Bazaars: A Peer-to-Peer Marketplace

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Abstract

A blockchain based peer-to-peer marketplace would allow buying and selling to be done directly from one party to another without going through any intermediary, whether a monopolistic e-commerce platform, financial intermediary, or institution to process payments. Key to this solution is ensuring sellers can offer their products directly to potential buyers, and that buyers get their desired product while the sellers get paid in a timely manner. I propose a solution to the removal of intermediaries using a smart contract that will hold the funds until the payment conditions are met. When conditions are met, payment is released to the seller. If the conditions are not met, then the payment is returned to the buyer.

1. Introduction

An e-commerce marketplace is a business model that allows buyers and sellers to transact online. The marketplace operator provides a platform for buyers and sellers to connect, and the marketplace operator charges a fee for each transaction that is made. This fee can be a flat fee, a percentage of the sale price, or a combination of both.

As well as the high fees, other drawbacks include fraud and lack of control over product presentation.

E-commerce marketplaces are susceptible to fraud. This is because buyers and sellers are not physically present when they make transactions. It is hard for the parties involved in a transaction to completely trust a third party with their private information and funds. It is also time-consuming to establish a trust account and regulate the funds in a centralized payment system. And centralized payment systems often charge high fees for trust account services.

Product presentation and listing position depend on the platform and additional fees to be sponsored or recommended.

I propose a new blockchain based peer-to-peer marketplace that attracts buyers and sellers. Blockchain and cryptocurrency technologies enable buyers and sellers to swap any physical, digital products, or property they own with each other, no matter their geographical location, without any intermediary control or interference.

2. InterPlanetary File System (IPFS)

IPFS is a protocol and peer-to-peer network for storing and sharing data in a distributed file system. IPFS uses content-addressing to uniquely identify each file in a global namespace connecting IPFS hosts. It can be used to replace the location-based hypermedia server protocols HTTP and HTTPS to distribute the World Wide Web.

As opposed to a centrally located server, IPFS is built around a decentralized system of user-operators who hold a portion of the overall data, creating a resilient system of file storage and sharing.

Some of the benefits of using IPFS include:

• Decentralization: IPFS is a decentralized network, which means that there is no single point of failure. If one node goes down, the network can continue to operate.

• Resilience: IPFS is a resilient network, which means that it can withstand attacks and disruptions.

- Scalability: IPFS is a scalable network, which means that it can handle a large amount of data.

- Efficiency: IPFS is an efficient network, which means that it uses less bandwidth and resources than traditional file sharing networks.

IPFS has the potential to revolutionize the way we store and share data.

I suggest the use of IPFS. The marketplace should implement this protocol for storing and sharing data in a distributed peer-to-peer model.
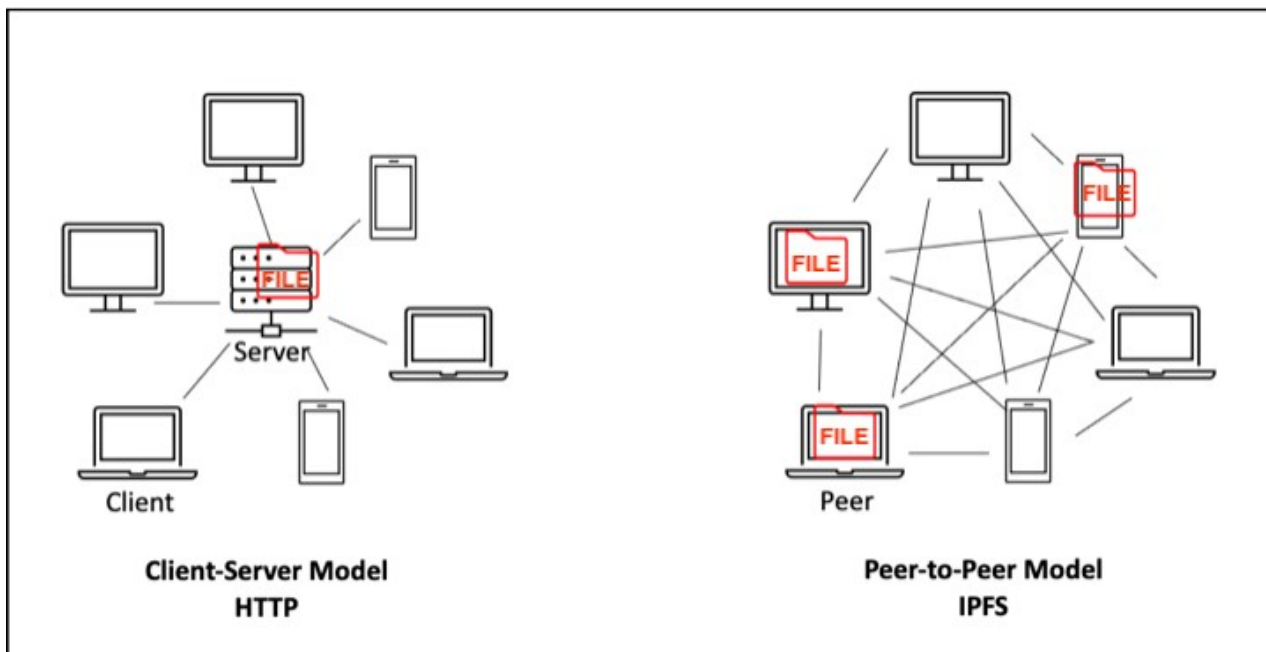
3. On-chain KYC (OCKYC)

The slow uptake of blockchain technology and cryptocurrencies can be attributed mostly to a lack of regulation in this space, therefore Governments and businesses have trouble endorsing and using it. Companies are required to comply with numerous regulations and guidelines in several different areas and without the tools to do so they face legal challenges in implementing many crypto and blockchain solutions. Similarly, governments need to be sure that new technology and markets can be made safe for the populace and aren't open to abuse by malicious actors.

OCKYC is a process of verifying a user's identity on a blockchain. This can be done by using a variety of methods, such as:

- Identity documents: Users can provide their identity documents, such as a passport or driver's license, to be verified by a trusted third party.

- Biometric data: Users can provide their biometric data, such as a fingerprint or facial scan, to be verified by a trusted third party.

- Social media profiles: Users can provide links to their social media profiles, which can be used to verify their identity.

Once a user's identity has been verified, it can be stored on the blockchain in a secure and immutable way. This information can then be used to verify the user's identity whenever they interact with a blockchain-based application or service.

There are several benefits to using OCKYC, including:

- Improved security: OCKYC can help to improve the security of blockchain-based applications and services by verifying the identity of users. This can help to prevent fraud and other malicious activity.

- Increased compliance: OCKYC can help organizations to comply with regulatory requirements, such as those related to anti-money laundering and know-your-customer (KYC).
- Reduced costs: OCKYC can help to reduce the costs of identity verification, as it can be done more efficiently and securely than traditional methods.

There are also a few challenges associated with OCKYC, including:

- Privacy: OCKYC can raise privacy concerns, as it involves storing personal data on a public blockchain.
- Scalability: OCKYC can be challenging to scale, as it requires a large amount of computing power.
- Regulation: OCKYC is still a relatively new technology, and there is limited regulatory guidance on its use.

OCKYC is a promising technology with the potential to improve the security and compliance of blockchain-based applications and services. It brings compliance for a whole host of different regulations to the blockchain and can be accessed and easily proved by anyone or any company using blockchain solutions. It also has the added benefit of improving perception of those blockchains that have it as people realise that there are baked-in regulatory compliance options.

I propose a solution that enables peer-to-peer blockchain identity verification and OCKYC compliance checks without keeping data. Through the OCKYC solution, a user's data is verified but then the user's data is deleted and never goes to a central server.
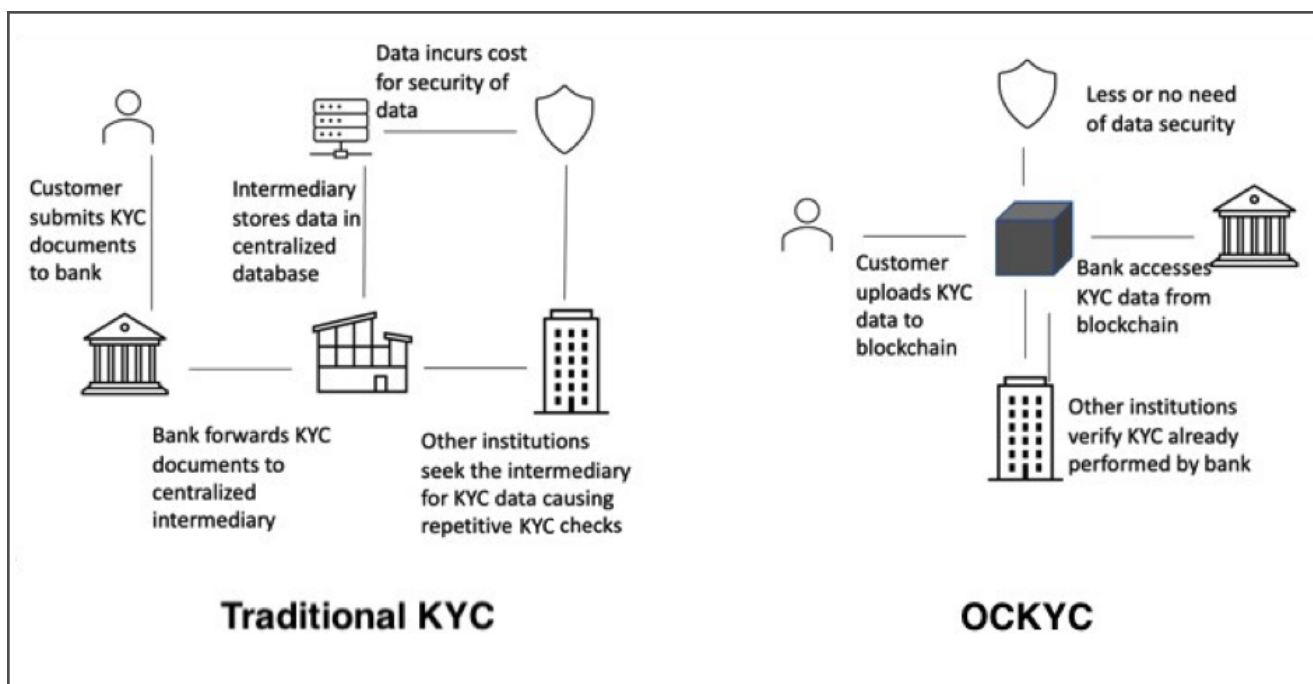
4. Smart Escrow

A smart escrow is a type of escrow service that is implemented using a smart contract. Smart contracts are self-executing contracts that are stored on a blockchain. They are written in code and can be used to automate a wide range of tasks, including escrow services.

In a smart escrow service, the buyer and seller agree to the terms of the transaction and deposit their respective funds into the smart contract. The smart contract will then hold the funds until the conditions of the transaction are met. Once the conditions are met, the smart contract will automatically release the funds to the respective parties.

There are several benefits to using a smart escrow service. First, it can help to reduce fraud and risk. Since the smart contract is stored on a blockchain, it is tamper-proof and transparent. This

means that both parties can be confident that the transaction will be executed fairly and that their funds will be protected.

Second, smart escrow services can help to save time and money. Traditional escrow services can be slow and expensive. Smart escrow services, on the other hand, can be executed quickly and at a fraction of the cost.

Finally, smart escrow services can help improve security. Traditional escrow services are often held by third-party companies. This means that the parties involved in the transaction must trust the third party to hold their funds securely. Smart escrow services, on the other hand, do not require a third party. This means that the parties involved in the transaction can be confident that their funds are secure.
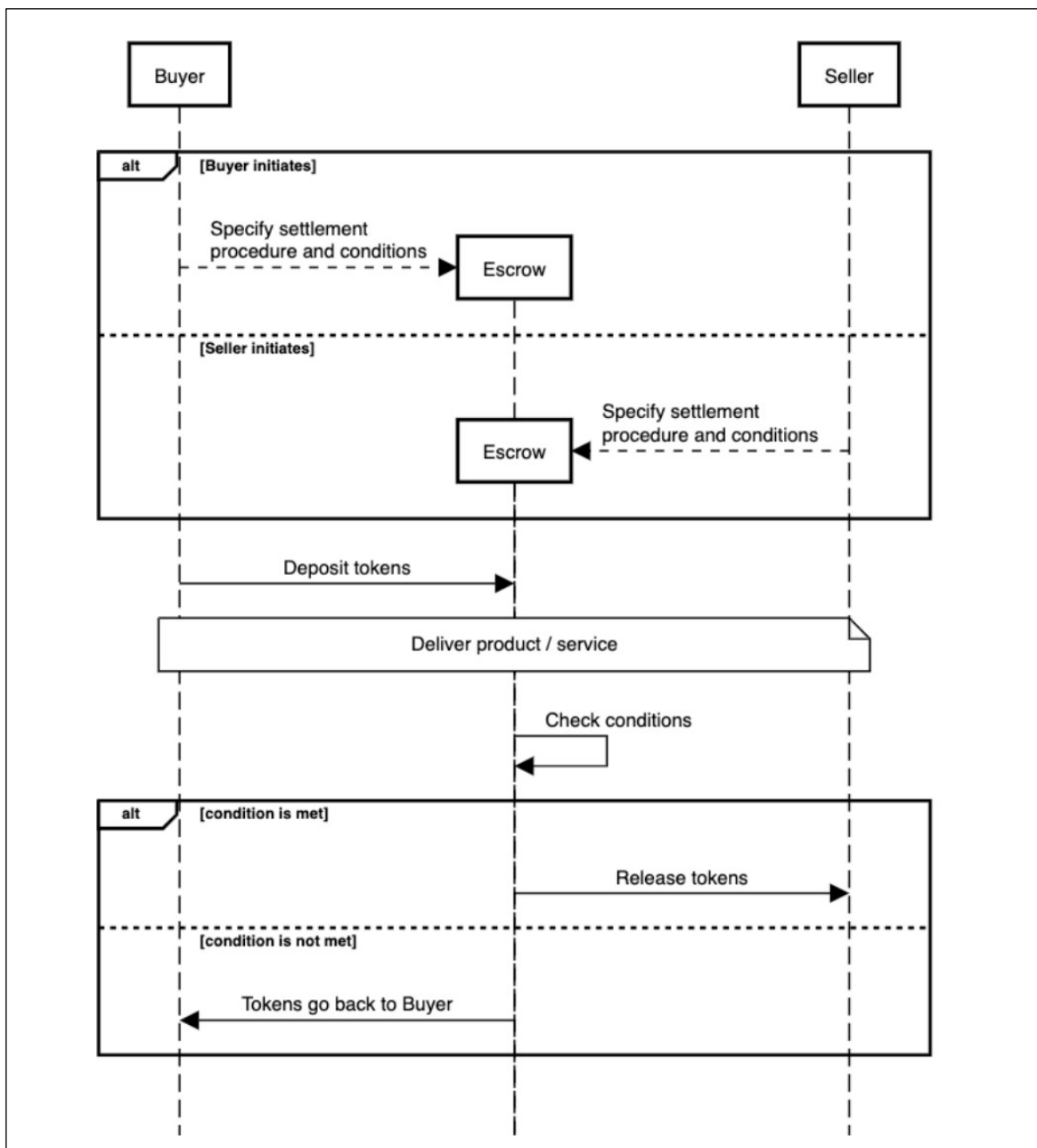
Overall, smart escrow services offer several benefits over traditional escrow services. They are faster, cheaper, more secure, and more transparent.

In my proposed solution, a smart contract plays the role of an escrow that holds the funds until the payment conditions are fulfilled. First, settlement procedure and conditions are specified as a smart contract. This smart contract could be specified and deployed by either the seller or buyer. Second, the buyer transfers the token(s) to the escrow smart contract. Third, when token release conditions are met by providing the desired product/property, the respective event is informed to the escrow smart contract. Finally, the escrow validates the pre-defined conditions and releases the tokens to the seller. If the respective event is not informed to the escrow within the stipulated time or the event indicates that the product/property was not delivered as per the agreed terms, then the tokens are sent back to the buyer.

5. Conclusion

In conclusion, I have proposed a new blockchain-based peer-to-peer marketplace that has the potential to revolutionize the way we buy and sell goods and services. The marketplace would be decentralized, meaning that there would be no central authority controlling it. This would make it more secure and efficient, as there would be no single point of failure. The marketplace would also be more transparent, as all transactions would be recorded on a public blockchain. This would make it easier for buyers and sellers to trust each other and to avoid fraud.

The marketplace would use a number of innovative technologies, including IPFS, OCKYC, and smart escrow. IPFS would be used to store and share data in a distributed way, making it more secure and efficient. OCKYC would be used to verify the identity of users, making it easier to prevent fraud. Smart escrow would be used to hold funds until the terms of a transaction are met, making it more secure and efficient.

This type of marketplace would offer a number of advantages over traditional e-commerce marketplaces, including lower fees, greater security, and more transparency.

Sources:
1.   en.wikipedia.org/wiki/InterPlanetary_File_System