

Design of Four Scenarios of Land Transaction in Blockchain Technology

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ABSTRACT

In view of the frequent occurrence of false contracts and sales in land transactions in Southeast Asia, it is urgent to establish a way of land sales based on mutual trust. Is proposed based on (a) the buyer and the seller fingerprint proof law, (b) based on the smart contract registration to pay tax, (c) cash transaction registration law, (d) based on the wisdom to distinguish successor law, smart contract is proved as an application of Blockchain using proposed solutions follow the principle of fair and open, eliminate the false, false sales contract, Decentralized, no one can change the information after the transaction, beneficial land transaction efficient and accurate, promote economic development.

Keywords: blockchain; smart contract; bitcoin

INTRODUCTION

Land managing system in in Southeast Asia, for example, like Bangladesh is so challenging and often so many occurrences are happening when selling and buying lands. Some of people are being cheated. Sometimes at the time of transactions, the matter of security comes up. Such as after getting a land, the buyer has to face illegal issue with false documents of the property. Even buyers do not get exact measurements or real owners. Again, including Bangladesh, many people of Asia are losing their land or property as they don't have proper documents. Dishonest people with unsubstantial documents is taking possession of poor or weak people. Not only this, even brothers are refusing to give fair authority to their sisters after the death of their father. Even a wife gets rejected by not getting proper property from husband's family after husband's death. So many occurrences are happening just for not having accurate details of the documents. Most of the time, documents are being changed. So firstly, the thing is needed is to ensure the integrity of data. So, if we can store all the information or documents in Blockchain [1-5], no one will be able to change the data of the documents. The Blockchain relies heavily on cryptography to achieve their data security. So, it's almost impossible to alter data. So blocks will contain all the information such as who is the real owner of the property, measurements of property,

and exact documents of the property. So, if any node wants to sell or buy or even provide his wife, children or siblings, they will not have to face any issues like cheating.

Basically, Blockchain is a distributed digital ledger of transactions which is copied and distributed across the entire network of computer systems in the Blockchain. The block data is a method of recording information that can be modified, hacked or retransmitted or unchecked. Blockchain is a system that records information in a way that makes it difficult or impossible to change, hack, or cheat the system. It is a distributed database of record of transactions, and it is affirmed and maintained by a network of computers around the world. It keeps all the copies of records verified and synchronized. In lieu of a single central authority such as a bank, all the records those are supervised by a large community and no one has control over it and none can remove or rub out transaction history. For its built-in distributed nature of structure, the information cannot be manipulated or altered too.

THE COMPOSITIONS OF BLOCKCHAIN

When a block saves new data, it is added to the Blockchain. Blockchain consists of multiple blocks tied together.

In order to add a block to the Blockchain, however, four things must happen:

(a) There must be a transaction that has to occur. An example can be Amazon purchase. After quickly clicking through multiple checkouts, we go against our better judgment and make a purchase. As we discussed, in many cases a block will group together potentially thousands of transactions, so our Amazon purchase will be packaged in the block along with other users' transaction information as well.

(b) The transaction must be substantiated. After making a purchase, our transaction has to be verified. With the other public records of information, like the Wikipedia, Securities Exchange Commission there is someone in charge of receiving new data entries. With Blockchain technology, however, that task is left up to a network of computers. When we make our purchase, that network of computers rushes to check that our transaction occurred in the way we said it did. And they confirm the details of the purchase, including the participants, time and amount.

(c) The transaction must be saved in a block. When our transaction has been verified as correct, it will get the green signal. The transaction's amount, our digital signature, and Amazon's digital signature that are all stored in a block. There the transaction will possibly join hundreds, or thousands, of others like this.

(d) The block must be given a hash. When all the transactions of a block have been verified, it must be given a unique and identifying code says a hash. The block is also given the hash of the previous block added to the Blockchain. Once it is hashed, the block can be added to the Blockchain.

FOUR SCENARIOS

To provide a good temp let for Blockchain acceptance, TCP / IP has probably reduced the way for it. TCP / IP has become inclusive, and applications of Blockchain are being built on top of digital information, communications and computing infrastructure that reduce testing costs and allow new usage cases to emerge faster.

With our framework, rulers can understand where to build their organizational abilities for Blockchain nowadays, where their employees need to adapt about Blockchain, construct company-appointed applications over the corners we have marked, and invest in Blockchain infrastructure.

However, due to the sheer complexity associated with the time horizon, barriers to acceptance, and the TCP /IP level of assurance, rulers should cordially consider the risks related in testing with the Blockchain. Obviously, beginning small is a better way to develop how to think bigger. However, the level of appointment will recline on the context of the company and the industry. Financial services companies are already on the path to adopting Blockchain. Whatever the context, Blockchain is likely to have an impact on your business.

(a) First Scenario

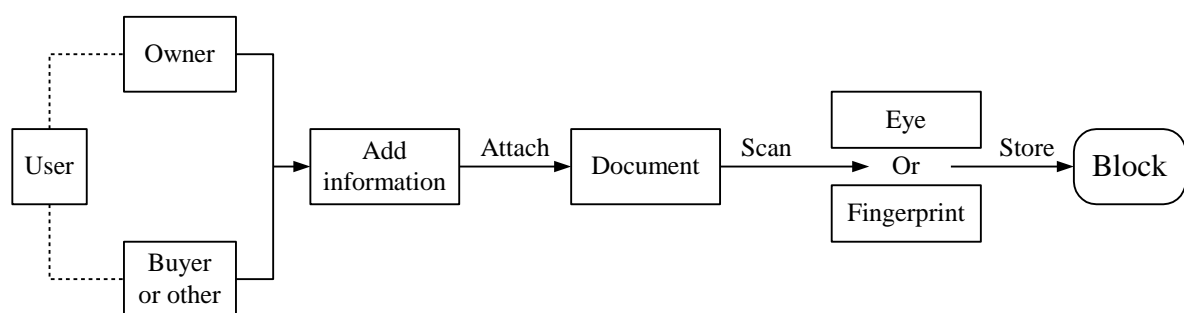


FIGURE 1: Registration

Here we will discuss our proposed model. We will describe through 4 scenarios. So, the first scenario is about registration.

Here, users can be of two types. Users can be an owner who wants to store his land's data securely or buy lands or sell lands or anyone. For that they will have to register.

For registration, he will have to submit his information, some valid documents and after that we will have to scan his eyes or give his finger print. If anyone is unable to give fingerprints or if anyone is not able to scan eyes, then they can take another option. After that, their registration will be completed and their information will be stored in the blocks of the Blockchain. Each block will contain each user's info.

(b) Second scenario

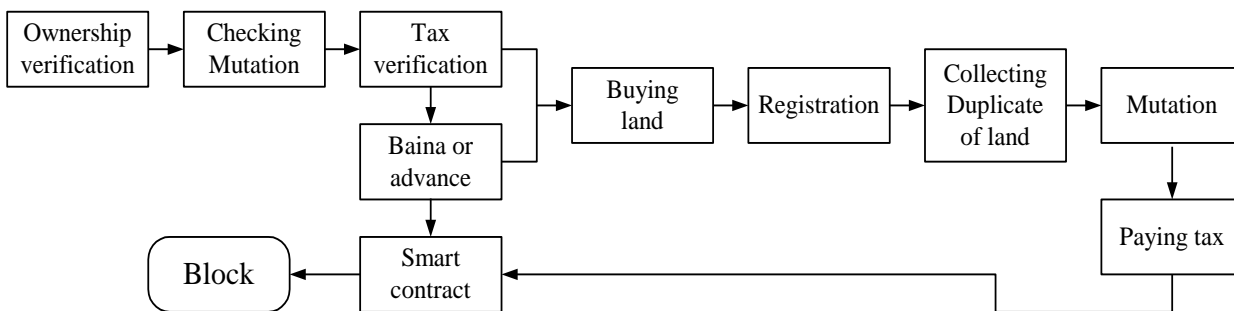


FIGURE 2: Land buying procedure

The second scenario shows that if anyone wants to buy a land in this way, then how he will proceed.

So, first of all, the user, who wants to buy the land, will have to check the ownership if the person from whom he is buying the land, is the real owner. After that he will have to check the mutation. The tax is properly given for this land. Then the buyer can buy the land in two ways like if he wants to buy the land directly without any Baina, then he can do that and the smart contract will generate a condition for Baina.so that no one can cheat actually.

After the registration is accomplished, then the new owner will have to collect a duplicate of the land so that he can perform the next stage which is mutation. After mutation he will have to pay the taxes of that land.

(c) Third scenario

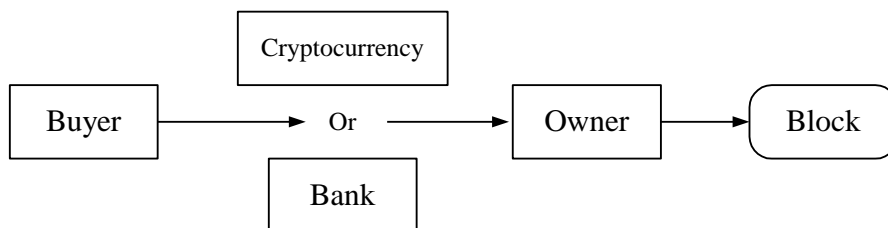


FIGURE 3: Money Transaction

When two parties (owner and buyer) will come to an agreement and fix certain amount of money, then at the time of Baina, the buyer may transect one third of money from the amount and at the time of registration or after certain period of Baina the buyer will have to pay the rest of the amount.

In the time of Baina, the smart contract will work. Users can pay using cryptocurrency (Digital money transaction) or using the bank.

(d) Fourth scenario

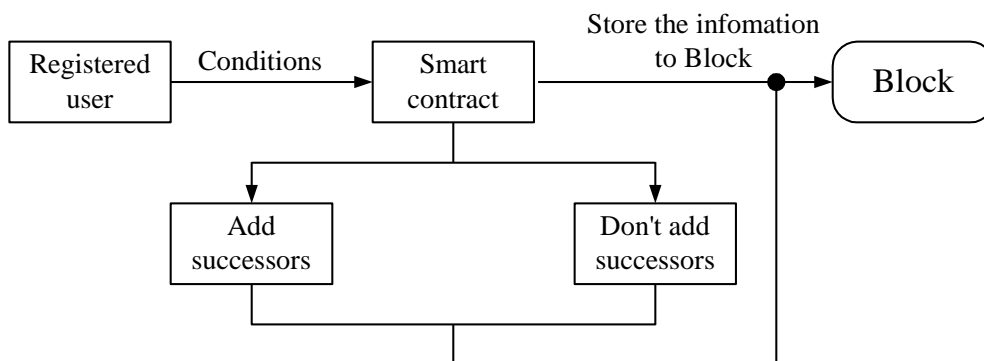


FIGURE 4: Adding Successors or not

In this scenario, it is showing that is any user while registering or later, he may include information if he wants to will anything to anyone or if he wants to specify his successors. If he does that, no one will be able to modify that data or delete that data.

ADVANTAGES OF THE SCENARIOS

(a) The Blockchain is in land management system
One of the main benefits of Blockchain technology is that it agrees to simplify the performance of an extensive array of transactions that would usually want the mediation of a third party (e.g., a protector, a bank, a securities adjustment system, broker-dealers, a trade repository, ...). In summary, Blockchain is all about decentralizing belief and enabling decentralized authentication of transactions.²⁹ Simply put, it permits to cut out the "middleman".

(c) The Blockchain-wallet is kept in all the land and user information virtually

A Blockchain wallet is a digital wallet that grant users are to depot and run their Bitcoin and Ethereum. It is a software program that usually provides prominence to purchase, encase and verify balance for the users who are entangled in the barter of Bitcoin, Ethereum or other cryptocurrencies. They must be using a Blockchain wallet of any kind. Blockchain wallets do not guard crypto-currencies like the consecutive wallet does. The plaint of all the transactions such as purchasing, buying, exchanging etc. is kept by them. Actually, all the plaint related to the currency is gathered in Blockchain mechanism.

Generally, a user can have his all transaction plaint in his Blockchain wallet. He can plaint all his previous fact also, so that he does not have to become anxious about missing out his actuality.

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