**Understanding Smart Contract Audit**

**What is meant by smart contract?**

One of the revolutionary technologies that have scaled up the industries to a very large extent is the introduction of Blockchain technology. It is a decentralized architecture where all the systems which are connected to the system can communicate with each other and as a result, any changes made to one system will be known to all the connected systems. Although the growth has seen a massive influence yet the attempted hacks have proved to be a setback in its growth. Blockchain applications incorporate the use of smart contracts for communicating with the blockchain, and these smart contracts have a lot of security vulnerabilities. This is where one needs a smart contract audit.

Smart contracts are a kind of digitized transaction protocol which are curated for carrying out the terms of a contract. The primary function of smart contracts is to address common contractual conditions while minimizing accidental exceptions and the involvement of different intermediaries.

**What is smart contract auditing?**

The process of audit in the case of a smart contract primarily focuses on scrutiny and investigation of all the codes which are used for underwriting all the terms and conditions present in the smart contract. With the help of such audits, the developers of smart contracts can easily recognize the vulnerabilities and bugs before the smart contract gets deployed. These audits are executed by third parties to ensure a detailed and well-maintained review of the code.

Before the smart contract gets deployed, it is a very important task to check all the codes so that if there is any discrepancy during the review period, it can be fixed properly and within a stipulated time. But the question that arises when we hear this is why is the audit so significant before the deployment phase. The answer to this is that once the code gets deployed, it is technically not possible to make any changes to the code or format it. This can lead to a decrease in the overall performance of the smart contract.

**What is the importance of smart contracts audit?**

Although Smart Contracts are a bit difficult to implement, the use of smart contract audits makes it quite hassle-free.Smart Contracts audits have a profound significance in the growing technology and the field of blockchain. Some of them are enlisted as follows.

1)One of the primary reasons why audits have so much significance and responsibility is because they help in the better optimization of the code.

2)Once smart contracts are written in the blockchain, it becomes inaccessible for any change or formatting. In this regard, the efficient performance of the smart contract gets into danger. Thus, it is important to audit so that the overall performance of smart contracts remains in a proper state.

3) The overall security concerning wallets like cryptocurrency is improved.

4)Although Blockchain, being a decentralized architecture, makes its network well secure, there are various attempts to break through the architecture and steal valuable data from the system. There have been various attacks in the past which revolved around blockchain. But smart contracts auditing defends against all such types of malicious hacking attacks and improves overall security.

5) Different types of attacks like short address attacks, replay attacks, Reordering attacks, etc are blocked from attacking enterprises with the use of smart contract auditing.

6)Smart contract audit is not only helpful for smart contracts but also for individuals who own any kind of decentralized app.

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