What does enterprise-grade blockchain security look like in practice?

EY Blockchain Analyzer:
Smart Contract & Token Review –
now with AI.

EY Shape the future with confidence

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

Use case

The EY Blockchain Analyzer: Smart Contract & Token Review (SC&TR) solution helps reduce risk in blockchain-enabled transactions. Now powered by advanced AI, SC&TR automatically analyzes smart contracts and generates hundreds of targeted test cases. Enabling faster, scalable, and rigorous reviews without the user having to have deep technical expertise.

The solution maps code structure and architecture, simulates real-world scenarios on the Ethereum Mainnet and testnet, and can identify vulnerabilities early. Now supported by a natural language security AI assistant, the interface makes testing accessible to both technical and non-technical users.

SC&TR is available via a user interface or API, making it easy for developers, auditors, and risk teams to run reviews at scale, integrate into workflows, and improve smart contract quality across the lifecycle. Whether you're launching a new smart contract, deploying a complex DeFi protocol, or tokenizing assets, SC&TR can help accelerate review processes and reduces manual effort.

Business benefits

SC&TR helps organizations to confidently adopt blockchain through enhanced transparency and proactive risk management.

Enhanced decision-making: SC&TR with AI creates comprehensive reports on smart contract analysis with high code coverage, equipping organizations with the insights needed to make informed decisions regarding blockchain adoption and implementation.

Transparency: Offers clearer insights into contract logic, dependencies, and vulnerabilities. Enabling informed decisions across technical and non-technical teams.

Reduced risk: Automatically identifies security and operational issues early in the lifecycle, with high code coverage, lowering exposure to costly errors or exploits.

Summary

EY's SC&TR uses AI to deliver faster, scalable reviews, automatically generating test cases, detecting vulnerabilities, and enabling intuitive natural language interaction. The solution helps strengthen blockchain security, reduce risk, and build trust in digital transactions.

Your business needs

As blockchain adoption accelerates, enterprises need full understanding of the functions and risks of their smart contracts to proactively address vulnerabilities which may cause monetary and reputational damage.

Security vulnerabilities: Code-level flaws can lead to exploits, lost assets, and legal exposure.

Regulatory compliance: Evolving global standards are making smart contract reviews more complex.

Transparency: Smart contract logic should be verifiable by non-technical stakeholders, enabling them to communicate effectively with tech teams.

Your specific challenges

Many organizations struggle to review smart contracts effectively due to limited in-house expertise, lack of scalable frameworks, and the difficulty of staying ahead of evolving security risks and blockchain code complexity.

How the solution can help

SC&TR combines advanced AI technology and proven risk frameworks to help clients test smart contracts at scale. This solution empowers teams to improve security, efficiency, and confidence across deployments without requiring additional blockchain resources.

- **Security:** Identifies common vulnerabilities and exploits early.

- **Logic alignment:** Validates contract behavior against business requirements.

- **Performance:** Helps enable optimized gas usage and improves overall code quality.

Continuing the conversation

If you would like to learn more about EY Blockchain Analyzer: Smart Contract & Token Review solution and how it can help your organization, please contact the team below.

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Solution features and functionality

- Formal mapping module analyzes code, dependencies, and architecture for deep understanding.

- AI security agent automatically builds hundreds of test scenarios based on design requirements and common vulnerabilities.

- Executes transactions on our Mainnet simulator as if they were on the actual Ethereum Mainnet.

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

- Security AI assistant enables natural language interaction with your code for intuitive testing and review.

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

- Tests directly from the developer environment by connecting through the EY API.

Why EY teams

The EY team brings deep technical expertise and industry insight to help build trust across global business ecosystems.

- With a strong foundation in enterprise risk management, EY delivers smart contract security tailored to business needs and regulatory requirements.

- Ongoing investment in blockchain technology enables secure, scalable smart contract deployment, advancing confidence in digital ecosystems and driving innovation across regulated and enterprise environments.

EY | Building a better working world

EY is building a better working world by creating new value for clients, people, society and the planet, while building trust in capital markets.

Enabled by data, AI and advanced technology, EY teams help clients shape the future with confidence and develop answers for the most pressing issues of today and tomorrow.

EY teams work across a full spectrum of services in assurance, consulting, tax, strategy and transactions. Fueled by sector insights, a globally connected, multidisciplinary network and diverse ecosystem partners, EY teams can provide services in more than 150 countries and territories.

All in to shape the future with confidence.

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