



Cyberscope

Audit Report

Roll Safe

June 2023

Network ETH

Address 0xa864B41abad8a2e3334c147A5E19oC51484f52B9

Audited by © cyberscope

Analysis

● Critical ● Medium ● Minor / Informative ● Pass

Severity	Code	Description	Status
●	ST	Stops Transactions	Passed
●	OTUT	Transfers User's Tokens	Passed
●	ELFM	Exceeds Fees Limit	Passed
●	MT	Mints Tokens	Passed
●	BT	Burns Tokens	Passed
●	BC	Blacklists Addresses	Passed

Diagnostics

● Critical ● Medium ● Minor / Informative

Severity	Code	Description	Status
●	IDI	Immutable Declaration Improvement	Unresolved
●	L19	Stable Compiler Version	Unresolved

Table of Contents

Analysis	1
Diagnostics	2
Table of Contents	3
Review	4
Audit Updates	4
Source Files	4
Findings Breakdown	5
IDI - Immutable Declaration Improvement	6
Description	6
Recommendation	6
L19 - Stable Compiler Version	7
Description	7
Recommendation	7
Functions Analysis	8
Inheritance Graph	9
Flow Graph	10
Summary	11
Disclaimer	12
About Cyberscope	13

Review

Contract Name	Token
Compiler Version	v0.8.4+commit.c7e474f2
Optimization	200 runs
Explorer	https://etherscan.io/address/0xa864b41abad8a2e3334c147a5e19ac51484f52b9
Address	0xa864b41abad8a2e3334c147a5e19ac51484f52b9
Network	ETH
Symbol	ROLLS
Decimals	18
Total Supply	1,000,000,000,000

Audit Updates

Initial Audit	22 Jun 2023
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Source Files

Filename	SHA256
Token.sol	25ac00c333c91858ed7d78a82d7d14f6fa7eeb38867e306e3e636bbfe1650685

Findings Breakdown



● Critical	0
● Medium	0
● Minor / Informative	2

Severity	Unresolved	Acknowledged	Resolved	Other
● Critical	0	0	0	0
● Medium	0	0	0	0
● Minor / Informative	2	0	0	0

IDI - Immutable Declaration Improvement

Criticality	Minor / Informative
Location	Token.sol#L15,16,17,18
Status	Unresolved

Description

The contract declares state variables that their value is initialized once in the constructor and are not modified afterwards. The `immutable` is a special declaration for this kind of state variables that saves gas when it is defined.

```
name
symbol
decimals
totalSupply
```

Recommendation

By declaring a variable as immutable, the Solidity compiler is able to make certain optimizations. This can reduce the amount of storage and computation required by the contract, and make it more gas-efficient.

L19 - Stable Compiler Version

Criticality	Minor / Informative
Location	Token.sol#L1
Status	Unresolved

Description

The `^` symbol indicates that any version of Solidity that is compatible with the specified version (i.e., any version that is a higher minor or patch version) can be used to compile the contract. The version lock is a mechanism that allows the author to specify a minimum version of the Solidity compiler that must be used to compile the contract code. This is useful because it ensures that the contract will be compiled using a version of the compiler that is known to be compatible with the code.

```
pragma solidity ^0.8.4;
```

Recommendation

The team is advised to lock the pragma to ensure the stability of the codebase. The locked pragma version ensures that the contract will not be deployed with an unexpected version. An unexpected version may produce vulnerabilities and undiscovered bugs. The compiler should be configured to the lowest version that provides all the required functionality for the codebase. As a result, the project will be compiled in a well-tested LTS (Long Term Support) environment.

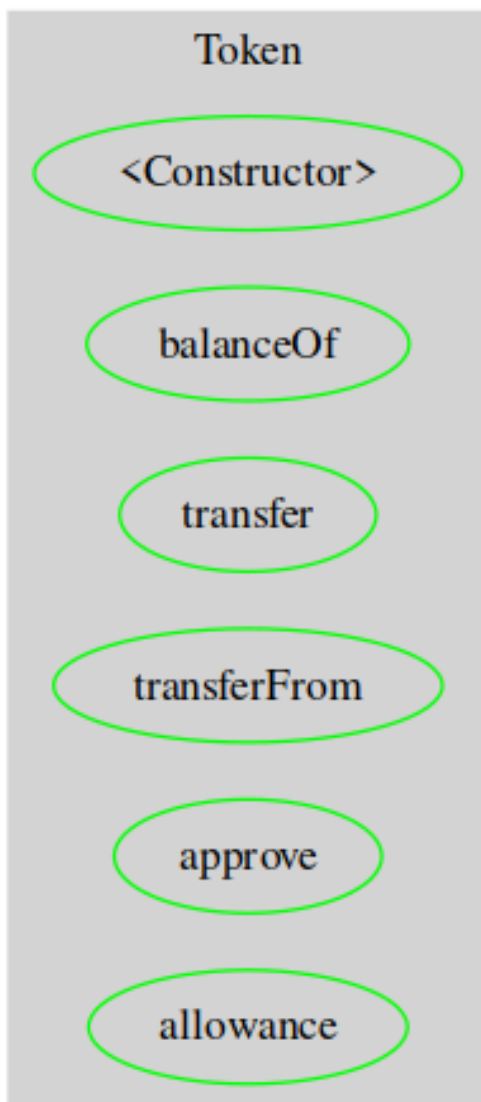
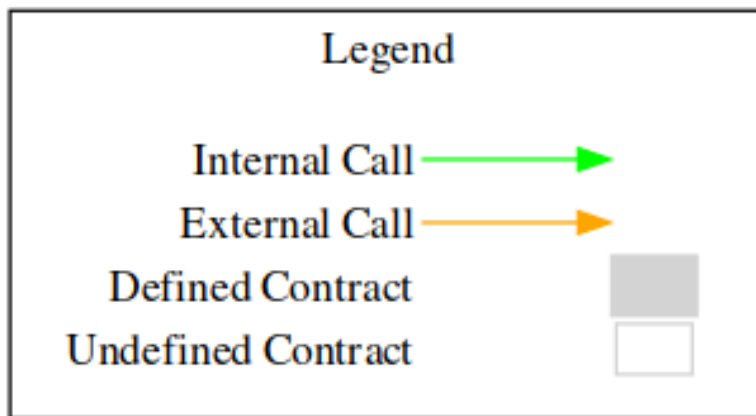
Functions Analysis

Contract	Type	Bases		
	Function Name	Visibility	Mutability	Modifiers
Token	Implementation			
		Public	✓	-
	balanceOf	Public		-
	transfer	Public	✓	-
	transferFrom	Public	✓	-
	approve	Public	✓	-
	allowance	Public		-

Inheritance Graph



Flow Graph



Summary

Roll Safe contract implements a token mechanism. This audit investigates security issues, business logic concerns and potential improvements. Roll Safe is an interesting project that has a friendly and growing community. The Smart Contract analysis reported no compiler error or critical issues.

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About Cyberscope

Cyberscope is a blockchain cybersecurity company that was founded with the vision to make web3.0 a safer place for investors and developers. Since its launch, it has worked with thousands of projects and is estimated to have secured tens of millions of investors' funds.

Cyberscope is one of the leading smart contract audit firms in the crypto space and has built a high-profile network of clients and partners.



The Cyberscope team

<https://www.cyberscope.io>