Use Cases of Blockchain in Financial Industry

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Genesis Convergence is Subject Matter Expert in Blockchain and Cryptocurrency.

We offer Crypto Development/Consulting services covering solution architecture refinement, customization, integration, transformation, visualization, and analytics to uncover insights hidden within data and enhance data exploration.

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OBJECTIVE

The banking industry has been around for centuries helping as a facilitator for a variety of financial and commercial activities, including trading, loaning and borrowing, transaction processing and payment, underwriting, and so on. However, this has led to inactivity, with the sector becoming over time slow to adapt to the quickly changing realities of the digital age.

There are many fintech solutions available today, making it very confusing for financial service providers to decide which solution will suit them best. Applying new technologies can help modernize the sector.

BLOCKCHAIN – THE MOST PROMISING TECHNOLOGY

In simple terms, blockchain is a peer-to-peer distributed ledger that stores information and keeps track of transactions.

- Each and every member of the blockchain community has its own copy of the information.
- The information is recorded subsequently into units called blocks and protected by strong cryptography, creating a chain of data.
- Changes to blocks are not permitted by the blockchain system architecture, so every action and event could be traced to its origins.
- A blockchain could store data on agreements between the parties, their credentials, transactions, and any other information presented in a digital form.
- Since this information is distributed and highly secured, any attempt at fraudulent activity can be seen by the members of the blockchain community.
- This creates trust and transparency for any type of ecosystem that the blockchain is integrated into.

Breaking into the Blockchain space

Blockchain is a platform that ensures the integrity of the information stored and maintains interactions between the members of the ecosystem. Here's a high-level overview of the way it works:

- Each member maintains their own blockchain node with the full history of all the events and data appended to the network, including credentials, identities, certificates, etc.

- Every update to the network entails the creation of a new block at the end of the chain. A blockchain protocol dictates how these blocks are recorded, validated, and distributed.
- A consensus mechanism is employed to verify each created block where members of the blockchain network decide if it's valid to be added to the chain.
- Once a block is created and confirmed, it cannot be revoked. All entries on the blockchain are permanent and securely stored. This allows for members of the community to trace the full history of transactions and any other modifications in the7i blockchain.
- Smart contracts are a special type of agreement between the members of the network that have the conditions programmed into them, making sure that they are met before each party receives what was agreed upon. Smart contracts eliminate the need for third parties and middlemen to be involved in agreement resolution.
- Transactions in cryptocurrency play a very important part in the blockchain ecosystem, providing the incentive for all members of the community to make valuable contributions and participate in the development of the system as a whole.

These key pillars of blockchain technology lay the foundation for its uses throughout different industries, including in education. It has the potential to create a global environment where learning materials, publications, student credits, and transcripts are easily accessible. It can also introduce new and innovative ways for accountability, incentivization, and communication between teachers, students, and other participants.

AN INTRODUCTION TO THE FINANCIAL INDUSTRY

Financial companies provide loans for businesses, mortgages to homeowners, and insurance to consumers. If these activities are restricted, it stunts growth in both small businesses and real estate. Financial stocks are very popular investments to own within a portfolio.

BLOCKCHAIN IN FINANCE – USE CASES

The finance industry has been facing many challenges for a very long time. The incredible advancements in technology have led to solving numerous problems, but some new technologies have created new issues in the process. There are multiple fintech solutions available today, making it very confusing for financial service providers to decide which solution will suit them best. Hence, they look for an all-in-one solution that can help solve all of the major challenges being faced.

Blockchain in financial services is highly promising and can solve significant challenges faced by the industry. Let's see how. Here are the use cases of blockchain in financial industry:

Cross-Border Payments

- Since banks charge an additional cost for every transfer, transferring goods or payments across borders becomes expensive and slow. For example, if someone has to transfer money from the USA to Russia, the transfer process must go through one or more financial institutions before it reaches the receiver.
- Blockchain allows individuals to send and receive money with minimum involvement from different entities. Also, with the help of blockchain payment systems supported by blockchain networks like Stellar and Ripple, cross-border payments can be settled quickly and cost-effectively.

Lending Platforms

- Before blockchain came into existence, people required intermediaries to create trust and make a transaction happen. However, with blockchain in finance, borrowers can directly deal with the lenders on the rate of interest, installments, and duration of the transaction with the help of immutable smart contracts.
- Borrowers and lenders can negotiate terms on the smart contracts. If borrowers are not able to abide by the terms, then the smart contract adds late payment fees to the actual amount to be paid to the lender.
- Reputed banks like ING and Credit Suisse have successfully swapped high-quality EUR 25 million liquid assets with a blockchain based lending application. Blockchain can add trust to the system without the need for an intermediary, making the entire process seamless.

Credit Score

- Banks and other financial institutes require an applicant's credit score before proceeding with a loan application. One limitation of the current credit management system is the credit ratings' lack of mobility. The current credit score of a person does not remain valid in a different country. Therefore, a universal credit score is needed. The hacking incident of the credit agency "Equifax," which compromised the sensitive information of 143 million American consumers, also demonstrates the need for an innovative change to the system.
- Managing credit score using blockchain could bring transparency to the system. Blockchain allows lenders to access the immutable records of financial transactions to understand the creditworthiness of a person. Smart contracts ensure the personal information of an applicant is never compromised or revealed.

Invoice Management and Billing Solution

- Companies are adopting electronic invoicing, but they lack the standards required to execute invoicebacked financing in a streamlined manner.

- With blockchain in finance, companies can upload the invoices on the blockchain through smart contracts. Information like payment due date, amount to be paid, and the client's details can be saved on the blockchain. Once the individual pays the bill, the smart contract will update the invoice status as "paid" and will notify the companies that the client has made the payment.
- Blockchain in financial services can help to decide if the client is safe to trade with or not.

Fund Investment

- Currently, investing in funds is time-consuming and expensive. The current procedure involves manual processes using multiple databases.
- With blockchain in finance, providers can store the user's legal, personal, and public information on a blockchain. It could:
    - reduce the possibility of errors and frauds
    - bring transparency
    - make access to data easier.
- With an immutable smart contract, the fund investment companies can retrieve the user's information quickly. If a user denies sharing the data, access would not be granted. The users can also keep track of who uses the information and for what purpose.
- So, blockchain in financial services can make the fund investment process more transparent.

Government Expenses

- Governments around the world are adopting digital methods to modernize legal processes and build good relations with citizens. Advancements in technologies have made it possible to increase the transparency of public financing to make the system trustworthy.
- Imagine citizens can track how many dollars are spent on the construction of the road. If the governments start using public blockchain to store the information related to expenses spent on cities' development, the citizens' fight against corruption can be avoided.
- Hence, blockchain in financial services for the government would enhance the system's efficiency.

Political Funds

- Capturing the information related to public funds received and paid by a political party on a blockchain can offer transparency to voters. Using blockchain, voters can make better decisions about political parties.

Financial Record-Keeping

- Companies are planning to use blockchain to store the immutable records of finance-related information like:
  - financial history
  - Money on Money Multiple (MoM)
  - profits earned
  - dividend distribution
- The smart contract allows different shareholders to get access to the relevant information. For example, shareholders should be able to access confidential information while interested parties should only gain access to public information.
- Therefore, blockchain in financial services helps companies to bring transparency to the financial systems.

Stock Exchange

- The current stock market involves entities like regulators, brokers, and the stock exchange that add more cost to the system. A decentralized approach to manage the stock exchange can make the system highly efficient.
- Blockchain can eliminate the need for third-party regulators as regulations can be built on smart contracts.

Initial Public Offering (IPO)

- High fees for the bureaucracy of venture capitalists, private investment firms, and banks make the entire IPO process expensive.
- Therefore, equity markets are planning to move towards decentralization. Blockchain allows the complete range of investor-company interaction to be carried out securely without middlemen to cut down the cost.

COMPANIES PROVIDING BLOCKCHAIN SOLUTIONS FOR FINANCE

Synaps – A joint initiative by Symbiont and Ipreo, which focuses on **automating and improving the global loan syndicate market** using blockchain-based smart contracts.

Bitpay – An American payment service that allows businesses to **accept and transact with Bitcoin and Bitcoin Cash** as well as invest and exchange between cryptocurrencies and fiat currency.

Request Network – A decentralized Ethereum-based network **allowing users to perform transactions between each other**, send or request payments, issue invoices, pay and receive money for online purchases and more.

Ripple – A payment solution which represents a distributed payment settlement system built on the blockchain and a shared public ledger called XRP ledger. The system serves both private users and organizations and banks, allowing them to settle money transfers and payments faster and cheaper**.**

CONCLUSION

Blockchain in financial services can offer multiple benefits, which can help transform the finance industry. According to KPMG, blockchain can reduce errors by up to 95%, increase efficiency by 40% and reduce capital consumption by up to 75%. Blockchain in finance is an exciting concept with the potential to transform the finance industry.

Blockchain can help different financial institutions and government entities to improve trust, bring transparency and cut down costs. If you are looking out for a blockchain development company to build a blockchain-based finance solution, contact our experts and discuss your requirements.

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