HOW CAN BLOCKCHAIN CHANGE THE BUSINESS MODEL

The most popular application of the blockchain is the technology work using Bitcoin currency. It provides untouchable record of all transactions with cryptocurrency protected at the highest level of cryptographic security. In the earlier stages of development mutually distributed registries were considered unsafe and complex.

Nevertheless, some of the features of this particular type of blockchain are attractive for financial institutions. It is decentralized (has no single point of failure), safe (cryptographic techniques are used in each transaction), keeps story that can not be changed (after a single registry entries are suitable for read-only), effective (data exchange takes place quickly and easily) and transparent (all actions are documented).

In simple terms, the mutual distribution of reserves is nothing more than a method of digital data recording and it can be used for any kind of things, registration and changes which you want to record and confirm (for example, transactions, agreements, contracts, property rights, etc.)

According to the SWIFT Institute working paper, thanks to the reliability and relative simplicity, blockchain would be interesting to use when making settlements with securities on the domestic markets, as in the future it may allow to reduce both costs and risks.

And according to the report of the law firm White and Case, such technology can be used to improve and develop the exchange of currencies, supply chain management, transactions, money transfers, transfers between individuals, micropayments, registration of assets, maintenance of correspondent accounts and control reporting (on the principle of "know your customer" and anti-money laundering) speed of execution.

Mutually distributed registries allow the use of smart contracts (computer protocols that facilitate, support or enhance the effect of the contract or
argeement) in accordance with the rules of conducting business. As these rules can be changed for each contract, committing the transaction can be simplified by eliminating intermediaries and counterparties. This means that transactions can be executed much faster, because the role of intermediaries technology is performed by.

All this interest in the financial services industry to blockchain has one condition: companies need a similar technology with the desired advantages, but not the one that is running Bitcoin. This is because some of its current functions will not work in the context of financial services.

For example, initially blockchain, used with Bitcoin, was free from restrictions accessible to everyone and publicly approved and the integrity of the system was dependent on the users moved by financial incentives.

For all its effectiveness, this approach is unlikely to be suitable for use by financial institutions, as regulators will not allow anonymous users to ensure the integrity of the system. Financial companies would be more satisfied with blockchain with restrictions where you can assign control agents, that will validate and, if necessary, cancel a transaction.

Also, it is not clear to what extent it is possible to adapt the reliability and ease of Bitcoin-blockchain, for financial institutions use how to modify mutually distributed registries and ensure they can be used to support financial services in a wider context. Thus, it is necessary to undertake a lot more research and experimentation.

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OPPORTUNITIES AND PROSPECTS OF AUTOMATION SYSTEMS

Opportunities and prospects of automation systems have realized for a long time. Their development and application received support at the highest level, and the history of their use has more than 30 years. There are software development and has accumulated considerable experience of their application. Chronologically, the first area of CAD implementation, especially in sectors such as aeronautics, where you need to spend a lot of calculations even before the first line will be drawn, were engineering calculations. In 1972, the theoretical foundations of design as a branch of the mathematical discipline called operations research have been developed. It has also developed software for diverse evaluations of the future project: its aerodynamic, aircraft performance,