



Cyberscope

# Audit Report

## **Froggo 2.0**

July 2023

Network    BSC

Address    0xbbae36183b024179b91a2a7b2dd9ab718ce28315

Minimal Proxy Contract for 0x99155e68ac1523b6f461f6427a90607eccf7bdf5

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
●	L04	Conformance to Solidity Naming Conventions	Unresolved
●	L09	Dead Code Elimination	Unresolved

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## Review

Explorer	<a href="https://bscscan.com/address/0xbbae36183b024179b91a2a7b2dd9ab718ce28315">https://bscscan.com/address/0xbbae36183b024179b91a2a7b2dd9ab718ce28315</a>
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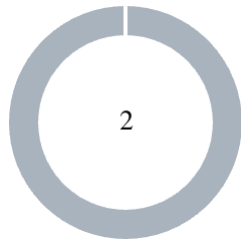
## Audit Updates

Initial Audit	22 Jul 2023
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## Source Files

Filename	SHA256
InitializableERC20.sol	62a0be77adfc7a73ca83edc5441b38b1d630ace5cbc7043aa9290a12c9094458

## 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

## L04 - Conformance to Solidity Naming Conventions

<b>Criticality</b>	Minor / Informative
<b>Location</b>	InitializableERC20.sol#L88,89,90,91,92
<b>Status</b>	Unresolved

### Description

The Solidity style guide is a set of guidelines for writing clean and consistent Solidity code. Adhering to a style guide can help improve the readability and maintainability of the Solidity code, making it easier for others to understand and work with.

The followings are a few key points from the Solidity style guide:

1. Use camelCase for function and variable names, with the first letter in lowercase (e.g., myVariable, updateCounter).
2. Use PascalCase for contract, struct, and enum names, with the first letter in uppercase (e.g., MyContract, UserStruct, ErrorEnum).
3. Use uppercase for constant variables and enums (e.g., MAX\_VALUE, ERROR\_CODE).
4. Use indentation to improve readability and structure.
5. Use spaces between operators and after commas.
6. Use comments to explain the purpose and behavior of the code.
7. Keep lines short (around 120 characters) to improve readability.

```
address _creator
uint256 _totalSupply
string memory _name
string memory _symbol
uint8 _decimals
```

### Recommendation

By following the Solidity naming convention guidelines, the codebase increased the readability, maintainability, and makes it easier to work with.

Find more information on the Solidity documentation

<https://docs.soliditylang.org/en/v0.8.17/style-guide.html#naming-convention>.



## L09 - Dead Code Elimination

Criticality	Minor / Informative
Location	InitializableERC20.sol#L36,57
Status	Unresolved

### Description

In Solidity, dead code is code that is written in the contract, but is never executed or reached during normal contract execution. Dead code can occur for a variety of reasons, such as:

- Conditional statements that are always false.
- Functions that are never called.
- Unreachable code (e.g., code that follows a return statement).

Dead code can make a contract more difficult to understand and maintain, and can also increase the size of the contract and the cost of deploying and interacting with it.

```
function divCeil(uint256 a, uint256 b) internal pure returns
(uint256) {
    uint256 quotient = div(a, b);
    uint256 remainder = a - quotient * b;
    if (remainder > 0) {
        return quotient + 1;
    } else {
        return quotient;
    }
}

...
```

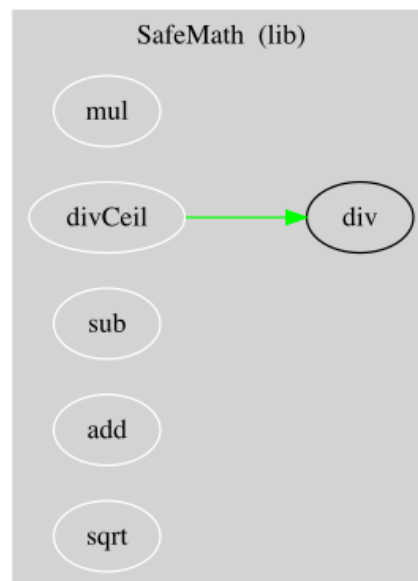
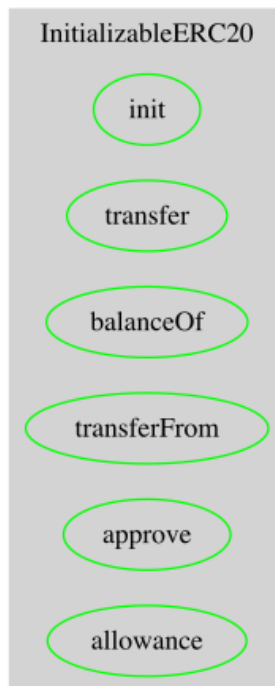
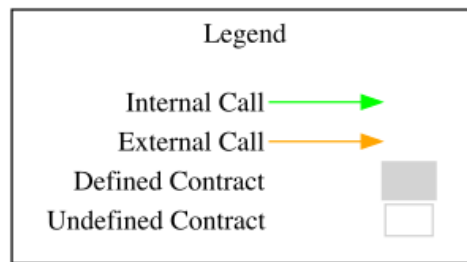
### Recommendation

To avoid creating dead code, it's important to carefully consider the logic and flow of the contract and to remove any code that is not needed or that is never executed. This can help improve the clarity and efficiency of the contract.

# Functions Analysis

Contract	Type	Bases		
	Function Name	Visibility	Mutability	Modifiers
<b>SafeMath</b>	Library			
	mul	Internal		
	div	Internal		
	divCeil	Internal		
	sub	Internal		
	add	Internal		
	sqrt	Internal		
<b>InitializableERC20</b>	Implementation			
	init	Public	✓	-
	transfer	Public	✓	-
	balanceOf	Public		-
	transferFrom	Public	✓	-
	approve	Public	✓	-
	allowance	Public		-

# Flow Graph



## Summary

Froggo 2.0 contract implements a token mechanism. This audit investigates security issues, business logic concerns and potential improvements. Froggo 2.0 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.

## Disclaimer

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Blockchain technology and cryptographic assets present a high level of ongoing risk. Cyberscope's position is that each company and individual are responsible for their own due diligence and continuous security. Cyberscope's goal is to help reduce the attack vectors and the high level of variance associated with utilizing new and consistently changing technologies and in no way claims any guarantee of security or functionality of the technology we agree to analyze. The assessment services provided by Cyberscope are subject to dependencies and are under continuing development. You agree that your access and/or use including but not limited to any services reports and materials will be at your sole risk on an as-is where-is and as-available basis. Cryptographic tokens are emergent technologies and carry with them high levels of technical risk and uncertainty. The assessment reports could include false positives, false negatives and other unpredictable results. The services may access and depend upon multiple layers of third parties.

## 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>