March, 2022

TechRate

AUDIT COMPANY

Smart Contract Security Audit

Audit Details

Audited project

GrimaceCoin

Deployer address

0xa6941b3e98bf846196b0a1250acfdf079b4263b5

Client contacts:

GrimaceCoin team

Blockchain

Binance Smart Chain

Project website:

https://www.grimacebsc.com

Disclaimer

This is a limited report on our findings based on our analysis, in accordance with good industry practice as at the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, the details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report. While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the below disclaimer below – please make sure to read it in full.

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The analysis of the security is purely based on the smart contracts alone. No applications or operations were reviewed for security. No product code has been reviewed.

Background

TechRate was commissioned by GrimaceCoin to perform an audit of smart contracts:

https://bscscan.com/address/0xC6759a4Fc56B3ce9734035a56B36e8637c45b77E#code

The purpose of the audit was to achieve the following:

- Ensure that the smart contract functions as intended.
- Identify potential security issues with the smart contract.

The information in this report should be used to understand the risk exposure of the smart contract, and as a guide to improve the security posture of the smart contract by remediating the issues that were identified.

Contracts Details

Token contract details for 10.03.2022

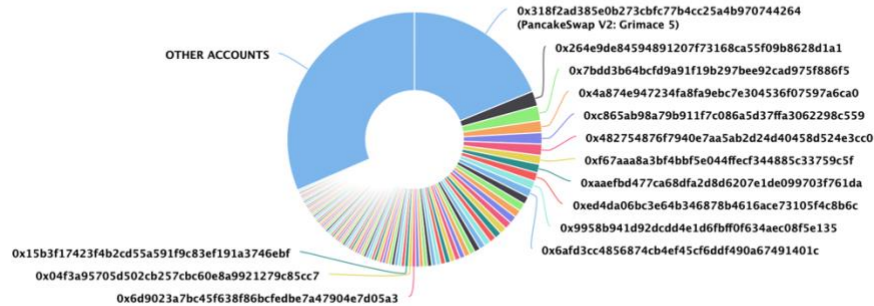|	
Contract name	GrimaceCoin
Contract address	0xC6759a4Fc56B3ce9734035a56B36e8637c45b77E
Total supply	1,000,000
Token ticker	Grimace
Decimals	18
Token holders	5,461
Transactions count	141,611
Top 100 holders dominance	68.52%
Liquidity fee	1
Rewards fee	0
Total fee	4
pair	0x318f2ad385e0b273cbfc77b4cc25a4b970744264
Contract deployer address	0xa6941b3e98bf846196b0a1250acfdf079b4263b5
Contract's current owner address	0xa6941b3e98bf846196b0a1250acfdf079b4263b5

GrimaceCoin Token Distribution

GrimaceCoin Top 100 Token Holders
Source: BscScan.com

0x318f2ad385e0b273cbfc77b4cc25a4b970744264
(PancakeSwap V2: Grimace 5)

0x264e9de84594891207f73168ca55f09b8628d1a1

0x7bdd3b64bcfd9a91f19b297bee92cad975f886f5

0x4a874e947234fa8fa9ebc7e304536f07597a6ca0

0xc865ab98a79b911f7c086a5d37ffa3062298c559

0x482754876f7940e7aa5ab2d24d40458d524e3cc0

0xf67aaa8a3bf4bbf5e044ffecf344885c33759c5f

0xaaefbd477ca68dfa2d8d6207e1de099703f761da

0xed4da06bc3e64b346878b4616ace73105f4c8b6c

0x9958b941d92dcdd4e1d6fbff0f634aec08f5e135

0x6afd3cc4856874cb4ef45cf6ddf490a67491401c

OTHER ACCOUNTS

0x15b3f17423f4b2cd55a591f9c83ef191a3746ebf

0x04f3a95705d502cb257cbc60e8a9921279c85cc7
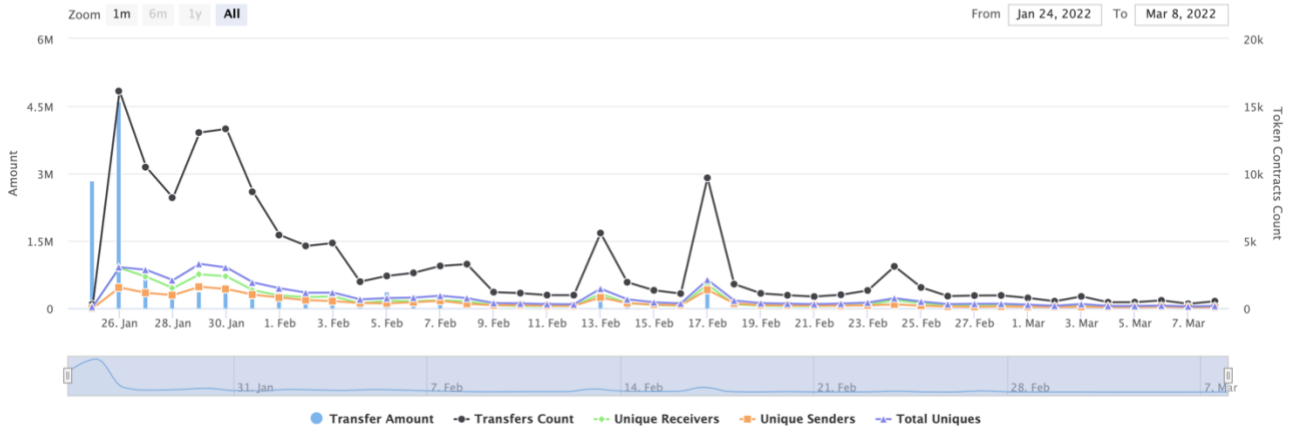
0x6d9023a7bc45f638f86bcfedbe7a47904e7d05a3

(A total of 685,158.51 tokens held by the top 100 accounts from the total supply of 1,000,000.00 token)

GrimaceCoin Contract Interaction Details

Token Contract 0xC6759a4Fc56B3ce9734035a56B36e8637c45b77E (GrimaceCoin)
Source: BscScan.com

Zoom 1m 6m 1y All   From Jan 24, 2022 To Mar 8, 2022

Legend: ● Transfer Amount   -●- Transfers Count   -+- Unique Receivers   -■- Unique Senders   -▲- Total Uniques

GrimaceCoin Top 10 Token Holders

Rank	Address	Quantity (Token)	Percentage
1	📄 PancakeSwap V2: Grimace 5	188,455.556631888738294894	18.8456%
2	0x264e9de84594891207f73168ca55f09b8628d1a1	19,000	1.9000%
3	0x7bdd3b64bcfd9a91f19b297bee92cad975f886f5	18,885.561561953549209165	1.8886%
4	0x4a874e947234fa8fa9ebc7e304536f07597a6ca0	15,095.534515846621397188	1.5096%
5	0xc865ab98a79b911f7c086a5d37ffa3062298c559	14,400	1.4400%
6	0x482754876f7940e7aa5ab2d24d40458d524e3cc0	14,298.903796681518843726	1.4299%
7	0xf67aaa8a3bf4bbf5e044ffecf344885c33759c5f	11,190.919369505054444798	1.1191%
8	0xaaefbd477ca68dfa2d8d6207e1de099703f761da	11,010.913839886452312388	1.1011%
9	0xed4da06bc3e64b346878b4616ace73105f4c8b6c	10,964.390016435287285074	1.0964%
10	0x9958b941d92dcdd4e1d6fbff0f634aec08f5e135	10,775.307327188444092882	1.0775%

GrimaceCoin LP Token Holders

Rank	Address	Quantity	Percentage
1	📄 0xae7e6cabad8d80f0b4e1c4dde2a5db7201ef1252	13,611.85063917501180093	97.5625%
2	GrimaceCoin: Deployer	322.61667818310684106	2.3123%
3	0xf937f2d190006bd7c4042a3be448828387ab37ac	7.400424479372758998	0.0530%
4	0x0985bf576bcb786cd830a44462a863db191b0e44	4.341095113464741507	0.0311%
5	0x3efef24056a6f33fdc1fb6a34e931b8995ca8b01	2.968076926561308053	0.0213%
6	0xb1b9b4bbe8a92d535f5df2368e7fd2ecfb3a1950	2.75524117785385848	0.0197%
7	📄 Null Address: 0x000...000	0.000000000000001	0.0000%

Contract functions details

+ [Lib] SafeMath
- [Int] add
- [Int] sub
- [Int] sub
- [Int] mul
- [Int] div
- [Int] div

+ [Int] IBEP20
- **[Ext]** totalSupply
- **[Ext]** decimals
- **[Ext]** symbol
- **[Ext]** name
- **[Ext]** getOwner
- **[Ext]** balanceOf
- **[Ext]** transfer **#**
- **[Ext]** allowance
- **[Ext]** approve **#**
- **[Ext]** transferFrom **#**

+ [Int] IDEXFactory
- **[Ext]** createPair **#**

+ [Int] IDEXRouter
- **[Ext]** factory
- **[Ext]** WETH
- **[Ext]** addLiquidity **#**
- **[Ext]** addLiquidityETH **($)**
- **[Ext]** swapExactTokensForTokensSupportingFeeOnTransferTokens **#**
- **[Ext]** swapExactETHForTokensSupportingFeeOnTransferTokens **($)**
- **[Ext]** swapExactTokensForETHSupportingFeeOnTransferTokens **#**

+ [Int] IDividendDistributor
- **[Ext]** setDistributionCriteria **#**
- **[Ext]** setShare **#**
- **[Ext]** deposit **($)**
- **[Ext]** process **#**
- **[Ext]** claimDividend **#**

+ DividendDistributor (IDividendDistributor)
- **[Pub]** <Constructor> **#**
- **[Ext]** setDistributionCriteria **#**
  - modifiers: onlyToken
- **[Ext]** setShare **#**
  - modifiers: onlyToken
- **[Ext]** deposit **($)**
  - modifiers: onlyToken
- **[Ext]** process **#**
  - modifiers: onlyToken
- [Int] shouldDistribute
- [Int] distributeDividend **#**

- **[Pub]** getUnpaidEarnings
- [Int] getCumulativeDividends
- [Int] addShareholder **#**
- [Int] removeShareholder **#**
- **[Ext]** claimDividend **#**

+ Auth
- **[Pub]** <Constructor> **#**
- **[Pub]** authorize **#**
  - modifiers: onlyOwner
- **[Pub]** unauthorize **#**
  - modifiers: onlyOwner
- **[Pub]** isOwner
- **[Pub]** isAuthorized
- **[Pub]** transferOwnership **#**
  - modifiers: onlyOwner

+ GrimaceCoin (IBEP20, Auth)
- **[Pub]** <Constructor> **#**
  - modifiers: Auth
- **[Ext]** <Fallback> **($)**
- **[Ext]** name
- **[Ext]** symbol
- **[Ext]** decimals
- **[Ext]** totalSupply
- **[Ext]** getOwner
- **[Pub]** getCirculatingSupply
- **[Pub]** balanceOf
- **[Ext]** allowance
- **[Pub]** approve **#**
- **[Ext]** approveMax **#**
- **[Pub]** claim **#**
- [Int] launched
- [Int] launch **#**
- **[Ext]** changeTxLimit **#**
  - modifiers: authorized
- **[Ext]** changeWalletLimit **#**
  - modifiers: authorized
- **[Ext]** changeRestrictWhales **#**
  - modifiers: authorized
- **[Ext]** changeIsFeeExempt **#**
  - modifiers: authorized
- **[Ext]** changeIsTxLimitExempt **#**
  - modifiers: authorized
- **[Ext]** changeIsDividendExempt **#**
  - modifiers: authorized
- **[Ext]** changeFees **#**
  - modifiers: authorized
- **[Ext]** changeFeeReceivers **#**
  - modifiers: authorized
- **[Ext]** changeSwapBackSettings **#**
  - modifiers: authorized
- **[Ext]** changeDistributionCriteria **#**
  - modifiers: authorized
- **[Ext]** changeDistributorSettings **#**

- modifiers: authorized
- **[Ext]** transfer **#**
- **[Ext]** transferFrom **#**
- [Int] _transferFrom **#**
- [Int] _basicTransfer **#**
- [Int] takeFee **#**
- **[Pub]** tradingStatus **#**
  - modifiers: onlyOwner
- [Int] swapBack **#**
  - modifiers: lockTheSwap

($) = payable function
 # = non-constant function

Issues Checking Status

Issue description	Checking status
1. Compiler errors.	Passed
2. Race conditions and Reentrancy. Cross-function race conditions.	Passed
3. Possible delays in data delivery.	Passed
4. Oracle calls.	Passed
5. Front running.	Passed
6. Timestamp dependence.	Passed
7. Integer Overflow and Underflow.	Passed
8. DoS with Revert.	Passed
9. DoS with block gas limit.	Passed
10. Methods execution permissions.	Passed
11. Economy model of the contract.	Passed
12. The impact of the exchange rate on the logic.	Passed
13. Private user data leaks.	Passed
14. Malicious Event log.	Passed
15. Scoping and Declarations.	Passed
16. Uninitialized storage pointers.	Passed
17. Arithmetic accuracy.	Passed
18. Design Logic.	Passed
19. Cross-function race conditions.	Passed
20. Safe Open Zeppelin contracts implementation and usage.	Passed
21. Fallback function security.	Passed

Security Issues

⊘ **High Severity Issues**

No high severity issues found.

⊘ **Medium Severity Issues**

No medium severity issues found.

⊘ **Low Severity Issues**

No low severity issues found.

Owner privileges (In the period when the owner is not renounced)

- Owner can change trading status.
- Authorized addresses can change the maximum transaction amount.
- Authorized addresses can change maximum wallet amount restriction.
- Authorized addresses can change restrictWhales value.
- Authorized addresses can exclude from fees.
- Authorized addresses can exclude from max transaction limit.
- Authorized addresses can exclude from dividends.
- Authorized addresses can change fees.
- Authorized addresses can change fee receivers.
- Authorized addresses can change distribution criteria and distribution GAS.

Conclusion

Smart contracts do not contain high severity issues! Liquidity pair contract's security is not checked due to out of scope.

Liquidity locking details provided by the team:
https://mudra.website/?certificate=yes&type=0&lp=0x318f2ad385e0b273cbfc77b4cc25a4b970744264

TechRate note:

Please check the disclaimer above and note, the audit makes no statements or warranties on business model, investment attractiveness or code sustainability. The report is provided for the only contract mentioned in the report and does not include any other potential contracts deployed by Owner.