



Building a better  
working world

## How can blockchain innovation gain confidence and improve quality?

EY Blockchain Analyzer: Smart  
Contract and Token Review

The better the question. The better the answer. The better the world works.

### Use case – EY Blockchain Analyzer: Smart Contract and Token Review

EY Blockchain Analyzer: Smart Contract and Token Review (SC&TR) is a solution that aims to enhance confidence in blockchain-enabled transactions. By reviewing the underlining code of smart contracts, SC&TR helps identify common security vulnerabilities, validates the alignment of the code with business logic and improve code efficiency and quality.

#### Your business needs

As blockchain-based solutions accelerate, more enterprises are exploring the opportunities of this emerging technology. But, without proper safeguards in place, organizations may face new risks:

- ▶ **Security vulnerabilities:** Weaknesses within codes can result in financial losses, legal disputes, and reputational damage.
- ▶ **Meeting compliance:** Staying abreast of evolving regulations and industry standards can be challenging.
- ▶ **Maintaining trust:** Flawed contracts can erode trust between business counterparties and other stakeholders.

#### Your specific challenges

Smart contracts are highly complex. Most organizations lack either the robust frameworks and methodologies required to adequately assess these transactions,

or the deep experience to understand the impact of evolving industry and security trends.

#### How SC&TR solution can help solve your business needs?

The SC&TR leverages EY's experience in analyzing smart contracts and our understanding of smart contract vulnerabilities.

It is a robust solution based on our knowledge, research and experience which aims to provide a rigorous testing framework to efficiently and effectively assess:

- ▶ Security
- ▶ Functionality and business logic alignment
- ▶ Efficiency and gas consumption
- ▶ Code quality

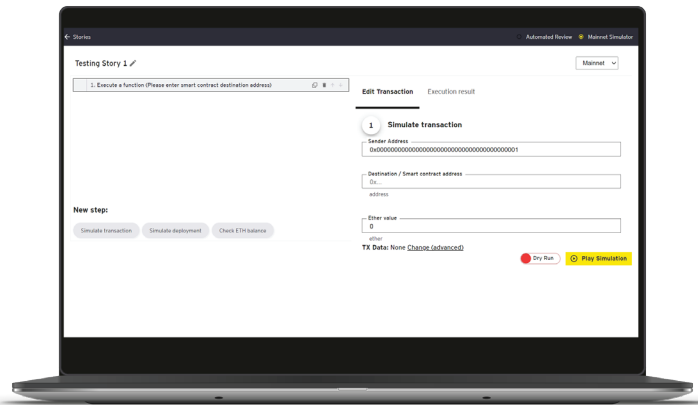
#### Potential business benefits

SC&TR allows organizations to confidently use blockchain solutions through enabling:

- ▶ **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.

## SC&TR features and functionality

- ▶ **Automated testing:** The advanced technology underpinning SC&TR means the solution can conduct significantly more, and deeper, tests on smart contracts than any manual review process could ever achieve.
- ▶ **Sophisticated simulations:** Our team can simulate sophisticated transactions as if they were performed on the Ethereum Mainnet. Our “what-if” scenarios can simulate multiple scenarios, including historical or future blocks and signing without the owner’s private key.
- ▶ **Market-leading regression testing:** Our ability to run regression testing after receiving remediated codes from clients allows for exceptionally efficient delivery.



## Why EY teams

- ▶ EY team’s insights and quality services, including assurance, help build trust and confidence in the world’s business ecosystems.
- ▶ EY teams deliver results to clients and stakeholders, supporting organizations to create sustainable, long-term value.
- ▶ Our ongoing investment in technology, methodologies and standards help advance trust in technology and drive continual innovation.

## Continuing the conversation

To learn more about how EY Blockchain Analyzer: SC&TR solution can help your organization, please contact:



**Avner Geifman**

Partner, SCTR Solution Lead  
avner.geifman@il.ey.com



**Aminadav Glickshtein**

Manager, Digital & Emerging Technologies, Blockchain Expert  
aminadav.glickshtein@il.ey.com

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BMC Agency

GA 17247139

EYG no. 004646-23Gbl

ED None

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