

Smart Contract Security Audit

Project: ADAM

Aug 13, 2022



Contract Address

0x7131a69e5ff658f6e3580bb2d138aae828a60ffc

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The review does not address the compiler layer, any other areas beyond the programming language, or other programming aspects that could present security risks. If the audited source files are smart contract files, risks or issues introduced by using data feeds from off-chain sources are not extended by this review either.



Audit Review

The source code of the POPCat was audited in order to acquire a clear impression of how the project was implemented. The Cracken Tech audit team conducted in-depth research, analysis, and scrutiny, resulting in a series of observations. A detailed list of each issue found, and vulnerabilities in the source code will be included in the audit report. The problems and potential solutions are given in this report, we will identify common sources for such problems and comments for improvement.

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

- Review of the specifications, sources, and instructions provided to Cracken 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 Cracken 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 analyzing 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.



Project Review

Token Summary

Parameter	Result
Token Name	POPCat
Token Symbol	POPCat
Token Decimal	9
Total Supply	100,000,000,000
Platform	BSC
Buy Tax Fee	5%
Sell Tax Fee	5%
Contract Creation Date	Aug 08, 2022
Liquidity Status	Not Available
Liquidity Lockup Time	Not Available
Compiler Version	v0.8.14+commit.80d49f37
Optimization	Yes with 200 runs
Contract Address	0x7131a69e5Ff658f6e3580bb2D138aaE828A60fFc
Deployer Address	0x85302D189959eA3671Fff64Fde0a1E457502f64c
Owner Address	0x85302D189959eA3671Fff64Fde0a1E457502f64c

Source Code

CRACKEN was commissioned by POPCat to perform an audit based on the following smart contract:

https://bscscan.com/address/0x7131a69e5Ff658f6e3580bb2D138aaE828A60fFc



Smart Contract Vulnerability Checks

Vulnerability	Auto-Scan	Manual-Scan	Result
Unencrypted Private Data On-Chain	Complete	Complete	Low / No Risk
Code With No Effects	Complete	Complete	Low / No Risk
Message call with hardcoded gas amount	Complete	Complete	Low / No Risk
Hash Collisions with Multiple Variable Length Arguments	Complete	Complete	Low / No Risk
Unexpected Ether balance	Complete	Complete	Low / No Risk
Presence of unused variables	Complete	Complete	Low / No Risk
Right-To-Left-Override control character (U+202E)	Complete	Complete	Low / No Risk
Typographical Error	Complete	Complete	Low / No Risk
DoS With Block Gas Limit	Complete	Complete	Low / No Risk
Arbitrary Jump with Function Type Variable	Complete	Complete	Low / No Risk
Insufficient Gas Grieving	Complete	Complete	Low / No Risk
Incorrect Inheritance Order	Complete	Complete	Low / No Risk
Write to Arbitrary Storage Location	Complete	Complete	Low / No Risk
Requirement Violation	Complete	Complete	Low / No Risk
Missing Protection against Signature Replay Attacks	Complete	Complete	Low / No Risk
Weak Sources of Randomness from Chain Attributes	Complete	Complete	Low / No Risk
Authorization through tx. origin	Complete	Complete	Low / No Risk
Delegate call to Untrusted Callee	Complete	Complete	Low / No Risk

Vulnerability	Auto-Scan	Manual-Scan	Result
Use of Deprecated Solidity Functions	Complete	Complete	Low / No Risk
Assert Violation	Complete	Complete	Low / No Risk
Reentrancy	Complete	Complete	Low / No Risk
Unprotected SELF-DESTRUCT Instruction	Complete	Complete	Low / No Risk
Unprotected Ether Withdrawal	Complete	Complete	Low / No Risk
Outdated Compiler Version	Complete	Complete	Low / No Risk
Integer Overflow and Underflow	Complete	Complete	Low / No Risk
Function Default Visibility	Complete	Complete	Low / No Risk



Manual Code Review

Classification of Issues

Severity	Description
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.
O Low-Risk	A vulnerability that does not have a significant impact on possible scenarios for the use of the contract and is probably subjective.
Informational	A vulnerability that has an informational character but is not affecting any of the code.

Findings

Severity	Found
High-Risk	0
Medium-Risk	0
O Low-Risk	0
Informational	2
Total	2

Informational: Implementation of certain corrective actions or accepting the risk.

Set max buy / sell tax fee

Description:

The owner can set fees up to 7%

```
function setBuyTaxes(uint256 newLiquidityTax, uint256 newMarketingTax, uint
newCharityTax) external onlyOwner {
        require(newLiquidityTax.add(newMarketingTax).add(newCharityTax) < 7);
        buyLiquidityFee = newLiquidityTax;
        _buyMarketingFee = newMarketingTax;
        _buyCharityFee = newCharityTax;
        _totalTaxIfBuying =
_buyLiquidityFee.add(_buyMarketingFee).add(_buyCharityFee);
    }
    function setSellTaxes(uint256 newLiquidityTax, uint256 newMarketingTax, uint
newCharityTax) external onlyOwner {
        require(newLiquidityTax.add(newMarketingTax).add(newCharityTax) < 7);
        _sellLiquidityFee = newLiquidityTax;
        _sellMarketingFee = newMarketingTax;
        _sellCharityFee = newCharityTax;
        _totalTaxIfSelling =
_sellLiquidityFee.add(_sellMarketingFee).add(_sellCharityFee);
    }
```



Informational: Implementation of certain corrective actions or accepting the risk.

Set AntiBot

Description:

The owner can set anti bot function.

bool public liquidityLaunched = false; // to track if launchLiquidity function has been called

bool public isFirstLaunch = true; // to track if launchLiquidity function has been called uint256 public lastSnipeTaxBlock; // set to blocks after liq added uint8 public snipeBlocks = 0;



Privileged Functions

onlyOwner

Function Name	Parameters	Visibility
decreaseAllowance	Address spender, unit256 subtractedValue	Public
increaseAllowance	Address spender, unit256 addedValue	Public
setBuyTaxes	uint256 newLiquidityTax, uint256 newMarketingTax, uint newCharityTax	External
setDistributionSettings	uint256 newLiquidityShare, uint256 newMarketingShare, uint256 newCharityShare	External
setlsExcludedFromFee	address account, bool newValue	Public
setMarketPairStatus	address account, bool newValue	Public
setMarketingWalletAddress	uint256 newAddress	External
setNumTokensBeforeSwap	uint256 newLimit	External
setSellTaxes	uint256 newLiquidityTax, uint256 newMarketingTax, uint newCharityTax	External
setSwapAndLiquifyByLimitOnly	bool newValue	Public
setSwapAndLiquifyEnabled	bool _enabled	Public



Contract Ownership

The contract ownership of POPCat is not currently renounced. The ownership of the contract grants special powers to the protocol creators, making them the sole addresses that can call sensible ownable functions that may alter the state of the protocol.

The current owner is the address 0x85302d189959ea3671fff64fde0a1e457502f64c which can be viewed: <u>HERE</u>

The owner wallet has the power to call the functions displayed on the privileged functions list above, if the owner wallet is compromised these privileges could be exploited.

We recommend the team renounce ownership at the right timing if possible, or gradually migrate to a time lock with governing functionalities in respect of transparency and safety considerations.

Liquidity Overview

Liquidity Information

Parameter	Result
Pair Address	0x4cb478c599bf7a909b451b610ff19b8e4d4ad8b7
POPCat Reserves	0.00 POPCat
BNB Reserves	0.00 BNB
Liquidity Value	\$0 USD
Liquidity Ownership	The token does not have liquidity at the moment of the audit



Tokenomics

Rank	Address	Quantity (Token)	Percentage
1	0x99d5e9f4ccf692e31dbfb3e5537782b6bbbebe52	100,000,000,000	100.0000%

Social Media Check

Social Media Type	Link	Result
Website	http://www.popcat-token.com	Checked
Twitter	https://twitter.com/POPCat_1000x/	Checked
Telegram	https://t.me/POPCat_Token_Officiall/	Checked
Discord	https://discord.gg/96DHbFS3Db	Checked



Website Review



- Mobile Friendly
- Contains no code errors
- SSL is not secured
- No spelling errors
- The website does not have an SSL Certificate



Audit Conclusion

- The owner cannot pause trading
- The owner cannot mint new tokens
- The owner cannot blacklist users
- The owner cannot set the max transaction amount.
- The owner can change the buy/sell fee up to 7%.
- The contract has an antibot function

AUDIT IS PASSED