



# KVANTOR

**White paper**

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All materials listed below are informational and can be changed by KVANTOR team upon their's decision.



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# 1. Premises for the Project Implementation

The rapidly developing web-centricity and data-centricity of the modern business and state control systems provide the elimination of intermediaries between participants of economic activities, 'uberization', maximum transition to direct transactions using modern informational platforms. The distributed ledger technology (blockchain) and digital tokens based on it are becoming an object of scrutiny and the promising investment niche for the business community.

The world's major banks and financial institutions have already formed several consortia creating technology platforms for the corporate market, among which the most famous are: HyperLedger, Ethereum Enterprise, Ripple, Corda. But none of the platforms, which are being developed in the world, doesn't solve the task to get rid of conventional dollar and financial mechanisms, that to provide actual freedom of transactions, price formation, to release economic and national interests from political pressure exerted by conventional financial institutions.

## 2. Goals and the Idea of the Project

The goal of the KVANTOR project is to give a **real freedom** to economic agents of the global market.

- to use the advanced technology of settlements;
- to make fast transactions for competitive and acceptable prices uncontrolled by cartels and corporations;
- to reduce costs for clerks, lawyers, «contract management specialists» and issuing of multiple unnecessary documents;
- to transfer capitals simultaneously (in most cases, automatically) to those development points, which give the largest profit with minimal risks.

The platform will allow decreasing money transfer terms down to minutes, transaction expenditures and risks of mistakes — almost down to zero, and volume of required documents — down to minimal possible one.

Using KVANTOR, commodity exchanges will be able to provide their clients with services based on the technologies of the future, and banks will become not just financial institutions but full business partners.

We create an instrument for the formation of the ecosystem of equal economical agents (from physical entities to transnational corporations) that has no entry barrier, provides its participants with win-win model work and erases economical and political borders but herewith possesses the highest level of data protection.

## 3. Project Description

### 3.1. Problem Solving

According to the study by PwC<sup>2</sup>, change of existing form and structure of banking sector is inevitable. By 2025-2030, the market economy will be able to exist without banks in their traditional sense. The only question is how and to what extent they will change.

McKinsey report<sup>3</sup> states that the banks will wage an intense fight for their ways of doing business. The decrease in the share of income and proceeds from payments processing, lending to small and medium-sized businesses, asset management and mortgage lending is estimated in the report from 10% to 35%.

In order not to lose their significance, the present financial institutions should rapidly develop and introduce new services based on prospective technologies (ultimately, blockchain), which will be able to transform their business within 10–15 years.

The KVANTOR platform:

- Provides the opportunity for banks to provide brand new services (, cryptographic scoring, digital bank guarantees, etc.) not refusing from the standard ones, which are familiar to the client (and the bank);
- Provides financial structures with smooth transition to usage of business models of the future;
- Transforms the existing banking and trading system developing them in a natural way.

In addition to the introduction of new technologies, banks and companies are already facing the task of qualitatively reducing operating costs.

According to the study of total data of operational expenditures of 8 largest (by level of income) investment banks of the world conducted back in 2017 by McLagan by means of High Performance Investment Bank model, using blockchain technologies, the participants of the study would have been able to save 8 billion dollars with current total value of expenditures of 30 billion dollars.

In other words, total saving for all 8 banks would have been equal to 27% consisting of the following:

- **70%** is potential decrease of expenditures for major financial accounting as a result of optimisation of data quality, transparency, and internal control;
- **30–50%** is potential decrease of expenditures for compliance with requirements of legal regulation, both at the product level and in total, due to increase of transparency and easiness of re-check of financial transactions;
- **50%** is potential decrease of expenditure for centralized activity, such as KYC, and servicing of new clients due to enhanced mechanisms of digital personal identification and simplification of cooperative access to client data for all participants of the process;
- **50%** is potential decrease of expenditures for business activities: Activity of support and transaction control specialists, clearing and mutual payments, investigations may be fully or partially automated by means of decrease of necessity of such current key elements as reconciliation and confirmation of transactions and analysis of wrong transactions.

The blockchain technology which is the base of the KVANTOR platform will make it possible to refuse from a large amount of modern operational infrastructure qualitatively enhancing key processes and seriously influencing decrease of expenditures.

2 [https://www.pwc.ru/ru/banking/assets/future\\_shape\\_of\\_banking.pdf](https://www.pwc.ru/ru/banking/assets/future_shape_of_banking.pdf)

3 <https://www.ft.com/content/a5cafe92-66bf-11e5-97d0-1456a776a4f5#axzz3n1JscyBR>.

Additionally, the platform solves the problem of provision of the necessary level of confidentiality of the transactions. It's designed in such a way that only the parties of the transactions possess the full information of them. The service companies obtain only the information to which access was granted, which the participants have allowed to obtain themselves, the national regulators obtain information only in accordance with the national legislation, and unauthorized regulators (for instance, from other countries) won't be able to get any information at all.

### **3.2. Key Entities of the Project and Their Interest in the Project**

The KVANTOR platform provides the following opportunities:

#### **For companies:**

- Direct settlements with contractors in national currencies (avoiding traditional channels and protocols of monetary circulation);
- Convenient marketplace with automatic execution of transactions, complementary services (logistics, insurance), electronic arbitrage;
- Verification of the counterpart — the platform's architecture allows to check counterpart's status and reputation beforehand without any violation of information confidentiality, which is the high priority for us;
- Usage of financial instruments (financial guarantees, factoring, etc.) and complementary services (insurance, etc.) based on new technologies — automatically executed smart contracts — for transaction security;
- Sufficient decrease of financial and time expenditures for execution of transactions;
- Trading of assets/liabilities in decentralized mode;
- Protection of confidential information from unauthorized regulators.

#### **For banks:**

- Independence from centralized payment systems (provision of alternative safe channel, which may be used for either all or specialized transactions/clients);
- Engagement of new clients by means of provision of innovative banking services demanded by small, medium and large businesses;
- Protection of confidential information from unauthorized regulators.

#### **For government:**

- Protection from control of economical operations(with no access) exercised by IMF, NSA and other unfriendly institutions/regulators;
- Execution of all operations on the basis of consensus of the stakeholders;
- Increase in national monetary aggregates and decrease of actual operations in foreign currency, increase in the country's financial stability;
- In prospect, creation of a governmental settlement platform and uniting on its basis of interested entities and political blocs.

### 3.3. KVANTOR Platform Products and Services

The KVANTOR platform:

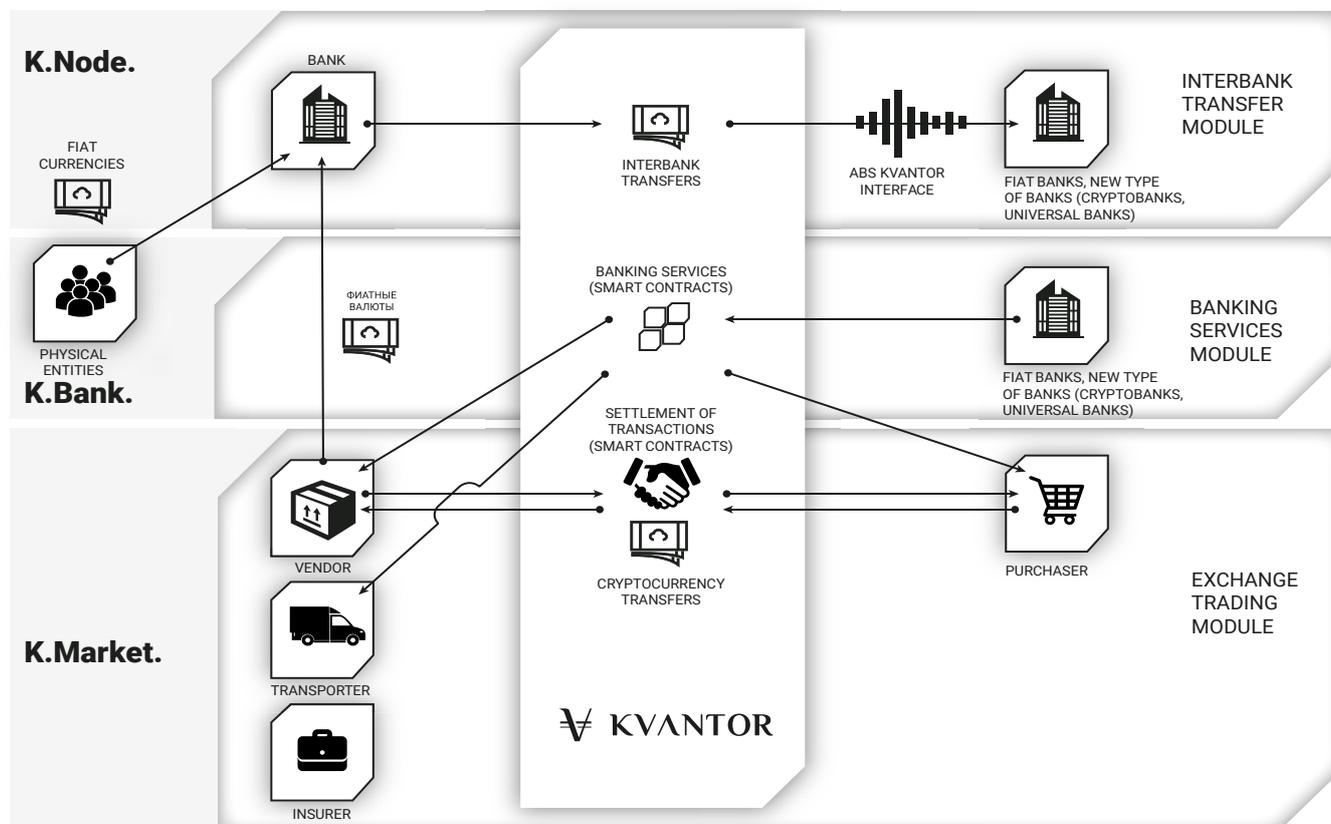
- enhances the functionality of Automated Banking System (ABS) of the core bank (or the system of several partner banks) of the ecosystem by means of opportunities provided by the blockchain technology (for money transfers, payments and provision of services without use of conventional channels (SWIFT, etc.) with the relevant elaboration of financial and legal aspects;
- complements the standard functionality of business platforms of currency exchanges and commodities and raw materials exchanges by means of opportunities to operate with instruments expressed in digital tokens, possibilities of direct settlements between the customers and the suppliers.

#### Major products (services) of the KVANTOR platform:

1. **Interbank transfers:** Transfer of fiat currencies and digital instruments between the banks.  
Consumers: Banks.
2. **Banking services:** Money transfers (intercompany), clearing, bank guarantees, factoring, etc.  
Consumers: Clients of bank clients participating in the KVANTOR ecosystem.
3. **Exchange trading services:** Agricultural exchange (meat, fish, corn), commodities and raw materials exchange (oil, coal, gold). Users: manufacturers and purchasers of goods.

### 3.4. Architecture and Functional Elements of the KVANTOR Platform

#### Appendix 1. Detailed Architecture of the KVANTOR Platform



**Interbank transfer module** is provision of a channel to exchange messages on money transfer operations between the banks. Special software mechanism for exchange of messages on changes of bank accounts during money transfer between the banks is being developed as part of the platform.

- All data about these operations is stored in the KVANTOR blockchain that is based on the algorithm of consensus, which, in turn, is based on the traditional Proof of Authority and optimized for the tasks of the project to ensure the necessary speed of transaction processing and protection against logical attacks on the network.
- Software mechanism of message exchange will use the functionality of legally valid electronic document flow (e-signature)<sup>4</sup> complying with the legislation of the countries where participants of the KVANTOR ecosystem reside.
- The software mechanism interacts ABS of the banks via special interface (API<sup>5</sup>). For this purpose, the KVANTOR system node is placed in the bank, and messages are exchanged via an encrypted channel.
- Money transfers are carried out using the usual attributes, analogical details of SWIFT protocol, which allows to minimize the changes of the existing ABS and integrating blockchain technologies into the banking systems as smoothly as possible. Such solution gives the banks an option — either use SWIFT and KVANTOR at the same time or start using only KVANTOR in due course.

<sup>4</sup> Electronic signature.

<sup>5</sup> API – Applications Programming Interface.

**The Banking services module** is an enhancement of the previously developed software mechanism of message exchange on interbank transfers. It includes the following options:

- Transfers between the companies;
- Credit services;
- Bank guarantees;
- Factoring;
- Escrow.

For the provision of these services, the special smart contracts interacting with ABS's are being developed within the KVANTOR platform and the whole history of operations with the clients will be kept in the platform blockchain.

Moreover, the KVANTOR platform will give the users the possibility to cooperate with «banks of the future» — crypto-banks, which will perform the same operations as the classic banks but in crypto currency.

Hence, in parallel with conventional channels of interaction between the participants of the classic banking ecosystem, channels, and interactions based on blockchain and smart contracts are being established.

Access to the module of banking services will be provided to users through a special portal where banks will implement the business logic of working with services. At the time of recording the agreements (for example, on granting a loan or issuing a guarantee) or executing operations (real cash flow on accounts), the platform smart contracts will accordingly change the status of banks and consumers accounts in classic banks ABS (using previously developed software mechanisms) or crypto-banks.

**The Exchange trading module** allows to make transactions with commodities, effect insurance for it, issue all minimum required documents, obtain the required financial instruments (guarantees, loans, etc.) and make a simultaneous payment using a convenient instrument via the convenient channel (also bypassing SWIFT) in one place.

For implementation of all these opportunities, the Exchange trading module includes the following functional elements:

#### **1. Settlement of transactions between the participants;**

Business logic of settlement of transactions between the participants of the exchange is similar to the existing commodities and raw materials exchanges: The platform provides the consumers with a decentralized service, using which they can find each other, arrange tenders, exchange with commercial proposals, obtain information from the world's leading commodities and raw materials exchanges, etc.

In addition, the KVANTOR provides a number of brand new options for the exchange trading participants increasing reliability and transparency, as well as the economic effect of transactions:

- Use of smart contracts to record the transaction and control its execution;
- Issuance of payment documents, settlement of payments between the parties of transaction, issuance of guarantees, etc. using the previously developed banking services module.

It is considered in future the usage<sup>6</sup> of IoT<sup>7</sup> instruments for full automation of accounting of the fact of transaction execution and automatic activation of smart-contracts when moving tangible assets.

## **2. Complementary Services**

Apart from the transaction with commodity producers, the platform allows making transactions with providers of complementary services, which typically complete any commodity transaction — transporting and insurance.

These service providers offer these services in specific sections of the portal using smart contract mechanisms.

## **3. Use of national currencies**

The platform's technology allows to use a number of currencies within one system (ruble, RMB, tenge, etc.).

At that, the buyer sees the price of goods in his own currency, the seller – in his own, and the built-in calculation mechanism determines the most favorable price values under similar conditions of delivery and payment, based on all available offers of platform participants and exchange rates of the leading exchanges.

As a result, the transaction participants get the most profitable offer in their currencies.

## **4. Consideration of digital specificity**

The exchange functionality is implemented with consideration of digital specificity:

- Operation with fiat currencies of the countries of the region being the target of exchange trading, as well as with the most common instruments of these countries is provided;
- Protection of online transactions using mechanisms of custody and escrow is provided;
- Convenience for the user including multilingual interface optimal for speculation, convenient and fast pay-in and pay-out of currencies upon profitable conditions, integration with a large number of payment systems, various bonus programmes (preferential fees, cashback, bonus distribution of digital coins, etc.) is provided.
- The possibility of crediting funds to participate in trades in digital currencies, to secure their obligations.

## **5. Special benefits**

Apart from the benefits stated above, the exchange trading module provides the users with a number of special functions:

1. Audit/monitoring of transaction in the system;
2. Arbitrage of bargains/transactions (referees court);
3. Informational and news service for participants of the system.
4. Integration of exchange service with the software of participants.
5. Integration with the legally valid electronic document flow compliant with the legislation of the countries where participants of the KVANTOR ecosystem reside.

### 3.5. Business Model Concept

The platform generates revenues by means of the following «elementary services» (revenue drivers):

1. Platform technical support
2. Banking services:
  - Money transactions (intercompany) — amount fee;
  - Bank guarantees — amount fee;
  - Factoring — amount fee;
  - Escrow accounts — amount fee;
  - crediting- amount fee.
3. Exchange Trading Services:
  - Agricultural exchange (meat, fish, corn, etc.) — fee based on the total amount of operations
  - Raw materials exchange (coal, gas, gold, ...) — fee based on the total amount of operations;
- The exchange trading platform will also include an option to provide complementary services, such as insurance, transportation, etc. Suppliers offer their services, participants choose a supplier and secure agreements with him through a smart contract. Settlements between the participants of all relations are performed via the platform (see above in clauses 1) and 2) of this section).
- An additional mechanism of the exchange platform income will be the mechanism of cross-rates used in transactions. The seller and the buyer see the proposals in their national currency. The platform calculates the values in the currencies of the transaction participants taking into account the mutual rates on different currency exchanges and selects one that is beneficial to all three parties – the seller, the buyer and the platform.

The Project's Revenues and Expenditures model is built on the basis of the following assumptions.

### 3.6. Project Revenues and Expenditures model

The Project's Revenues and Expenditures model is built on the basis of the following assumptions.

Name	MIn USD				Year 1		Year 5	
	Globally	Russia	KVANTOR (year 1)	KVANTOR (year 5)	KVANTOR's share in Russia	KVANTOR's share globally	KVANTOR's share in Russia	KVANTOR's share globally
Average volume of interbank operations per month	37,462.8	7,492.6	46.0	440.2	0.61%	0.12%	5.88%	1.18%
The average volume of monetary transactions (Foreign Economic Activities) per month	311,664.9	37,462.8	230.2	2,201.0	0.61%	0.07%	5.88%	0.71%
Lending per month	124,878.5	15,609.7	82.9	792.3	0.53%	0.07%	5.08%	0.63%
Bank guarantees per month	70,243.8	12,956.0	64.5	616.3	0.50%	0.09%	4.76%	0.88%
Escrow accounts per month	109,240.1	14,040.7	92.1	880.4	0.66%	0.08%	6.27%	0.81%
Factoring per month	109,268.2	9,053.6	59.9	572.3	0.66%	0.05%	6.32%	0.52%
Agriculture exchange (meat, fish, corn, ...)	62,438.9	7,024.4	34.5	330.1	0.49%	0.06%	4.70%	0.53%
Raw materials exchange (coal, gas, gold, ...)	140,487.7	13,268.3	80.6	770.3	0.61%	0.06%	5.81%	0.55%

With these assumptions, the project model will be as follows.

Revenues, USD	Starting year	Year 2	Year 3	Year 4	Year 5
		24 months	36 months	48 months	60 months
Commission for technical support of the banks		208,975	945,364	1,532,485	1,970,338
<b>Technical support</b>		<b>208,975</b>	<b>945,364</b>	<b>1,532,485</b>	<b>1,970,338</b>
Monetary operations fee		287,804	1,321,949	2,146,338	2,751,215
Credit services fee		414,438	1,903,607	3,090,727	3,961,750
Bank guarantees fee		322,341	1,480,583	2,403,899	3,081,361
Factoring fee		299,317	1,374,827	2,232,192	2,861,264
Escrow accounts fee		230,244	1,057,559	1,717,070	1,100,972
<b>Banking services</b>		<b>1,554,144</b>	<b>7,138,525</b>	<b>11,590,226</b>	<b>14,856,562</b>
Agriculture exchange (meat, fish, corn, ...)			158,634	257,561	330,146
Raw materials exchange (coal, gas, gold, ...)			370,146	600,975	770,340
<b>Currency exchange operations</b>			<b>528,780</b>	<b>858,535</b>	<b>1,100,486</b>
<b>Other income</b>			<b>10,576</b>	<b>17,171</b>	<b>22,010</b>
<b>Total revenues per month</b>	<b>0</b>	<b>1,763,119</b>	<b>8,623,245</b>	<b>13,998,417</b>	<b>17,949,396</b>
<b>Total revenues, aggregate</b>	<b>0</b>	<b>6,107,698</b>	<b>63,090,631</b>	<b>199,098,531</b>	<b>391,736,390</b>
<b>Expenditures per month</b>	<b>1,970,564</b>	<b>1,257,302</b>	<b>3,299,906</b>	<b>4,897,736</b>	<b>6,133,248</b>
<b>Expenditures, aggregate</b>	<b>23,646,763</b>	<b>33,947,856</b>	<b>59,654,913</b>	<b>109,211,801</b>	<b>175,703,220</b>
<b>EBITDA per month</b>	<b>-1,970,564</b>	<b>505,817</b>	<b>5,323,339</b>	<b>9,100,681</b>	<b>11,816,148</b>
<b>EBITDA, aggregate</b>	<b>-23,646,763</b>	<b>-27,840,159</b>	<b>3,435,718</b>	<b>89,886,730</b>	<b>216,033,169</b>

### 3.7. KVANTOR platform competitors

	Kvantor	Ripple	SWIFT	Corda R3/ Marco Polo (tradeix)	VISA	Mastercard	FTT (Starhub)	Beluga Pay (p2p)	Bankex
The Project Team	Cyprus	USA	Belgium	USA	USA	USA	Singapore	Mexico	USA
Transaction fee	No	0.00001 USD	10–20 USD	ND	ND	0.015 EUR	ND	ND	ND
Transaction tracking service	Yes	Yes	No	No	No	No	ND	ND	ND
Open API	Yes	Yes	No	Yes	Yes	Yes	ND	ND	ND
Number of transactions per second	50,000	50,000	10,000	ND	45,000	45,000	ND	ND	5,000
Actual decentralization	Yes	Yes	No	No	No	No	No	Yes	Yes
Number of monetary transfers per day	Project under development	ND <sup>6</sup>	2 mil	ND	200 mil	90 mil	ND	ND	ND
Mining opportunity	No	No	No	—	—	—	—	No	No
Transaction amount limit	No	No	No	No	No	No	No	No	No
Multicurrency service	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Ripple<sup>7</sup> is the main competitor of the KVANTOR platform.

Advantages of the KVANTOR platform:

- Transparency (see below section 6.1) whereas Ripple is a proprietary instrument, which increases risks of dependence on the manufacturer and its owners and decreases attractiveness to the extent of building of actually decentralized ecosystems;
- Seamless integration with mechanisms of commodity transactions' implementation (not available in Ripple and not planned to be developed);
- Internal mechanism of prices and rates evaluation provides an opportunity of receiving an additional revenue to the platform's owners.

6 No verifiable open data.

7 [www.ripple.com](http://www.ripple.com)

## 4. Legal Aspects of the Project

### 4.1. Project Legal Structure

The project will be implemented by means of establishment of a legal entity under jurisdiction of Republic of Cyprus with the following tasks:

- Organization of finance management Accumulation of revenues from sales of services and rights to the KVANTOR platform and possession of intellectual rights to the KVANTOR platform.

Technical development of the KVANTOR platform will be performed by a legal entity under jurisdiction of the Russian Federation, which is intentionally funded by the Foundation and develops the KVANTOR platform.

### 4.2. Legislative Consideration

In the course of our operation, we consider all AML requirements and measures (anti-money laundering — a complex of measures to prevent the use of financial system of the particular country or particular financial institution for legalization of monetary assets obtained in criminal way or for funding of terrorism), SEPA requirements, personal data protection laws, etc.

Below is a preliminary list of standards, norms, and laws that we will use in the implementation of the KVANTOR project:

- PSD1 and PSD2 — Directives of the European Commission, which determine the methods to improve security and protection of customers and regulate payment services in EU;
- SEPA (Single Euro Payments Area) requirements are designed to determine the rules and conditions of non-cash payments in the EU based on the requirements of PSD 1;
- eIDAS is a set of standards for electronic transactions between individuals and companies within the EU Single market;
- AML/CFT — requirements of anti-money laundering legislation and a complex of measures to prevent the use of financial system of the particular country or particular financial institution for legalization of monetary assets obtained in criminal way or for funding of terrorism;
- ISO 20022 — a standard and methodology of creation of descriptions related to business processes including exchange of electronic messages between financial institutions;
- ISO/IEC 27000 is the series of international standards, including standards for information security, including in the field of processing, transmission, storage of personal information;
- GDR (General Data Processing Regulation) is the regulations in the field of personal data processing.

The above standards, norms, and laws are mainly applied within the European Union. As far as the project expands, we'll consider standards, guidelines and laws applicable under new jurisdictions.

### 4.3. Liability Waiver

KVANTOR project tokens are not considered securities under any jurisdiction. This document is not an issue prospectus or an offer and it is not intended to serve as an offer for securities or a solicitation of an investment in the form of securities under any jurisdiction.

Because of the present uncertainty of the regulation and to provide an additional information on this issue to the public, you are allowed to purchase KVANTOR project tokens only provided that you certify, represent and warrant that you are not a citizen or resident of the United States of America, and you warrant that your principal place of residence or legal address is not in the United States, including Puerto Rico, the US Virgin Islands and any other areas owned by the United States of America.

Should any of the change, you are obliged to inform the KVANTOR project team about it immediately. Owners of the United States green cards or citizens or residents (tax or other) of the United States of America can't purchase the KVANTOR tokens. If such persons do purchase KVANTOR tokens, despite all attempts by the KVANTOR project team to prevent such a sale, such persons related to the United States will not be able to register as residents of the KVANTOR system and, accordingly, transfer their KVANTOR tokens to the depository wallet and receive income. In this case, the KVANTOR project team will apply to the current legislative framework and take all necessary actions to ensure compliance with the requirements of the law.

If the residents of the KVANTOR system do not fulfill their roles or violate the rules imposed on the residents of the KVANTOR system (for example, it turns out that a participant is a person from the United States), the status of such participants can be withdrawn, depository wallets are closed, and deposited KVANTOR transferred to the personal wallet of the owner without accruing any income. Every potential purchaser bears direct liability and should personally ensure legality of purchase of KVANTOR under the purchaser's jurisdiction, as well as ability to resell KVANTOR to other purchaser after purchasing them.

The KVANTOR project team reserves its right to refuse to sell KVANTOR to any person not meeting the criteria required for purchase of KVANTOR in accordance with the present provisions and the applicable legislation. Especially, the KVANTOR team has the right to refuse to sell KVANTOR to citizens and residents of the USA, as well as to users not meeting the criteria specified by the KVANTOR project team from time to time at its sole discretion.

By purchasing the KVANTOR tokens, the purchaser agrees to accept all risks associated with possible financial losses.

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# 5. KVANTOR blockchain & tokens

## 5.1. Kvantor Blockchain

### What is a blockchain?

A blockchain is a distributed digital ledger that provides the technological capability for transactions to be recorded publicly, chronologically, and to reach universal agreement among any number of parties, without the need for an intermediary.

A blockchain platform typically utilizes tokens in order to enable transactions, provide an access-code for an address on the blockchain, and/or create an exchangeable tender.

### Kvantor Blockchain Overview

Kvantor has utilized cutting-edge blockchain technology to revolutionize both the banking industry and the currency exchange market. The Kvantor Platform will provide the ability for banks around the world to engage in transfers and other financial transactions without the need for antiquated, inefficient, and politically-biased protocols (such as SWIFT) as intermediaries. Instead, Kvantor enables End-Users and End-Operators to make financial transactions directly between each other almost instantaneously, in any currency desired.

Kvantor's proprietary blockchain allows for universal agreement over a distributed network, with absolute adherence. This technology has led to the creation of a platform that facilitates the processing of financial transactions in more currencies, between more operators, and across more borders, than was previously thought possible. This paradigm-shattering innovation has only been made possible through the expertise of the Kvantor Team and their pioneering use of blockchain technology. The utility of this FinTech disruption is beyond measure, and Kvantor has achieved all of this while ensuring the security, accessibility, and ease-of-access for all potential End-Users.

## 5.2. Kvantor's Proprietary Tokens

The Kvantor Blockchain utilizes tokens for its internal and external operations.

### What is a Token?

A token is an identifier code that grants access to an address on the blockchain.

Tokens can typically be exchanged between internal mechanisms, or parties, in order to facilitate (and potentially incentivize) some form of transaction, which will ultimately result in an update of the blockchain.

Tokens can also serve as exchangeable units (crypto-currencies), which can be traded for potential monetary gain on the speculative crypto-market.

There are two different types of tokens in the Kvantor Blockchain that are of note to the End-User and End-Operator, where each has its own purpose and a complex relationship exists between them.

A Potential-Value-Share (PVS) Token — The **KVANTOR** (KVT).

An Application-Currency Token — The **KVARK** (KVK)

### 5.3. The KVANTOR Token Overview

The **KVANTOR** token is a Potential-Value-Share (PVS) token. This token permits its holder to **share** in the **value potential** of Kvantor’s intellectual activities and properties.

In this context, KVANTOR is referenced in all capitals in order to differentiate it from the noun and adjective ‘Kvantor’, which is used to refer to aspects relating to the Kvantor Project. The various names for the KVANTOR token are **KVANTOR** (all caps) or **KVANTORS** (plural, all caps, except for the last letter), or with the acronym **KVT**.

In practical terms, a KVANTOR affords the Token-Holder two privileges:

1. The privilege to issue and sell licenses for Kvantor.Tech’s software products in accordance with the quota determined by the rules of the Partner Program.
2. To potentially receive a pay-share for revenues generated through the total sale of licenses, software, products, and other intellectual activity of Kvantor.Tech. This share extends to Kvantor.Tech’s holdings, such as Kvantor.Node, Kvantor.Bank, and Kvantor.Market. The potential revenue shares to be paid to the **KVANTOR Token-Holder** take the form of an application-currency token known as the **Kvark**.

These privileges generally act in a similar manner to a right, but cannot be guaranteed as the Kvantor Project remains an emergent venture. Additionally, should a KVANTOR Token-Holder violate the binding stipulations of the Kvantor Platform, such as being based in a jurisdiction in which crypto-backed assets and securities are not legal, then their privileges will be revoked by the Kvantor Team.

There is a favorable likelihood that Kvantor.Tech will register the KVANTOR token on a number of lateral crypto-exchanges, but this is not an obligation. Kvantor.Tech alone will decide whether to register the KVANTOR token on lateral crypto-exchanges by its sole discretion, and if so, on which platforms.

In the event that the KVANTOR token is registered on a number of crypto-exchanges, then the KVANTOR token will serve as the larger denomination of Kvantor.Tech’s crypto-currency for the greater market of crypto-exchange.

Similar to the majority of other crypto-currencies, the KVANTOR token can serve as an exchangeable unit of value and, as such, holds the potential to be traded for potential monetary gain on the speculative crypto-market.

The KVANTOR token has been defined here in limited scope. The **KVANTOR** also maintains a well-defined technical role and specifications within the Kvantor Platform and blockchain. To learn more, refer to the Kvantor White Paper available on the website ([www.Kvantor.com](http://www.Kvantor.com)), or request the technical documentation from the Kvantor Team.

## 5.4. The KvarK Token Overview

The KvarK token is an application-currency token. This means that its primary usage is the facilitation of commercial transactions on the Kvantor Platform, and from Kvantor.Tech LTD. The **KvarK token** may also serve as an exchangeable unit in the greater market of crypto-exchange, where it is accepted.

The KvarK token is referred to in a number of ways, such as a **KvarK token** (one word), the plural being **KvarK tokens**, a **KvarK** (proper noun caps), or **KvarKs** (plural, proper noun caps), or with the acronym **Kvk**.

The primary usage of the KvarK is for the purchase of software, licenses, services and any other products related to Kvantor.Tech's intellectual activity. This purchase will predominantly be of licenses from Kvantor.Tech by authorized dealers in order to distribute them to End-Operators (such as banks).

The price of software, licenses, and any other product of Kvantor.Tech's intellectual activity will be determined in fiat currency, and the KvarK price for those products will correspond with the current exchange rate.

Thus, if a license were to cost \$10,000 USD and one KvarK is worth 10 dollars, then the price of a license would be 1,000 KvarKs. If a KvarK were worth 100 dollars, then the price of a \$10,000 USD license would be 100 KvarKs. The fiat price of software licenses and products is set by Kvantor.Tech.

The value of the KvarK token is determined by its floating market value in relation to other crypto and fiat currencies. This value will be assessed through the token's average valuation on a number of crypto-exchanges identified by the Kvantor Team, as well as on the proprietary **Kvantor Exchange** (once launched) within the Kvantor Platform. The KvarK token will be readily exchangeable for fiat on the Kvantor Platform in order to facilitate these transactions.

The KvarK token will need to be readily accessible to authorized Dealers and Kvantor Token-Holders, even during the development stages of the project. In accordance with this, Kvantor.Tech will provide an internal exchange mechanism in advance for obtaining KvarK tokens, prior to the on-boarding of the first Operator-Licensee onto the platform. This exchange mechanism will be announced on the website and via email to all Kvantor Token-Holders as well as potential authorized Dealers of Kvantor.Tech software. Should the exchange mechanism evolve alongside further development of the platform, its users will be notified and redirected to its current format.

There is a favorable likelihood that Kvantor.Tech will register the KvarK token on a number of lateral crypto-exchanges, but this is not an obligation. Kvantor.Tech alone will decide whether to register the KvarK token on lateral crypto-exchanges by its sole discretion, and if so, on which platforms to do so..

In the event that the KvarK token is registered on a number of crypto-exchanges, then the KvarK token will serve as the smaller denomination of Kvantor.Tech's crypto-currency for the greater market of crypto-exchange. Similar to the majority of other crypto-currencies, the KvarK can serve as an exchangeable unit of value and, as such, holds the potential to be traded for potential monetary gain on the speculative crypto-market.



The KvarK token has been defined here within the scope of its relation to the End-User / End-Operator with Kvantor.Tech and the Kvantor Platform. The KvarK token also maintains a well-defined technical role and specifications within the Kvantor Platform and blockchain.

To learn more, refer to the Kvantor White Paper available on the website ([www.Kvantor.com](http://www.Kvantor.com)), or request the technical documentation from the Kvantor Team.

## **5.5. KVANTOR-KvarK Token Distribution Relationship**

The overall purpose of tokens on the Kvantor Platform is to enable and incentivize transactions that create value for End-Users, End-Operators, Partners, and to generally enhance the utility of the platform.

The KVANTOR token and KvarK token are intrinsically linked; each token maintains its own unique role aimed at supporting the larger system and achieving the end-goals of the Kvantor Project.

### **The KVANTOR Token and the Initial Issuance of KvarK Tokens**

The KVANTOR token is a unit of accounting for Kvantor.Tech licenses, and it is figuratively the 'hard' asset of value that KvarK tokens originate from and to which they are tethered.

There are 100,000,000 KVANTOR tokens in existence, which have been pre-mined and are based on the ERC20 protocol. Their quantity is definitively set and will never increase or decrease.

All KVANTORs will be sold throughout the Token Sale Periods (ITOs, and Sales Rounds) of 2018 and 2019. Issuance of KvarKs will begin once all KVANTORs have been distributed.

Prior to the first software license being sold, an air-drop of 10,000,000 KvarK tokens (10% of total) will be issued every month. This will continue until the number of tokens available is depleted (maximum 10 months) or the first license is sold.

KVANTOR Token-Holders will receive an air-drop of KvarKs proportional to their share of the total number of tokens. For example, a person who owns 0.1% of KVANTOR tokens (100,000 Kvantor tokens) would receive at least 10,000 KvarK tokens a month.

Upon the first software license being sold, a final air-drop will be implemented.

This final air-drop will distribute the remainder of all KvarK tokens to the KVANTOR Token-Holders proportional to their share of the total number of tokens. It will occur at the regularly scheduled monthly date of the preceding air-drops.

### **The KVANTOR-KvarK Token Connection in License Vending**

The KVANTOR is the primary unit of accounting for Kvantor.Tech licenses (k.key). This means that ownership of a KVANTOR grants its holder the privilege to vend/issue licenses of Kvantor.Tech products in accordance with the current regime of the Partner Program.

The Partner Program is the community, body of rules, and management team that oversees the distribution of Kvantor.Tech's products.

As stated previously, KvarK tokens are used for the purchase of software licenses and other products. When a license is activated by an authorized Dealer, the KvarK tokens that were used for redemption are 'written off' of that authorized Dealer's balance.

These 'written-off' tokens are in fact redistributed, firstly to Kvantor.Tech and secondly to the Partner Program. The split between Kvantor.Tech, and the **Partner Program** is 30/70.

If a software license is sold at the price of 1,000 KvarK tokens, then upon receipt, it will be written off of the account for 1,000 KvarK tokens.

Subsequently, 300 of those KvarK tokens will be provided to Kvantor.Tech and 700 KvarK tokens will be provided to the **Partner Program Management Team**.

The Partner Program Management Team will typically redistribute the tokens they hold across all Right-Holder members of the Partner Program KLD Community based on a recurring schedule, as deemed appropriate.

## 5.6. Kvantor License Vending & the Partner Program

### KVANTOR Token-Holder & the Privilege to Vend Licenses

As the KVANTOR is the unit of accounting for **Kvantor.Tech** Licenses, it grants the KVANTOR Token-Holder the privilege to vend/issue licenses, provided that they correctly register with the Partner Program.

Thus, the KVANTOR Token-Holder is referred to as the **Right-Holder** over licenses, and if authorized by the Partner Program to vend licenses, he/she is then referred to as the Right-Holder Dealer or **Right-Dealer**.

A person to whom the Right-Holder (KVANTOR Token-Holder) delegates the task to sell licenses to is referred to as an **Appointed Dealer (App-Dealer)**.

Thus, anyone involved in selling Kvantor.Tech Licenses is generally referred to as a **Dealer**.

A license may be sold either by the Right-Dealer or by the App-Dealer, but not by anyone else.

The person who concludes the sale of a given Kvantor.Tech License is referred to, in that instance, as the authorized **K-Closer**. The K-Closer, regardless of whether he/she is an App-Dealer or a Right-Dealer, is still bound by the stipulations defined in the prevailing regime of the Partner Program.

The exchange relationship between the Right-Dealer and the App-Dealer is determined by the two parties themselves and is not dictated by the Partner Program.

### The Partner Program & its Elements

The **Partner Program** is the sum of all rules, procedures, and engagements that concern the vending of Kvantor.Tech's software product licenses. The Partner Program is comprised of three elements, namely the Partner Program Management Team, the KVANTOR License Dealer Community (KLD Community), and the Operator-Licensee Community (OL Community).



The **Partner Program Management Team** is (obviously) the staff responsible for managing the Partner Program; it oversees and facilitates the distribution of Kvantor.Tech's software product licenses and creates the rules that govern that distribution. The Partner Program Management Team also controls membership of the **KLD** and **OL Communities**. The Partner Program Management Team engages with these communities in order to improve the Partner Program whenever possible.

The major documents which govern the Partner Program are the **License Dealer Authorization Requirements Agreement (LDARA)**, and the **Operator-Licensee Authorization Requirements Agreements (OLARA)**.

The LDARA establishes the guidelines, procedures, and rules for registering oneself, achieving, and maintaining authorization to sell Kvantor.Tech's software product licenses. However, the OLARA details the guidelines, rights, procedures, and rules for being an Operator-Licensee of Kvantor's software products.

The **KLD Community** is comprised of all **KVANTOR Token-Holders** (Right-Holders) who have adhered to the **License Dealer Authorization Requirements Agreement** of the **Partner Program** (Right-Dealer). The requirements for a Right-Holder to claim their authorization are undemanding.

As previously stated, Right-Dealers have the conditional right to sell Licenses, but they may also appoint individuals to sell licenses for them under the condition that these individuals adhere to the License Dealer Authorization Requirements specific to Appointed Dealers (App-Dealers).

These App-Dealers also form part of the KLD Community, but their membership is conditional to both the Partner Program Management Team and the Right-Holder to whom they are beholden. An App-Dealer may be expelled from the program by the Partner Program Management Team for failure to adhere to the stipulated requirements or by the discontinuation of their status by the Right-Dealer under whom they work. The exchange relationship between the Right-Holder and the App-Dealer is determined by the two parties themselves, beyond what is explicitly required by the Partner Program.

The KLD Community also receives technical support and customer service from the Partner Program Management Team. Additionally, the Partner Program Management Team engages with the KLD Community to ascertain how they might improve their product to both facilitate sales and the End-User experience.

The **OL Community** is comprised of all those who have purchased a License from a member of the KLD Community and are currently operating that License. These individuals are called **Operator-Licensees**, and they must adhere to the **Operator-Licensee Authorization Requirements Agreement (OLARA)**. **Operator-Licensees** must adhere to the stipulations specific to the type of License they hold in order to maintain authorization for use of their software. The requirements for an **Operator-Licensee** to maintain their authorization through the OLARA are undemanding.

At times, Operator-Licensees have specific needs. Prior to sale, their specific needs should be addressed by their Dealer, but should the situation exceed the Dealer's range of capabilities or knowledge, the Dealer may escalate the concern to the Partner Program Management Team.

After a License has been sold and the Operator-Licensee has been authorized, the specific needs of individual Operator-Licensees will be addressed by the Partner Program Management Team.

The **Partner Program Management Team** engages regularly with the **Operator-Licensee Community** to ascertain how they might improve their product, both to facilitate functionality and the End-User experience.

## 5.7. The Kvantor Platform

### The Kvantor Platform as Proprietary Software

The Kvantor Platform is the centerpiece around which all other aspects of the Kvantor Project revolve; without the Kvantor Platform, there would not be Kvantor-anything.

The Kvantor Platform's scope is vast and its capabilities are varied. Thus, as with numerous disruptive scalable web-based IT projects, it is hard to situate the Kvantor Platform within a singular category of IT distribution. Therefore, for brevity's sake, the Kvantor Platform should be considered as a proprietary software developed, owned, and administered solely by Kvantor.Tech LTD, Republic of Cyprus.

However, in realistic terms, the Kvantor Platform exceeds the scale, level of accessibility, and functions of what is usually considered software. The Kvantor Platform has a front-end website accessible at ([www.Kvantor.com](http://www.Kvantor.com)), which is intended to provide scalable services to the mass market publicly.

Additionally, the Kvantor Platform has private access channels and proprietary web portals that fulfill the front-end and back-end needs specific to Operator-Licensees (such as banks, financial institutions, among others). The Kvantor Platform is housed on a web-accessible server (under Apache 2.0 license) in order to maximize access to its functions and services to the broader market of the internet.

### The Kvantor Platform's Disruptive Capabilities

The Kvantor Platform has a number of financial services designed to meet the needs of the general public with only minimal registration requirements.

Primarily, this innovation is a blockchain-based exchange called the **Kvantor Exchange**, which facilitates the unhindered trade of crypto-currencies, fiat currencies, and commodity-derivatives.

This exchange is strengthened by the **Kvantor Smart Contracts System**, which allows for complex agreements involving any number of monetary devices.

The **Kvantor Smart Contracts System** is bolstered by the **Kvantor Commercial Arbitration System**, which allows for disputes in contracts to be mediated using all interaction history on the platform and the oversight of an impartial third-party.

At the next level, the blockchain technology that powers these notable innovations is applied towards an **Interbank Transfer Module**. This module allows participating banking institutions to facilitate financial transactions directly with one another, in any currency agreed between the two.

The **Interbank Transfer Module** provides an alternative to traditional wire transfers that are hindered by the SWIFT protocol. The **Interbank Transfer Module** provides a faster, cheaper,

politically stable, and less document-ridden procedure for transferring money between bank accounts and parties. However, this service is limited to participating banks and their banking customers who are integrated into the platform.

Proprietary web-portals and services can also be hosted on the Kvantor Platform. These web-portals can provide identity authentication, information security as well as integration with the financial functions of Operator-Licensee banks and financial institutions.

As can be observed, the Kvantor Platform's functionality exceeds that of what is traditionally considered to be 'software'. Instead, depending on the perspective of the End-User, the Kvantor Platform could be considered to be a multi-sided platform, FinTech web application(s), software-as-a-service, and even blockchain-as-a-service. It all just depends on who you ask and how they are using this amazing platform.

### **5.7.3 The Kvantor Platform's Technology**

The Kvantor Platform utilizes the Hyperledger Fabric Platform as its blockchain framework. The Kvantor Blockchain operates under unified rules, established by Kvantor.Tech. The blockchain is administered by Kvantor.Tech Management (Administration), and the Kvantor.Tech BOC (Blockchain Operations Center).

The Kvantor Platform is a complex software, comprised of the following elements:

1. Distributed Registry
2. Management and Monitoring Services
  - a. Identity and Authentication Management
  - b. Information Security Monitoring
  - c. Technical Accessibility Monitoring
3. License Management Service
4. Service of Commercial Arbitration

The Kvantor Platform differentiates itself from the Hyperledger Fabric in the following ways:

1. It has its own consensus algorithm, optimized for the Kvantor Blockchain.
2. Built-in support for countless fiat currencies and a versatile accounting unit called the Kvant.
3. Built-in support for national cryptography of Kvantor Blockchain members.
4. Integrated support for the licensing protocol (decentralized license register).

## 5.8. Software Products & License Types

Within the framework of this project, Kvantor.Tech brings forth the Kvantor Platform, and three complementary anchor software products.

### The Three Anchor Software Products

1. **Kvantor.Node:** This is the Kvantor Blockchain node distribution package. The Kvantor.Node package allows clients to commence participation on the network. This package includes management tools and essential integration interfaces for the End-Operator. In order to commence operations, the End-Operator must install the distribution kit to their relevant infrastructure, properly configure it (technical support available), and then connect to the blockchain.
2. **Kvantor.Bank:** This software distribution is a two-sided platform, which provides banks with the complete functionality necessary to implement the banking and financial services within the Kvantor Platform. It also provides a customizable interface that allows banking End-Users usage access to proprietary banking services specific to their participating bank, facilitated through Kvantor.
3. **Kvantor.Market:** This is the marketplace platform in which access is facilitated through an application portal downloadable to both mobile and desktop. The marketplace provides the opportunity to deploy a variety of IT-based services to the benefit of End-Users and End-Operators. These services take the form of downloadable apps and widgets that enhance the functionality of either Kvantor's software products or the KVANTOR Platform itself. These apps and widgets may either be paid or unpaid. The Kvantor.Market provides the opportunity for third-party developers to create and sell their own apps and widgets through the **Kvantor Application Developer Program (KAD Program)**.

### Software Product License Models

There are four types of licensing models available for Kvantor.Tech's software products.

1. License with limited functionality (Free);
2. License with a limitation on the number of devices;
3. License with a limitation on the number of consumers;
4. License with a limitation on the volume of transactions.

Kvantor.Tech may develop additional models, combine existing models, or create individualized fee plans in order to provide licensing arrangements that suit the varied needs of different customers.

Dealers that need a custom license should contact the Partner Program Management Team.

#### 1. Free License with Limited Functionality.

The License grants access to the Kvantor Platform at no charge but sets End-Operator restrictions on the system's functionality. For example, the limit is 10 transactions per day for Kvantor.Node.

**2. License with a Limitation on the Number of Devices.**

The License that allows the Operator-Licensee to use the platform on a specific number of devices. Generally, this license functions in the sense of ‘one license – one device.’

**3. License with a Limitation on the Number of Consumers.**

This will be the most frequently used License with the Kvantor.Bank service. The Operator-Licensee bank acquires the license to service a certain number of customers and the price is pro-rated accordingly.

**4. License with a Limitation on the Volume of Transactions.**

The License that provides the Operator-Licensee with a certain volume of transactions, which is pro-rated based on their number of instances and/or cost.

Licenses are distributed by authorized dealers pursuant to the rules of the Partner Program as defined in Section 5.6.

## **5.9. Kvantor Application Developer Program**

### **Earn with us by making great apps!**

The **Kvantor.Market** provides the opportunity to sell your applications to Kvantor End-Users and End-Operators. As the Kvantor Platform evolves through development, distribution, and usage... new needs and scenarios will arise.

Thus, the opportunity to develop applications that resolve untapped needs, address new scenarios, and accommodate niche groups will provide a profitable venue for third-party developers.

To this end, we have created a framework to support application development so that developers can rapidly utilize the platform’s interfaces and protocols in order to implement, distribute, and monetize their applications.

End-Users and End-Operators will be able to integrate applications of their choosing that provide the solutions they desire via the Kvantor.Market.

Partner Application Developers will be able to achieve merchant functionality in order to market their applications to their target audience. Applications can be delivered as either open-source or closed-source. However, an application may only be included in the network after being successfully audited by the **Kvantor Application Developer Program**.

Third-party developers interested in developing applications for the Kvantor.Market must coordinate with the **Kvantor Application Developer Program (KAD Program)** in order to become a KAD-Partner and profit from our growing marketplace.

## 5.10. Buy a Token! Join in on our Token Sale Periods!

### Token Distribution and Sales

Tokens will be issued in three rounds of Token Sales.

Each round will have a 'discount' associated with it, which is targeted at rewarding those who become involved at an early stage.

Token distribution will be apportioned among the following parties;

- **15%** - Founders, team, initial benefactors.
- **5%** - Partners of the project.
- **80%** - Token Purchasers in the first 3 stages of the Kvantor ITO Project.
  - **60% of issued tokens are being implemented of three rounds of sales;**
  - **The remaining 20%** of issued tokens are reserved for subsequent sale (the possibility of exchange trading or selling to a strategic beneficiary will be considered).

### Target Capitalization

Kvantor is engaged in funding efforts in order to secure sufficient capitalization to launch and develop this project.

Soft Capitalization is the minimum amount we need to progress, while Hard Capitalization is the ideal amount we need to comfortably fulfill all of our funding needs.

**Soft Cap:** The Soft Cap of our project is 4 million USD. The Company is seeking to raise investment funding from venture capitalists and individual investors, alongside ITO activities.

**Hard Cap:** This is equivalent to 45 million USD. According to our current business plan, after factoring in the costs of system development, marketing, promotion, and more, this sum should be sufficient to launch the project and recoup any borrowed funds within the allotted time period.

### The three Rounds of Sales

#### 1st Round of Sales

To be held from April 26th, 2018 to May 25th, 2018.

**20%** of all KVANTORs are sold.

Within this phase, the tokens are sold under a private pre-order (Private Token Sale).

Tokens can be purchased by sending an e-mail to [ceo@kvantor.com](mailto:ceo@kvantor.com).

A 40% discount on the nominal value of the token is provided in the 1st round of sales.

#### 2nd Round of Sales

To be held from June 25th, 2018 to July 24th, 2018.

A 20% discount on the nominal value of the token is provided in the 2nd round of sales.

#### 3rd Round of Sales

To be held from August 27th, 2018 to October 10th, 2018.

A 20% discount on the nominal value of the token is provided in the 3rd round of sales.

## Volume discounts

Discounts are provided in case of high volume purchase:

- 5,000 - 24,999 KVT (25% of token nominal value)
- 25,000 - 49,999 KVT (27% of token nominal value)
- 50,000 - 249,999 KVT (30% of token nominal value)
- 250,000 - 499,999 KVT (35% of token nominal value)
- >500,000 KVT (40% of token nominal value)

Minimal purchase package is 100 tokens.

# 6. Technologies

## 6.1. Platform Development

The underlying technology platform is HyperLedger Fabric, developed by the Hyperledger consortium under the aegis of the Linux Foundation.

Its key advantages:

- Seamless integration with EDS infrastructure of the most countries where the KVANTOR platform will be used;
- Compliance with the requirements of local authorities providing certification for the applied software<sup>8</sup>;
- Technological compatibility with HyperLedger ecosystem:
  - Reduction of costs for development of applicable solutions;
  - Opportunity of fast integration with abroad networks for provision of transborder operations;
  - widespread in China and South Eastern Asia countries.
- Scalability;
- Speed, throughput — thousands of transactions per minute;
- Safety and division of accessibility of data;
- Support of various programming languages;
- Reduction of losses for linking of previously developed services and informational systems.

**Like any other blockchain platform, the HyperLedger Fabric provides:**

- Trust of market participants by means of consensus mechanism;
- Absolute transparency of transaction chains in case of necessity;
- Fail-safety by means of distributed architecture;
- Transfer of resource-intensive services to the clients' side with no data synchronization problems — ideal ESB;
- Implementation of new business models;
- Reduction of losses and acceleration of transactions including document flow.

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<sup>8</sup> FSB and FSTEC in Russia.

**Unlike public blockchain platforms e.g. Bitcoin and Ethereum, HyperLedger allows:**

- Eliminating the insufficient performance and operation speed problem;
- Provide confidentiality of data and divide participants' access levels by industry and/or corporate principle;
- Provide mandatory identification of participants avoiding cryptoanarchy and risks associated with money laundering and terrorism financing;
- Avoid necessity of mining for confirmation of transactions.

Within the framework of the KVANTOR platform creation, a specialized version is made on the basis of the HyperLedger Fabric that uses the algorithm of consensus optimized for the KVANTOR blockchain to confirm a transaction. The algorithm is based on the traditional HyperLedger Fabric Proof of Authority algorithm.

## **6.2. ITO Platform and Web-sites Protection**

Websites of the KVANTOR project and platform will be protected from all kinds of modern attacks (DDoS, brute-force, spam, fishing, virus attacks, etc.) and will be checked for the availability of vulnerabilities.

We'll consider all positive and negative experience in the spheres of ITO and protection of modern distributed Internet platforms accumulated at this moment.

Before launch of the KVANTOR platform operational mode, we will positively audit the platform's security, as well as means and methods of its development and support by efforts of one of the leading internationally acclaimed companies with confirmed professional reputation.

Before full-scale audit of the platform's security, we don't reveal its source code to the third parties.

After launch of the KVANTOR platform, we'll provide access to its source code to the clients of the project, as well as to promotion and development partners on the basis of special agreements.

## **6.3. Smart Contract Protection**

While developing smart contracts, we intend to follow the advanced methods defined by ConsenSys to the extent of smart contracts and recommendations for the provision of security (<https://github.com/ConsenSys/smart-contract-best-practices>).

## 7. Project status

- The platform's architecture and service model have been elaborated.
- The project business plan has been developed.
- The «Anchor» beneficiary has been engaged.
- Prospective pool of primary beneficiaries is determined and first round of negotiations with them has been arranged.
- Official letters of interest from large clients concerning major functional blocks of the KVANTOR platform have been received.
- The high-professional project team has been established.
- Legal entities have been registered (in Seychelles, Cyprus, Russia) for implementation of effective, flexible, profitable and safe for beneficiaries scheme of assets raising.
- Development of the KVANTOR platform is started.
- The second version of the cryptography module is developed using certified Russian systems of cryptographic information protection.
- A framework for rapid development and deployment of services is being developed.
- Prepared MVP version

## 8. Road Map

2018

- |                    |   |
|--------------------|---|
| <b>I quarter</b>   | • the project is initiated  |
| <b>II quarter</b>  | • top and middle management hired, base of the development and sales team formed  |
| <b>III quarter</b> | • formation of the team completed<br>• key technological partners determined<br>• technological and methodological basis of development of the platform finalized |
| <b>IV quarter</b>  | • major regional promotion partners determined<br>• beta of Interbank transfers function released   |

2019

- |                    |   |
|--------------------|---|
| <b>I quarter</b>   | • commercial version of Interbank transfers function released<br>• agreements with regional promotion partners executed<br>• support structure of developed services formed   |
| <b>II quarter</b>  | • first contracts for provision of interbank transfers service signed   |
| <b>III quarter</b> | • beta of Banking services function released  |
| <b>IV quarter</b>  | • regional «anchor clients» serving as basis of development of the platform and generation of income determined<br>• commercial version of Banking services function released |

2020

- |                    |   |
|--------------------|---|
| <b>I quarter</b>   | • first contracts for provision of banking services signed<br>• The Client Club for clients' feedback and strategic planning of development of the platform established   |
| <b>II quarter</b>  | • beta of Exchange trading services function released   |
| <b>III quarter</b> | • commercial version of Exchange trading services function released(the product version will be released when the amount of funds raised reaches 20 million USD)<br>• first contracts for provision of exchange trading services signed |

## 9. The Project Team



**Arsen Bakhshiyani,**  
CFO

Ph.D., assistant professor, more than 10 years' experience in the banking/financial sector.  
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**Stas Sorokin,**  
CTO

More than 13 years of experience in the role of architect and lead developer.  
[www.linkedin.com/in/stassorokin](http://www.linkedin.com/in/stassorokin)



**Mikhail Chekanov,**  
Product development

Over 17 years in as programmer, marketing and product management.  
[www.linkedin.com/in/chekanov](http://www.linkedin.com/in/chekanov)



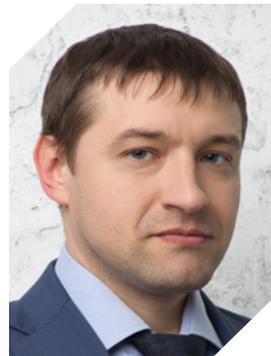
**Alexey Losev,**  
CEO

Over 15 years of telecommunications experience: Ericsson AB, OJSC Vypelkom. Owner of a telecommunications business since 2008.  
[www.linkedin.com/in/alex-losev](http://www.linkedin.com/in/alex-losev)



**Kirsten Roy-Reid,**  
Compliance executive director

20 years experience in large Banking institutions, more recently 14 years at JP Morgan. Kirsten has experience in risk & control functions across multiple financial products.  
<https://www.linkedin.com/in/kirsten-roy-reid-09413a5/>



**Valentin Esipov,**  
Legal

More than 12 years of work experience in the field of government relations.  
[www.linkedin.com/in/vesip](http://www.linkedin.com/in/vesip)



**Artem Timonin,**  
CMO

A marketing specialist with 10+ years of experience forming, executing, and managing marketing strategies and assets.  
[www.linkedin.com/in/artyomtimonin/](http://www.linkedin.com/in/artyomtimonin/)



**Alexander Vasilyev,**  
Business Development

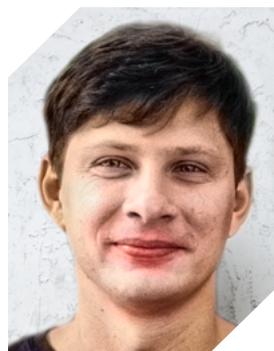
International projects: from writing technical tasks for developers to negotiations with partners and contractors.  
<https://www.linkedin.com/in/al-vasilyev>



**Elena Kartseva,**  
Business Development  
(CIS region)

In the banking sector more than 10 years. Experience in opening additional offices and bringing them to payback, operational management and sales.

<https://www.linkedin.com/in/kartsevaey>



**Иван Анисимов,**  
Business Development  
(EMEA region)

10+ years in sales, more than 5 years of complex software sales.

[www.linkedin.com/in/anisiiva](http://www.linkedin.com/in/anisiiva)



**Nikita Zuev,**  
Financial Analyst

More than 6 years of experience in logistics & finance.

[www.linkedin.com/in/nikita-zuev](http://www.linkedin.com/in/nikita-zuev)



**Boris Voinov,**  
Project manager

More than 10 years of project management and creating solutions in IT, stock market, telematics and crypto-markets. Algorithms and trade robots C# and PHP developer.

<https://www.linkedin.com/in/boris-voinov-49291365>



**Pavel Shalaginov**  
IT Engineer

Over 16 years of experience in implementing, configuring, and support Microsoft solutions, Forefront TMG, SAN, NAS, DAS, Virtualization (VMware, Hyper-V) etc.

<https://www.linkedin.com/in/shalaginov>



**Tatyana Gudyma,**  
Front-end developer

Front-end developer with 7+ years of experience. Tatyana's focus is on client part of web-applications.

<https://www.linkedin.com/in/tatyana-gudyma>



**Stanislav Drozdov,**  
IT Support

18 years of experience in IT. Experience in implementing, configuring, and supporting IT infrastructure.

<https://www.linkedin.com/in/mendorrussia>



**Kseniia Fedosova,**  
Project Administrator

Linguistics/translation degree from SSU, (English, German). English language expert.

<https://www.linkedin.com/in/fedosova-kseniia>



**Roman Zotov,**  
Business analyst

More than 12 years experience as a system and business analyst in software development and implementation projects.  
<https://www.linkedin.com/in/roman-zotov-112a06159>



**Alexandr Bishnev,**  
Business Development  
(Eastern Europe)

Specialist with 12 years experience in marketing management  
<https://www.linkedin.com/in/dev-vladimir-stepanov>



**Vitaliy Levashov,**  
Back-end developer

Vast experience in developing server applications and high-loaded scalable services.



**Vladimir Stepanov,**  
Lead developer

More than 6 years experience in developing web applications, back-end, mobile services.  
[www.linkedin.com/in/ABishnev](http://www.linkedin.com/in/ABishnev)



**Maxim Savichev,**  
QA engineer

Experience in testing and supporting web-projects for more than 5 years.  
<https://www.linkedin.com/in/maxim-savichev>



**Koutaiba Daboul,**  
Business Development  
(UAE)

Experience in top executive level negotiation. Successful business communications and international relations background. Native speaker of several foreign languages.  
<https://www.linkedin.com/in/koutaiba-s-daboul-36bb8b57>

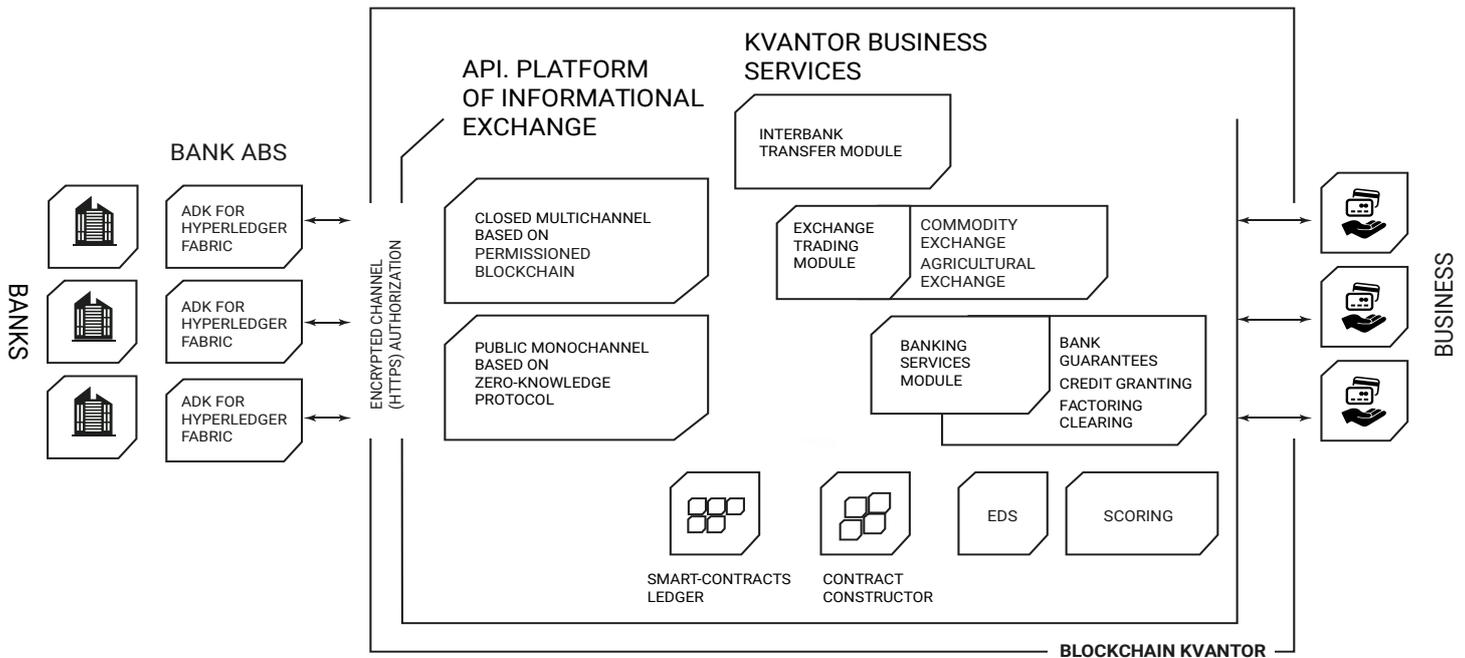


**Murat Kurbanov,**  
Product Designer

Murat has more than 15 years' experience working in advertising agencies, publishers and printers, newspapers and magazines and developing interfaces for mobile applications.  
<https://www.linkedin.com/in/murat-kurbanov>

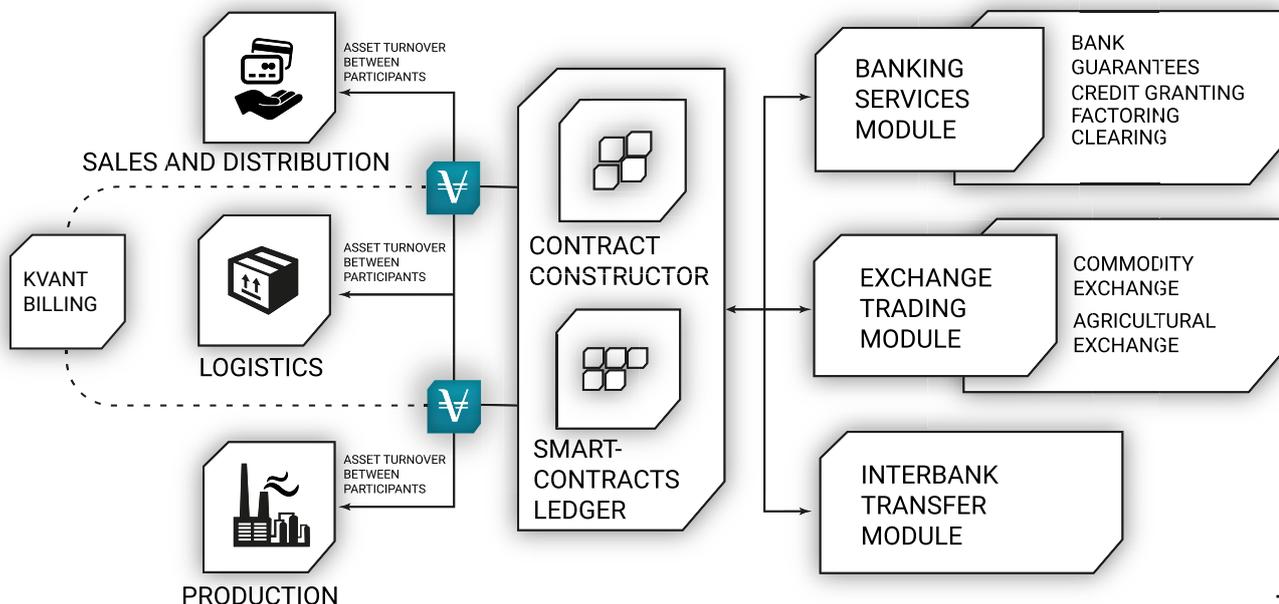
# Annex 1. The architecture project details of the KVANTOR Platform

## IT services groups

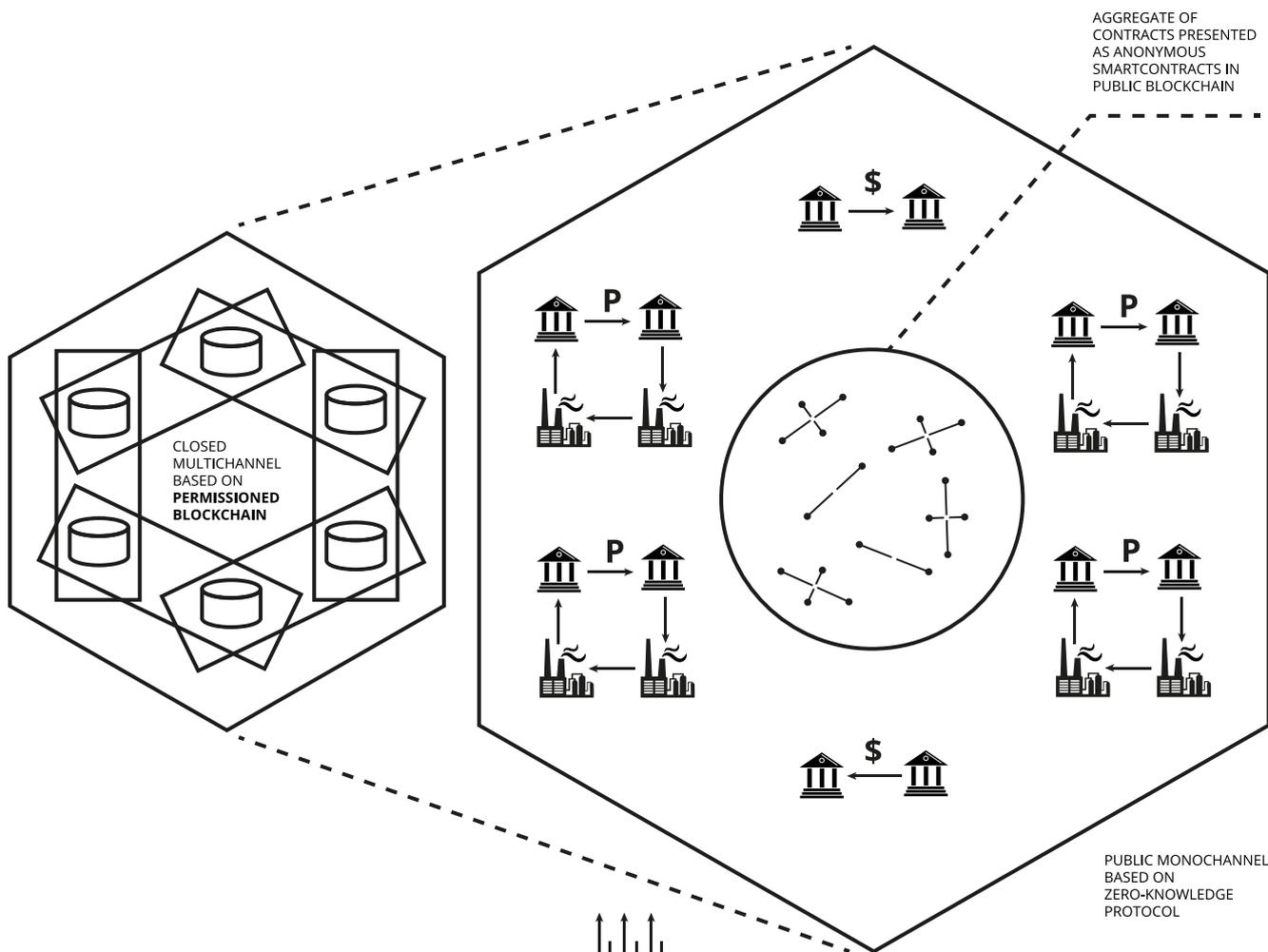


## KVANTOR Business Services block functioning scheme

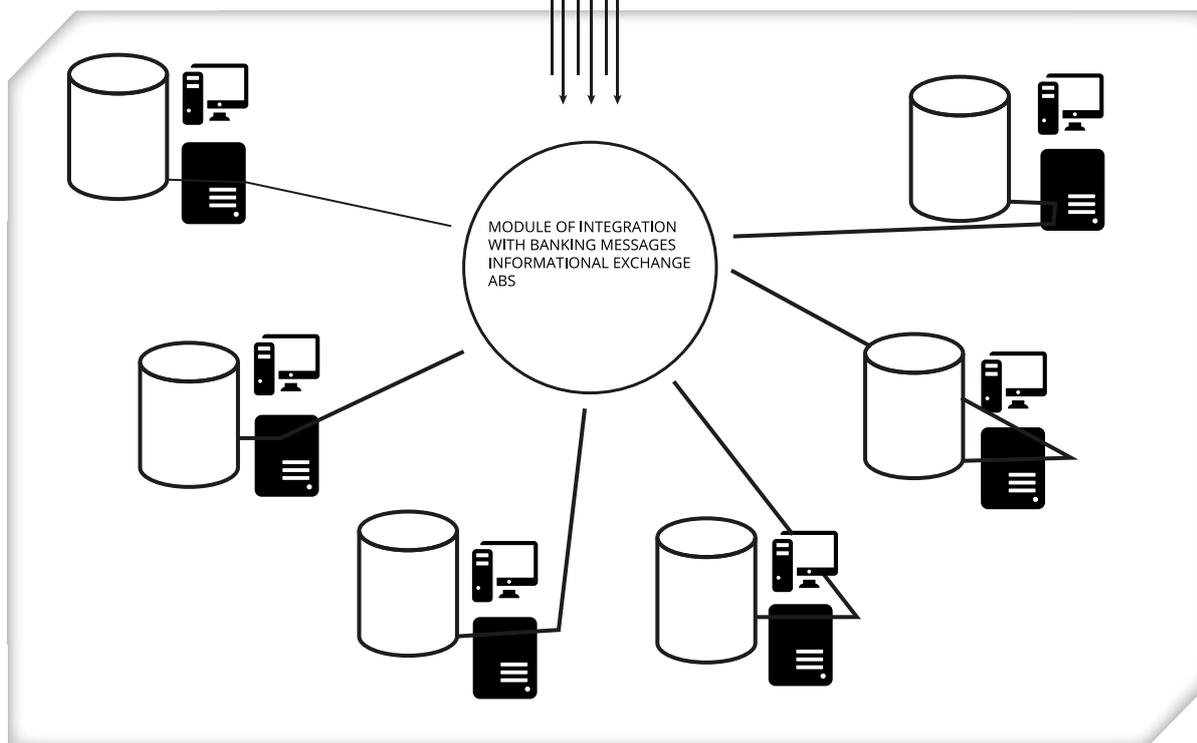
KVANTOR PROJECT REVENUES: COMMISSIONS



# Scheme of informational exchange



## ABS OF BANKS



Informational exchange between participants is performed via blockchain. Two layers are extracted in the blockchain:

- **Protected layers** consisting of many p2p blockchain channels between pairs of KVANTOR participants isolated from each other. Each channel stores confidential commercial information on obligations between two particular participants.
- **Public layer** of public blockchain channel where all participants take part. Public channel contains all transactions of the system as smart contracts storing commercial information compared with commercial information from the protected layer anonymized using ZK-protocol (zero-knowledge protocol\*).

\* Zero-knowledge protocol is the technology according to which data is stored in publicly accessible sources. ZK-protocol permits to guarantee the stability and authenticity of data in confidential storage.

The identification of all participants is generated on the basis of MSP and PKI. Certificates x.509, that are commonly used in enterprise, are also used as PKI.