EY Blockchain Analyzer: Smart Contract and Token Review

Helping clients safely deploy smart contracts on the blockchain

More clients are building blockchain-based solutions using smart contracts. But many may not appreciate the underlying risks of blockchain technology, including NFTs, stablecoins and other applications. The Smart Contract Review Solution (SC&TR) uses customized simulations and reports to help clients identify common vulnerabilities, and mitigate potential risks as they deploy smart contracts.

Business challenges

The launch of Ethereum blockchain has accelerated the adoption of smart contracts, and significantly increased complexities around privacy.

Smart contracts govern ownership of digital assets and drive key business logic. Due to the nature of blockchain technology, any bugs or security vulnerabilities in the code may result in a significant loss of funds or reputational damage. Even a small bug can be exploited.

This means thorough testing is critical before deploying any smart contract. But many organizations do not have the methodology and tools to perform rigorous testing in-house.

Product description

EY Blockchain Analyzer: Smart Contract and Token Review Solution was developed after years of research and development as well as in-depth client experience, and aims to increase organizations' confidence in the design, usage, and deployment of blockchain-based applications for Ethereum Virtual Machine (EVM)-based networks.

The solutions covers several components including:

▸ **Security:** identifying common vulnerabilities and mitigating potential risks through pre-defined tests that assess alignment with industry standards and leading practices.

▸ **Functionality:** assessing the intended system design and functionality by understanding the expected outcome of the business logic within the source code.

▸ **Efficiency:** identifying opportunities to reduce gas consumption throughout the smart contract operation.

▸ **Quality:** confirming that coding quality meets industry standards.

▸ **Upgradability:** confirming the latest version is implemented, where applicable.

Key features

▸ Easily builds test scenarios for the smart contract based on design requirements.

▸ Executes transactions on our mainnet simulator as if they were on the actual mainnet.

▸ Simulates historical or future blocks to test time-triggered scenarios.

▸ Performs easy regression testing for code updates through only a few clicks.

▸ Tests directly from the developer environment by connecting through the EY API.
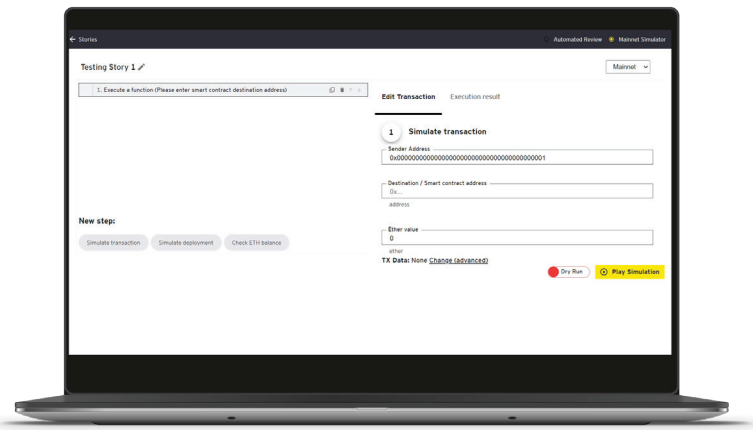
Product benefits

▸ **Reduced risk:** more information and insights help mitigate the operational and inherent risks of blockchain.

▸ **Transparency:** the solution helps build a picture of how tokens or smart contracts will behave, giving insights into functionality, security, compliance, and design implications.

▸ **Efficiency:** the solution reduces time required to test and validate the code.

▸ **Trust:** greater confidence in the validity of smart contracts and tokens increases trust between counterparties in the blockchain ecosystem.

Continuing the conversation

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