SMART CONTRACTS.

Tech Tuesdays
With Musa.

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What are Smart Contracts?

In general, legal terminology, a contract or agreement is "a meeting of minds". Smart contracts, however, are digital contracts stored on a blockchain that are automatically executed when predetermined terms and conditions are met. An overview of blockchain was given in the last issue of this newsletter. For better understanding, we encourage you to first read Part 1 of this series.

How Smart Contracts Work

Smart contracts operate based on simple "if/when...then..." instructions coded onto a blockchain. Once predefined conditions are confirmed, a network of computers executes the specified actions. These actions may encompass tasks such as disbursing funds, recording vehicle registrations, sending alerts, or generating tickets. The process followed in executing a smart contract is similar to a bitcoin transaction as illustrated in part 1.

Examples of Smart Contracts

A simple example of a smart contract can be seen in our daily interactions with vending machines. As the purchaser, you make your selection by engaging with the vending machine and then provide payment for the goods you have chosen. The computer within the machine then identifies your selection, receives your payment, verifies that it is adequate, and then dispenses the product you desired, thus fulfilling the contract.

In a smart contract, automated execution can apply to the entire agreement or just part of it. In the vending machine example, automated execution only begins after the user selects an item and makes a payment. This is partial automation.

A more complicated smart contract that relates to the entire agreement may take the form of a fundraiser on crowdfunding platforms like GoFundMe and Kickstarter. Donors or supporters of a certain goal or project can transfer money into a smart contract that has been programmed to hold all the received funds until a certain goal is reached. If the recipients of the funds meet the preset goal, the contract automatically passes the money to them. However, If the project fails to meet these preset goals, the money automatically goes back to the supporters.

Benefits of smart contracts

Because smart contracts are stored inside a blockchain, they inherit some interesting properties of blockchain technology which we discussed in part 1. We stated therein that blockchain is Immutable and Distributed.

In this context, "immutable" refers to the fact that once a smart contract is created, its code cannot be altered. This ensures that no unauthorized modifications can occur. "Distributed" would mean that the contract's output is validated by all participants in the network (in this case, the donors and recipients), preventing any single individual from forcing the contract to release funds without validation from others. As a result, tampering with smart contracts becomes highly improbable.

Conclusion

Smart contracts have many practical applications. Banks, for example, can use them to issue loans or offer automatic payments. Insurance companies can use them to process claims faster, and postal companies can use them for payment on delivery and so forth.

There are currently a handful of blockchains which support smart contracts, but the biggest one is Ethereum1. It was specifically created and designed to support smart contracts.

If you have interest in an in-depth discussion on this subject matter or any AI or Intellectual Property issues, feel free to contact us at **info@gobhozalegalpractice.co.bw Tel: 3116371**

Disclaimer: This article is for information only and should not be taken as a legal advice.

Ethereum is a platform that uses blockchain technology to enable the creation of smart contracts and other decentralized applications. Ether is the token used to facilitate transactions on the Ethereum network.