



Cyberscope

# Audit Report

## **RECORDIAN**

October 2023

Network     Pulsechain

Address     0x3C565e674cB13072B7E845f431FC1985756b1e79

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
●	L01	Public Function could be Declared External	Unresolved

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## Review

Contract Name	Recordian
Compiler Version	v0.4.24+commit.e67f0147
Optimization	200 runs
Explorer	<a href="https://scan.v4.testnet.pulsechain.com/address/0x3C565e674cB13072B7E845f431FC1985756b1e79/">https://scan.v4.testnet.pulsechain.com/address/0x3C565e674cB13072B7E845f431FC1985756b1e79/</a>
Address	0x3C565e674cB13072B7E845f431FC1985756b1e79
Network	Pulsechain
Symbol	RECORD
Decimals	18
Total Supply	3,000,000,000

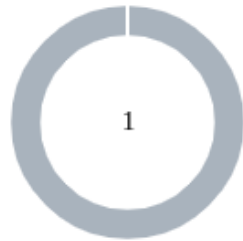
## Audit Updates

Initial Audit	11 Oct 2023 <a href="https://github.com/cyberscope-io/audits/blob/main/record/v1/audit.pdf">https://github.com/cyberscope-io/audits/blob/main/record/v1/audit.pdf</a>
Corrected Phase 2	17 Oct 2023

## Source Files

Filename	SHA256
Recordian.sol	dc21c564874613fa43d76d38e2eb490c5dd692575c2c0255de6cc576904a2e12

## Findings Breakdown



● Critical	0
● Medium	0
● Minor / Informative	1

Severity	Unresolved	Acknowledged	Resolved	Other
● Critical	0	0	0	0
● Medium	0	0	0	0
● Minor / Informative	1	0	0	0

## L01 - Public Function could be Declared External

Criticality	Minor / Informative
Location	Recordian.sol#L91,147
Status	Unresolved

### Description

A public function is a function that can be called from external contracts or from within the contract itself. An external function is a function that can only be called from external contracts, and cannot be called from within the contract itself.

It's generally a good idea to declare functions as external if they are only intended to be called from external contracts, as this can help make the contract's code easier to understand and maintain. Declaring a function as external can also help to improve the contract's performance and gas consumption.

```
function receiveApproval(address from, uint256 tokens, address
token, bytes data) public;

function approveAndCall(address spender, uint tokens, bytes
data) public returns (bool success) {
    allowed[msg.sender][spender] = tokens;
    emit Approval(msg.sender, spender, tokens);

    ApproveAndCallFallBack(spender).receiveApproval(msg.sender,
tokens, this, data);
    return true;
}
```

### Recommendation

It's important to choose the appropriate visibility for each function based on how it is intended to be used. Declaring a function as external when it should be public, or vice versa can lead to unnecessary gas consumption.

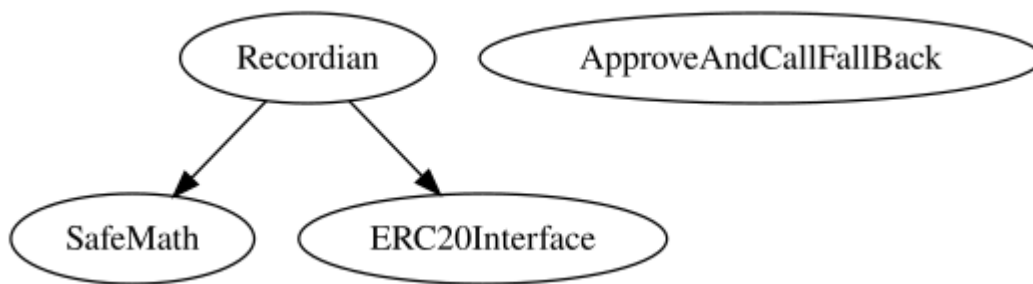
# Functions Analysis

Contract	Type	Bases		
	Function Name	Visibility	Mutability	Modifiers
<b>SafeMath</b>	Implementation			
	safeAdd	Public		-
	safeSub	Public		-
	safeMul	Public		-
	safeDiv	Public		-
<b>ERC20Interface</b>	Implementation			
	totalSupply	Public		-
	balanceOf	Public		-
	allowance	Public		-
	transfer	Public	✓	-
	approve	Public	✓	-
	transferFrom	Public	✓	-
<b>ApproveAndCallFallback</b>	Implementation			
	receiveApproval	Public	✓	-

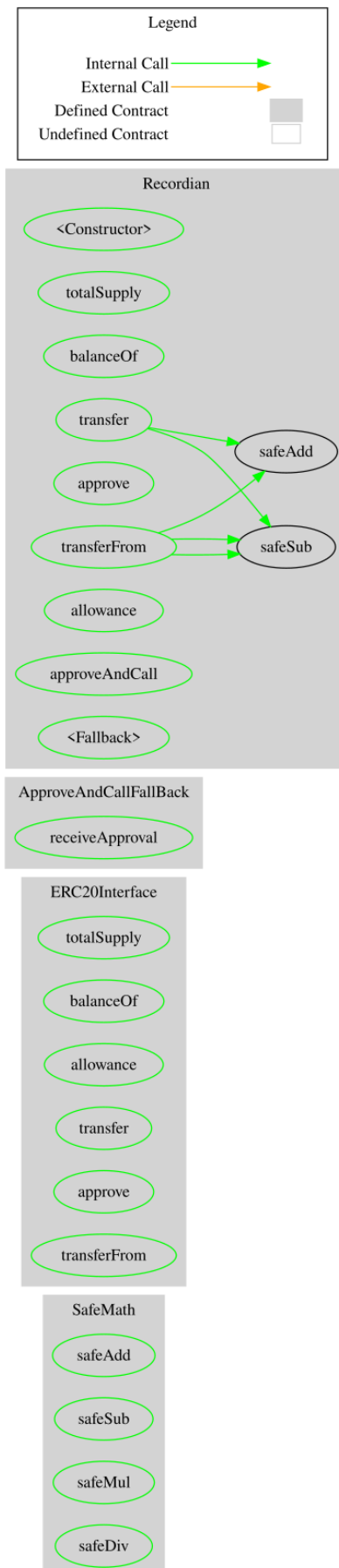


Recordian	Implementation	ERC20Interface, SafeMath		
		Public	✓	-
	totalSupply	Public		-
	balanceOf	Public		-
	transfer	Public	✓	-
	approve	Public	✓	-
	transferFrom	Public	✓	-
	allowance	Public		-
	approveAndCall	Public	✓	-
		Public	Payable	-

## Inheritance Graph



# Flow Graph



## Summary

Recordian contract implements a token mechanism. This audit investigates security issues, business logic concerns and potential improvements. Recordian is an interesting project that has a friendly and growing community. The Smart Contract analysis reported no compiler error or critical issues. The contract Owner can access some admin functions that can not be used in a malicious way to disturb the users' transactions.

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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>