



TechRate
AUDIT COMPANY

Smart Contract Security Audit

TechRate

December, 2021

Audit Details



Audited project

RatRace



Deployer address

0x956dcdf102162763d944c53013d380bf8836ef58



Client contacts:

RatRace team



Blockchain

Ethereum



Project website:

<https://ratrace.city/>

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 RatRace to perform an audit of smart contracts:

<https://etherscan.io/address/0xd26c77d4f03dab3c61e87a233c624c5755c49bb3#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 11.12.2021

Contract name	RatRace
Contract address	0xD26c77d4F03dAb3C61E87A233C624C5755C49bb3
Total supply	1,000,000,000,000
Token ticker	RatRace
Decimals	9
Token holders	403
Transactions count	1,296
Top 100 holders dominance	94.62%
Contract deployer address	0x956dcdf102162763d944c53013d380bf8836ef58
Contract's current owner address	0x00

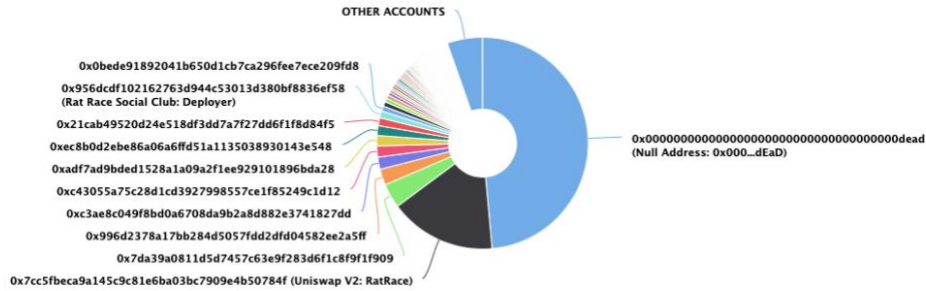
RatRace Token Distribution

💡 The top 100 holders collectively own 94.62% (946,155,238,691.23 Tokens) of RatRace

💡 Token Total Supply: 1,000,000,000,000.00 Token | Total Token Holders: 403

RatRace Top 100 Token Holders

Source: Etherscan.io



(A total of 946,155,238,691.23 tokens held by the top 100 accounts from the total supply of 1,000,000,000,000.00 token)

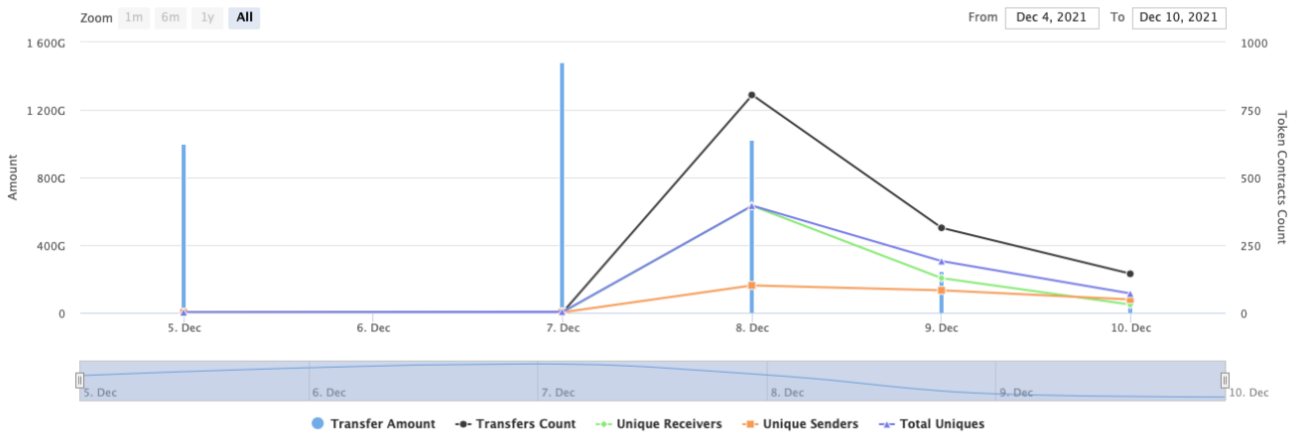
RatRace Contract Interaction Details

Time Series: Token Contract Overview


Sun 5, Dec 2021 - Fri 10, Dec 2021

Token Contract 0xd26c77d4f03dab3c61e87a233c624c5755c49bb3 (RatRace)

Source: Etherscan.io



RatRace Top 10 Token Holders

Rank	Address	Quantity (Token)	Percentage
1	Null Address: 0x000...dEaD	485,628,637,638.572200249	48.5629%
2	 Uniswap V2: RatRace	163,105,257,001.148934123	16.3105%
3	0x7da39a0811d5d7457c63e9f283d6f1c8f9f1f909	37,018,974,018.04076435	3.7019%
4	0x996d2378a17bb284d5057fdd2dfd04582ee2a5ff	24,555,132,340.52625694	2.4555%
5	0xc3ae8c049f8bd0a6708da9b2a8d882e3741827dd	18,618,283,389.047047581	1.8618%
6	0xc43055a75c28d1cd3927998557ce1f85249c1d12	17,017,289,912.832252538	1.7017%
7	0xadf7ad9bded1528a1a09a2f1ee929101896bda28	15,748,235,100.923837917	1.5748%
8	0xec8b0d2ebe86a06a6ffd51a1135038930143e548	14,885,231,800.430652725	1.4885%
9	0x21cab49520d24e518df3dd7a7f27dd6f1f8d84f5	12,137,662,767.306195125	1.2138%
10	Rat Race Social Club: Deployer	10,596,906,039.659744165	1.0597%



Contract functions details

- + Context
 - [Int] _msgSender
- + [Int] IERC20
 - [Ext] totalSupply
 - [Ext] balanceOf
 - [Ext] transfer #
 - [Ext] allowance
 - [Ext] approve #
 - [Ext] transferFrom #
- + [Lib] SafeMath
 - [Int] add
 - [Int] sub
 - [Int] sub
 - [Int] mul
 - [Int] div
 - [Int] div
- + Ownable (Context)
 - [Pub] <Constructor> #
 - [Pub] owner
 - [Pub] renounceOwnership #
 - modifiers: onlyOwner
- + [Int] IUniswapV2Factory
 - [Ext] createPair #
- + [Int] IUniswapV2Router02
 - [Ext] swapExactTokensForETHSupportingFeeOnTransferTokens #
 - [Ext] factory
 - [Ext] WETH
 - [Ext] addLiquidityETH (\$)
- + RatRace (Context, IERC20, Ownable)
 - [Pub] <Constructor> #
 - [Pub] name
 - [Pub] symbol
 - [Pub] decimals
 - [Pub] totalSupply
 - [Pub] balanceOf
 - [Pub] transfer #
 - [Pub] allowance
 - [Pub] approve #
 - [Pub] transferFrom #
 - [Ext] setCooldownEnabled #
 - modifiers: onlyOwner
 - [Prv] tokenFromReflection
 - [Prv] removeAllFee #
 - [Prv] restoreAllFee #
 - [Prv] _approve #

- [Prv] _transfer #
- [Prv] swapTokensForEth #
 - modifiers: lockTheSwap
- [Prv] sendETHToFee #
- [Ext] prepareTrading #
 - modifiers: onlyOwner
- [Ext] openTrading #
 - modifiers: onlyOwner
- [Pub] setBots #
 - modifiers: onlyOwner
- [Pub] delBot #
 - modifiers: onlyOwner
- [Prv] _tokenTransfer #
- [Prv] _transferStandard #
- [Prv] _takeTeam #
- [Prv] _reflectFee #
- [Ext] <Fallback> (\$)
- [Ext] manualswap #
- [Ext] manualsend #
- [Prv] _getValues
- [Prv] _getTValues
- [Prv] _getRValues
- [Prv] _getRate
- [Prv] _getCurrentSupply
- [Pub] setMaxTxPercent #
 - modifiers: onlyOwner
- [Pub] setTradingOpen #
 - modifiers: onlyOwner
- [Ext] withdraw #
 - modifiers: onlyOwner

(\$)= 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 prepare and open trading.
- Owner can withdraw contract BNBs.
- Owner can enable cooldown(user to user trading with time offset).
- Owner can change the maximum transaction amount.
- Owner can add and remove bots(no transferring between this addresses).
- Fee address can withdraw half of the contract balance to fee address another half to marketing address.

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://app.unicrypt.network/amm/uni-v2/pair/0x7cc5fbeca9a145c9c81e6ba03bc7909e4b50784f>

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.