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AUDIT COMPANY

Smart Contract Security Audit

TechRate

June, 2021

Audit Details

Audited project

Great Ape

Deployer address

0x1CeD142f322bCbdA11F2f69E5fa862a2F33b1F05

Client contacts:

Great Ape team

Blockchain

Binance Smart Chain

Project website:

https://greatape.cc/

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 Great Ape to perform an audit of smart contracts:

https://bscscan.com/address/0x7f4a15f5cf12e1650f090fb7bc7b0f240f1bde98#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 09.06.2021

Contract name	Great Ape
Contract address	0x7f4a15F5cf12E1650f090FB7Bc7B0f240f1bDe98
Total supply	99,969,794,323.70463
Token ticker	GREATAPE
Decimals	9
Token holders	2,523
Transactions count	11,302
Top 100 holders dominance	86.75%
Liquidity fee	2.5
Tax fee	2.5
Uniswap V2 pair	0x6dbd36a8a70f621ff5354bce5afe4c2d68f6f5a7
Contract deployer address	0x1CeD142f322bCbdA11F2f69E5fa862a2F33b1F05

Great Ape Token Distribution

The top 100 holders collectively own 86.75% (86,726,381,640.77 Tokens) of Great Ape

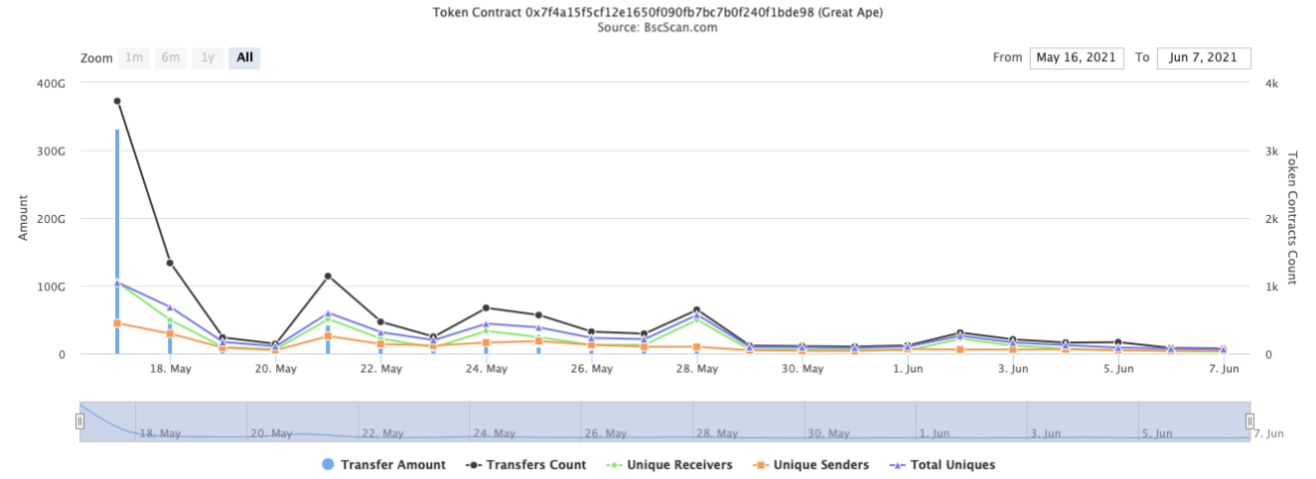
Token Total Supply: 99,969,794,323.70 Token | Total Token Holders: 2,523

(A total of 86,726,381,640.77 tokens held by the top 100 accounts from the total supply of 99,969,794,323.70 token)

Great Ape Contract Interaction Details

Time Series: Token Contract Overview

Mon 17, May 2021 - Mon 7, Jun 2021



Great Ape Top 10 Token Holders

Rank	Address	Quantity (Token)	Percentage
1	PancakeSwap V2: GREATAPE 2	23,152,872,108.124971482	23.1599%
2	0x000000000000000000000000000000000000dead	22,173,380,519.538128825	22.1801%
3	0x3462a62d95ecef081abc383965a338c940fc635c	2,499,722,484.973741606	2.5005%
4	0xa9690cf55f8b5833de1656cbe78a8c57a46e4bbb	2,098,646,592.795874231	2.0993%
5	0xe19fccf5ab03b049f7430d82f10a2c6177d2e442	2,021,370,686.724129892	2.0220%
6	0xf2e54b79556a257134b3cf1886643fb030dc8a2c	1,935,397,476.463583716	1.9360%
7	0x69ff448ae66ea2fe988fafe72343641b0a35f7d3	1,789,505,053.635067382	1.7900%
8	0x211cc182dfef70d294e679fcb744a857ff1004ea	1,289,517,459.410201936	1.2899%
9	0xb3c0bc50b421ba2106b8d358d9cbe13efc096418	1,177,007,179.680081843	1.1774%
10	0xfd06edb07c4dc5c086e359049f0112d418ec31db	1,029,977,328.05399738	1.0303%

Contract functions details

+ [Int] IUniswapV2Router02 (IUniswapV2Router01)
  - [Ext] removeLiquidityETHSupportingFeeOnTransferTokens #
  - [Ext] removeLiquidityETHWithPermitSupportingFeeOnTransferTokens #
  - [Ext] swapExactTokensForTokensSupportingFeeOnTransferTokens #
  - [Ext] swapExactETHForTokensSupportingFeeOnTransferTokens ($)
  - [Ext] swapExactTokensForETHSupportingFeeOnTransferTokens #

+ [Int] IUniswapV2Pair
  - [Ext] name
  - [Ext] symbol
  - [Ext] decimals
  - [Ext] totalSupply
  - [Ext] balanceOf
  - [Ext] allowance
  - [Ext] approve #
  - [Ext] transfer #
  - [Ext] transferFrom #
  - [Ext] DOMAIN_SEPARATOR
  - [Ext] PERMIT_TYPEHASH
  - [Ext] nonces
  - [Ext] permit #
  - [Ext] MINIMUM_LIQUIDITY
  - [Ext] factory
  - [Ext] token0
  - [Ext] token1
  - [Ext] getReserves
  - [Ext] price0CumulativeLast
  - [Ext] price1CumulativeLast
  - [Ext] kLast
  - [Ext] mint #
  - [Ext] burn #
  - [Ext] swap #
  - [Ext] skim #
  - [Ext] sync #
  - [Ext] initialize #

+ [Int] IUniswapV2Factory
  - [Ext] feeTo
  - [Ext] feeToSetter
  - [Ext] getPair
  - [Ext] allPairs
  - [Ext] allPairsLength
  - [Ext] createPair #
  - [Ext] setFeeTo #
  - [Ext] setFeeToSetter #

+ [Int] IUniswapV2Router01
  - [Ext] factory
  - [Ext] WETH
  - [Ext] addLiquidity #
  - [Ext] addLiquidityETH ($)

  - [Ext] removeLiquidity #
  - [Ext] removeLiquidityETH #
  - [Ext] removeLiquidityWithPermit #
  - [Ext] removeLiquidityETHWithPermit #
  - [Ext] swapExactTokensForTokens #
  - [Ext] swapTokensForExactTokens #
  - [Ext] swapExactETHForTokens ($)
  - [Ext] swapTokensForExactETH #
  - [Ext] swapExactTokensForETH #
  - [Ext] swapETHForExactTokens ($)
  - [Ext] quote
  - [Ext] getAmountOut
  - [Ext] getAmountIn
  - [Ext] getAmountsOut
  - [Ext] getAmountsIn

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

+ [Int] IERC20
  - [Ext] totalSupply
  - [Ext] balanceOf
  - [Ext] transfer #
  - [Ext] allowance
  - [Ext] approve #
  - [Ext] transferFrom #

+ Context
  - [Int] _msgSender
  - [Int] _msgData

+ [Lib] Address
  - [Int] isContract
  - [Int] sendValue #
  - [Int] functionCall #
  - [Int] functionCall #
  - [Int] functionCallWithValue #
  - [Int] functionCallWithValue #
  - [Prv] _functionCallWithValue #

+ GREATAPE (Context, IERC20)
  - [Pub] <Constructor> #
  - [Ext] <Fallback> ($)
  - [Pub] launch #
  - [Pub] endTxLimit #
  - [Pub] reduceLpFee #
  - [Pub] name
  - [Pub] symbol

- [Pub] decimals
- [Pub] v2PairAddress
- [Pub] currentLiquidityFee
- [Pub] totalSupply
- [Pub] balanceOf
- [Pub] transfer #
- [Pub] allowance
- [Pub] approve #
- [Pub] transferFrom #
- [Pub] increaseAllowance #
- [Pub] decreaseAllowance #
- [Pub] reflect #
- [Pub] tokenFromReflection
- [Pub] reflectionFromToken
- [Prv] _approve #
- [Prv] _transfer #
- [Prv] _transferFromPool #
- [Prv] _transferToPool #
- [Prv] _transferStandard #
- [Prv] _getTxValues
- [Prv] _getTValues
- [Prv] _getRValues
- [Prv] _getRate
- [Prv] swapLiquidity #
- [Prv] _swapAndAddLp #
- [Pub] flipAndBurn #
- [Pub] flipAndBurnExact #
- [Prv] _flipAndBurnTokens #
- [Prv] _swapTokensForEth #
- [Prv] _swapEthForTokens #
- [Prv] _addLiquidity #

($) = 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.

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:
Liquidity burnt
https://bscscan.com/tx/0x8d35ca419878ff6fd45d9abb8ddfbf99c0b8bfa2bfcd105974f60626536e9809
https://bscscan.com/token/0x6dbd36a8a70f621ff5354bce5afe4c2d68f6f5a7?a=0x000000000000000000000000000000000000dead

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.