use of PATS in 2012-2014 (3-5 years ago) are **UBER, Spotify, Xiaomi, Airbnb, Palantir**.

As the results of the comparative analysis for the last number of years show, for investments into traditional stock exchange assets and property objects the return is rather limited and was at a moderate level: from 1.5% a year for art objects to a maximum of 9.0% for fairly volatile real estate market.

At the same time the average annual return from investing into businesses of leading private IT companies is estimated at about **100-200%**, and in some cases can reach up to **500%** (which is broadly comparable with the revenue from the price growth of individual crypto-shares, but at a much lower risk of investing).

Average annual return on assets 2000-2017 (%)



Source: LAToken asset platform data, OnPlace calculations

Financial expectations. The revenue model of the company

The use of PATS protocol and derivation of tokenized tools into the market for investments in shares of OTC will allow OnPlace to successfully conduct operational activities and bring high income.

During the formation of financial indicators within this document, we proceeded from the following basis: in the medium term perspective the growth rates of venture investments will be positive and are estimated not less than 10%, the market size of tokenized OTC investments will also be positive within the dynamics of the venture investment market, although given its current growth rate, there is a higher probability of significantly faster tokenization growth.

At that, the investment shares through PATS will not exceed 1% of the shares of the venture market, which is also quite conservative, yet meets the requirements of the maximum moderate realistic business development.

OnPlace revenue will be shaped by incomes from 2 main sources: a charge (included in the final price of the shares) for tokenization of OTC investments and charges collected from secondary circulation of tokenized assets.

The main indicators characterizing expected revenues from operating OnPlace business are shown below:

Indicators	Unit	Year 1	Year 2	Year 3	Year 4	Year 5
Market growth rate of VC investment	%		10%	10%	10%	10%
Potential market size of VC investments in the IT sector (B/C/D financing stages)	billion \$	31,75	34,9	38,4	42,2	46,4
Average investment value in 1 project on the B/C/D financing stages	million \$	7,00	7,70	8,50	9,40	10,30
Number of tokenized assets / projects via PATS protocol	unit	10	13	20	20	30
Investment size in OTC assets (PATS tokens) in a period	million \$	70,00	100,10	170,00	188,00	309,00
Cumulative total of the general size of assets (PATS tokens) in circulation	million \$	70,00	170,10	340,10	528,10	837,10
Assessed market size of tokenized PATS assets in comparison to the segment VC investment market	%	0,22%	0,29%	0,44%	0,45%	0,67%
Average fee size for tokenized PATS assets	%	5%	5%	5%	5%	5%
Income from tokenized assets	million \$	3,50	5,01	8,50	9,40	15,45
Expected share of PATS tokens in circulation in the secondary market out of the total size of tokenized assets	%	20,0%	20,0%	20,0%	20,0%	20,0%
Average fee size for purchase and sale deals during the circulation of PATS assets in the secondary market	%	0,2%	0,2%	0,2%	0,2%	0,2%
Income from PATS tokens circulating in the stock market	million \$	0,03	0,07	0,14	0,21	0,33
Annual income from the operating business	million \$	3,53	5,07	8,64	9,61	15,78
Operational expenses of the company for the period of (-)	million \$	-0,50	-1,00	-1,50	-1,80	-2,00
Annual net income	Million \$	3,03	4,07	7,14	7,81	13,78

Sources used:

- Distributed Lab /<https://forklog.com/tokenizatsiya-aktivov-kak-sposob-povysheniya-ih-tsennosti/>
- The Commodity Futures Trading Commission (CFTC)
<https://www.coindesk.com/cftc-ruling-defines-bitcoin-and-digital-currencies-as-commodities/>
- Ethereum foundation / <https://ethereum.org/>
- <https://www.crunchbase.com/>
- <http://coinmarketcap.com;>
- KPMG Enterprise; <https://www.kpmgenterprise.co.uk/>
- LAToken asset token platform; LAToken.com