



Smart Contract Audit

FOR
FLASH

DATED : 15 June 23'



AUDIT SUMMARY

Project name – FLASH

Date: 15 June, 2023

Scope of Audit- Audit Ace was consulted to conduct the smart contract audit of the solidity source codes.

Audit Status: **Passed**

Issues Found

Status	Critical	High	Medium	Low	Suggestion
Open	0	0	0	0	0
Acknowledged	0	0	0	0	0
Resolved	0	0	0	0	0

USED TOOLS

Tools:

1- Manual Review:

A line by line code review has been performed by audit ace team.

2- BSC Test Network: All tests were conducted on the BSC Test network, and each test has a corresponding transaction attached to it. These tests can be found in the "Functional Tests" section of the report.

3- Slither :

The code has undergone static analysis using Slither.

Testnet version:

The tests were performed using the contract deployed on the BSC Testnet, which can be found at the following address:

<https://testnet.bscscan.com/address/0xEE7776768dD8571E3482016CD138c3852988067E>



Token Information

Token Name : The Flash

Token Symbol: FLASH

Decimals: 9

Token Supply: 1,000,000,000,000,000

Token Address:

0x84E83650De3C4f564ebBd3259fC756a4f41b47f4

Checksum:

0ac8b43689586ec2f0b310755151bdcd87dba981

Owner:

0x251f358A551344382BFE469C9DBffA4373655181
(at time of writing the audit)

Deployer:

0x27C74256d53F4491a8295013D9eff16be6570863



TOKEN OVERVIEW

Fees:

Buy Fees: 0%

Sell Fees: 0%

Transfer Fees: 0%

Fees Privilege: No fees

Ownership: Not owned

Minting: none

Max Tx Amount/ Max Wallet Amount: No

Blacklist: No

Other Privileges: - initial distribution of tokens



AUDIT METHODOLOGY

The auditing process will follow a routine as special considerations by Auditace:

- Review of the specifications, sources, and instructions provided to Auditace to make sure the contract logic meets the intentions of the client without exposing the user's funds to risk.
 - Manual review of the entire codebase by our experts, which is the process of reading source code line-by-line in an attempt to identify potential vulnerabilities.
 - Specification comparison is the process of checking whether the code does what the specifications, sources, and instructions provided to Auditace describe.
 - Test coverage analysis determines whether the test cases are covering the code and how much code is exercised when we run the test cases.
 - Symbolic execution is analysing a program to determine what inputs cause each part of a program to execute.
 - Reviewing the codebase to improve maintainability, security, and control based on the established industry and academic practices.
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VULNERABILITY CHECKLIST

- | | |
|------------------------------------|-------------------------------|
| ✓ Return values of low-level calls | ✓ Gasless Send |
| ✓ Private modifier | ✓ Using block.timestamp |
| ✓ Multiple Sends | ✓ Re-entrancy |
| ✓ Using Suicide | ✓ Tautology or contradiction |
| ✓ Gas Limitand Loops | ✓ Timestamp Dependence |
| ✓ Address hardcoded | ✓ Revert/require functions |
| ✓ Exception Disorder | ✓ Use of tx.origin |
| ✓ Using inline assembly | ✓ Integer overflow/underflow |
| ✓ Divide before multiply | ✓ Dangerous strict equalities |
| ✓ Missing Zero Address Validation | ✓ Using SHA3 |
| ✓ Compiler version not fixed | ✓ Using throw |
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CLASSIFICATION OF RISK

Severity

Description

◆ Critical	These vulnerabilities could be exploited easily and can lead to asset loss, data loss, asset, or data manipulation. They should be fixed right away.
◆ High-Risk	A vulnerability that affects the desired outcome when using a contract, or provides the opportunity to use a contract in an unintended way.
◆ Medium-Risk	A vulnerability that could affect the desired outcome of executing the contract in a specific scenario.
◆ Low-Risk	A vulnerability that does not have a significant impact on possible scenarios for the use of the contract and is probably subjective.
◆ Gas Optimization / Suggestion	A vulnerability that has an informational character but is not affecting any of the code.

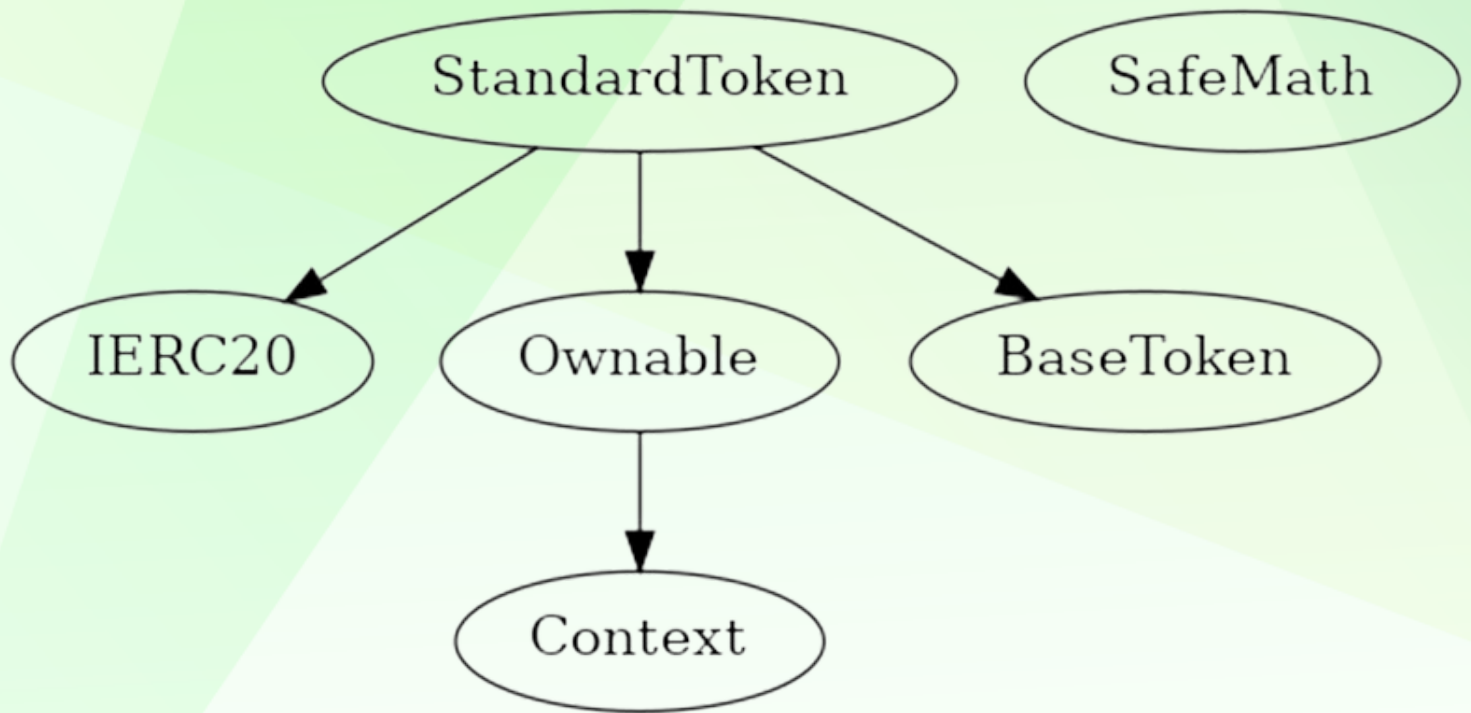
Findings

Severity

Found

◆ Critical	0
◆ High-Risk	0
◆ Medium-Risk	0
◆ Low-Risk	0
◆ Gas Optimization / Suggestions	0

INHERITANCE TREE





POINTS TO NOTE

- Fees are 0 (static)
 - Owner is not able to blacklist an arbitrary address.
 - Owner is not able to disable trades
 - Owner is not able to limit buy/sell/transfer/wallet amounts
 - Owner is not able to mint new tokens
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CONTRACT ASSESMENT

Contract	Type	Bases			
└──	**Function Name**	**Visibility**	**Mutability**	**Modifiers**	
	IERC20 Interface				
└──	totalSupply	External	!	NO	!
└──	balanceOf	External	!	NO	!
└──	transfer	External	!	NO	!
└──	allowance	External	!	NO	!
└──	approve	External	!	NO	!
└──	transferFrom	External	!	NO	!
	Context Implementation				
└──	_msgSender	Internal	🔒		
└──	_msgData	Internal	🔒		
	Ownable Implementation Context				
└──	<Constructor>	Public	!	NO	!
└──	owner	Public	!		
└──	renounceOwnership	Public	!	onlyOwner	
└──	transferOwnership	Public	!	onlyOwner	
└──	_setOwner	Private	🔒		
	SafeMath Library				
└──	tryAdd	Internal	🔒		
└──	trySub	Internal	🔒		
└──	tryMul	Internal	🔒		
└──	tryDiv	Internal	🔒		
└──	tryMod	Internal	🔒		
└──	add	Internal	🔒		
└──	sub	Internal	🔒		
└──	mul	Internal	🔒		
└──	div	Internal	🔒		
└──	mod	Internal	🔒		
└──	sub	Internal	🔒		
└──	div	Internal	🔒		
└──	mod	Internal	🔒		
	BaseToken Implementation				
	StandardToken Implementation IERC20, Ownable, BaseToken				
└──	<Constructor>	Public	!	NO	!
└──	name	Public	!	NO	!



CONTRACT ASSESMENT

	└	symbol Public	!		NO	!	
	└	decimals Public	!		NO	!	
	└	totalSupply Public	!		NO	!	
	└	balanceOf Public	!		NO	!	
	└	transfer Public	!		●	NO	!
	└	allowance Public	!		NO	!	
	└	approve Public	!		●	NO	!
	└	transferFrom Public	!		●	NO	!
	└	increaseAllowance Public	!		●	NO	!
	└	decreaseAllowance Public	!		●	NO	!
	└	_transfer Internal	🔒		●		
	└	_mint Internal	🔒		●		
	└	_burn Internal	🔒		●		
	└	_approve Internal	🔒		●		
	└	_setupDecimals Internal	🔒		●		
	└	_beforeTokenTransfer Internal	🔒		●		

Legend

	Symbol		Meaning	
	:-----:		-----	
	●		Function can modify state	
	💰		Function is payable	



STATIC ANALYSIS

```
StandardToken.allowance(address,address).owner (contracts/Token.sol#571) shadows:
  - Ownable.owner() (contracts/Token.sol#159-161) (function)
StandardToken.approve(address,address,uint256).owner (contracts/Token.sol#765) shadows:
  - Ownable.owner() (contracts/Token.sol#159-161) (function)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#local-variable-shadowing

Context.msgData() (contracts/Token.sol#118-120) is never used and should be removed
SafeMath.div(uint256,uint256) (contracts/Token.sol#349-351) is never used and should be removed
SafeMath.div(uint256,uint256,string) (contracts/Token.sol#405-414) is never used and should be removed
SafeMath.mod(uint256,uint256) (contracts/Token.sol#365-367) is never used and should be removed
SafeMath.mod(uint256,uint256,string) (contracts/Token.sol#431-440) is never used and should be removed
SafeMath.mul(uint256,uint256) (contracts/Token.sol#335-337) is never used and should be removed
SafeMath.sub(uint256,uint256) (contracts/Token.sol#321-323) is never used and should be removed
SafeMath.tryAdd(uint256,uint256) (contracts/Token.sol#221-230) is never used and should be removed
SafeMath.tryDiv(uint256,uint256) (contracts/Token.sol#272-280) is never used and should be removed
SafeMath.tryMod(uint256,uint256) (contracts/Token.sol#287-295) is never used and should be removed
SafeMath.tryMul(uint256,uint256) (contracts/Token.sol#252-265) is never used and should be removed
SafeMath.trySub(uint256,uint256) (contracts/Token.sol#237-245) is never used and should be removed
StandardToken.burn(address,uint256) (contracts/Token.sol#737-749) is never used and should be removed
StandardToken.setupDecimals(uint8) (contracts/Token.sol#783-785) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version^0.8.17 (contracts/Token.sol#469) necessitates a version too recent to be trusted. Consider deploying with 0.6.12/0.7.6/0.8.16
solc-0.8.19 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Variable StandardToken._totalSupply (contracts/Token.sol#487) is too similar to StandardToken.constructor(string,string,uint8,uint256).totalSupply_ (contracts/Token.sol#493)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#variable-names-too-similar

StandardToken.name (contracts/Token.sol#484) should be immutable
StandardToken.symbol (contracts/Token.sol#485) should be immutable
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#state-variables-that-could-be-declared-immutable
(contracts/Token.sol analyzed (6 contracts with 84 detectors): 33 results found)
```

Result => A static analysis of contract's source code has been performed using slither,

No major issues were found in the output



FUNCTIONAL TESTING

Router (PCS V2):

0xD99D1c33F9fC3444f8101754aBC46c52416550D1

1- Adding liquidity (passed):

<https://testnet.bscscan.com/tx/0x701fe361c70d45bac800ffd58c2f33bbaddb6b9aac9ebf10ec619a4d0509afc9>

2- Buying (0% tax) (passed):

<https://testnet.bscscan.com/tx/0x1d2c84524dc369fbf523a78bf463197532fc5896de836309a75254d160415020>

3- Selling (0% tax) (passed):

<https://testnet.bscscan.com/tx/0x44dc6a66c37ef5053bbc1ac1a88f5a5023dfa853c4828002cc7274b3b094e186>

4- Transferring 0% tax) (passed):

<https://testnet.bscscan.com/tx/0x9bdd134f1d5aa0dcc2ba0b0939bf02014d7eea62de3b85108ec6c0dd4e3b8b54>



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