



TechRate
AUDIT COMPANY

Smart Contract Security Audit

Audit Details



Audited project

UpZero



Deployer address

0xfc1cf55012cbbdea6057ab9a34c4b549e437f485



Client contacts:

UpZero team



Blockchain

Binance Smart Chain



Project website:

Not provided

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 UpZero to perform an audit of smart contracts:

<https://bscscan.com/address/0xbb2CF197eBD54DcDdf4304D237aCeE93d6C71780#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 25.01.2022

Contract name	UpZero
Contract address	0xbb2CF197eBD54DcDdf4304D237aCeE93d6C71780
Total supply	50,000,000
Token ticker	Zup
Decimals	18
Token holders	1
Transactions count	2
Top 100 holders dominance	100.00%
Static vals	10000
Buy / Sell / Transfer fee rate	0/300/0
Trading enabled	False
Lp pair	0x64b50c2152c1daf663bd3209fb9baeca0684bfca
Contract deployer address	0xfc1cf55012cbbdea6057ab9a34c4b549e437f485
Contract's current owner address	0xbfac2d23b88aaab15770009b76d9a11e61570658

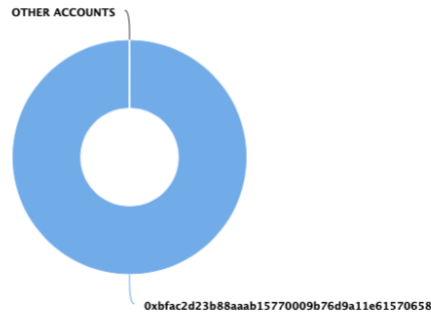
UpZero Token Distribution

The top 100 holders collectively own 100.00% (50,000,000.00 Tokens) of UpZero

Token Total Supply: 50,000,000.00 Token | Total Token Holders: 1

UpZero Top 100 Token Holders

Source: BscScan.com



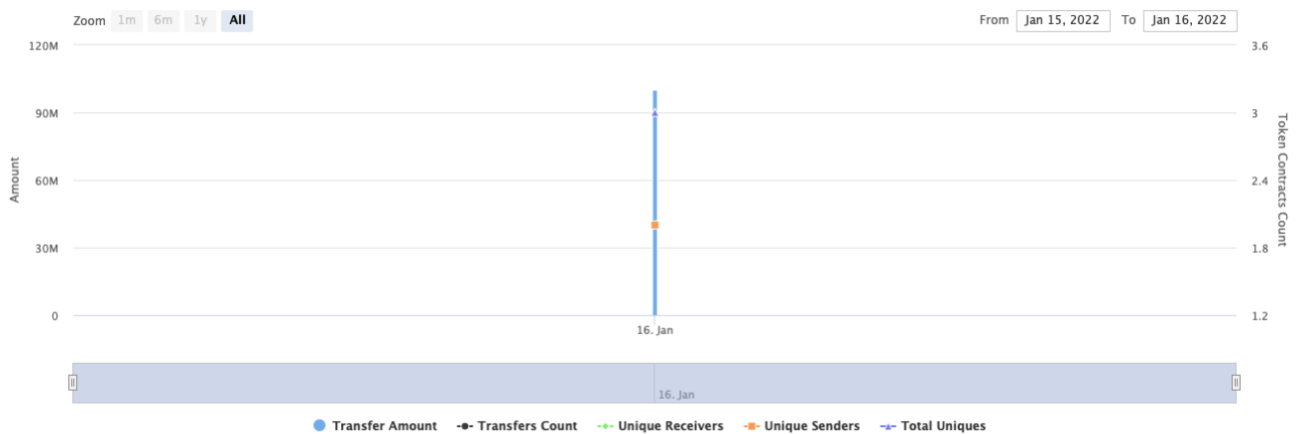
(A total of 50,000,000.00 tokens held by the top 100 accounts from the total supply of 50,000,000.00 token)

UpZero contract interaction details

Time Series: Token Contract Overview

Sun 16, Jan 2022 - Sun 16, Jan 2022

Token Contract 0xbb2CF197e8D54DcDdf4304D237aCeE93d6C71780 (UpZero)
Source: BscScan.com



UpZero Top 10 Token Holders

Rank	Address	Quantity (Token)	Percent
1.	0xbfac2d23b88aaab15770009b76d9a11e61570658	50,000,000	100.0000%



Contract functions details

+ Context

- [Int] _msgSender
- [Int] _msgData

+ [Int] IERC20

- [Ext] totalSupply
- [Ext] decimals
- [Ext] symbol
- [Ext] name
- [Ext] getOwner
- [Ext] balanceOf
- [Ext] transfer #
- [Ext] allowance
- [Ext] approve #
- [Ext] transferFrom #

+ [Int] IFactoryV2

- [Ext] getPair
- [Ext] createPair #

+ [Int] IV2Pair

- [Ext] factory
- [Ext] getReserves

+ [Int] IRouter01

- [Ext] factory
- [Ext] WETH
- [Ext] addLiquidityETH (\$)
- [Ext] quote
- [Ext] getAmountOut
- [Ext] getAmountIn
- [Ext] getAmountsOut
- [Ext] getAmountsIn

+ [Int] IRouter02 (IRouter01)

- [Ext] swapExactTokensForETHSupportingFeeOnTransferTokens #
- [Ext] swapExactETHForTokensSupportingFeeOnTransferTokens (\$)

+ [Int] AntiSnipe

- [Ext] checkUser #
- [Ext] setLaunch #
- [Ext] setLpPair #
- [Ext] setProtections #
- [Ext] setGasPriceLimit #
- [Ext] removeSniper #
- [Ext] getSniperAmt
- [Ext] removeBlacklisted #
- [Ext] isBlacklisted
- [Ext] transfer #

+ UpZero (Context, IERC20)

- [Pub] <Constructor> (\$)
- [Ext] <Fallback> (\$)
- [Pub] owner
- [Ext] transferOwner #
 - modifiers: onlyOwner
- [Pub] renounceOwnership #
 - modifiers: onlyOwner
- [Ext] totalSupply
- [Ext] decimals
- [Ext] symbol
- [Ext] name
- [Ext] getOwner
- [Ext] allowance
- [Pub] balanceOf
- [Pub] transfer #
- [Pub] approve #
- [Prv] _approve #
- [Pub] approveContractContingency #
 - modifiers: onlyOwner
- [Ext] transferFrom #
- [Pub] increaseAllowance #
- [Pub] decreaseAllowance #
- [Pub] setNewRouter #
 - modifiers: onlyOwner
- [Ext] setLpPair #
 - modifiers: onlyOwner
- [Pub] isExcludedFromFees
- [Pub] setExcludedFromFees #
 - modifiers: onlyOwner
- [Ext] setInitializer #
 - modifiers: onlyOwner
- [Ext] removeBlacklisted #
 - modifiers: onlyOwner
- [Pub] isBlacklisted
- [Pub] getSniperAmt
- [Ext] removeSniper #
 - modifiers: onlyOwner
- [Ext] setProtectionSettings #
 - modifiers: onlyOwner
- [Ext] setGasPriceLimit #
 - modifiers: onlyOwner
- [Ext] setMaxTxPercent #
 - modifiers: onlyOwner
- [Pub] getMaxTX
- [Ext] setSwapSettings #
 - modifiers: onlyOwner
- [Ext] setWallets #
 - modifiers: onlyOwner
- [Pub] setContractSwapEnabled #
 - modifiers: onlyOwner
- [Prv] _hasLimits
- [Int] _transfer #
- [Prv] contractSwap #
 - modifiers: lockTheSwap
- [Prv] _checkLiquidityAdd #

- [Pub] enableTrading #
 - modifiers: onlyOwner
- [Ext] sweepContingency #
 - modifiers: onlyOwner
- [Ext] multiSendTokens #
- [Ext] multiSendPercents #
- [Prv] _finalizeTransfer #
- [Int] takeTaxes #

(\$) = 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.	Low issues
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.	Low issues
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

1. Out of gas

Issue:

- The function `multiSendTokens()` and `multiSendPercents()` uses the loop to multitransfer. Function will be aborted with `OUT_OF_GAS` exception if there will be a long addresses list.

Recommendation:

Check that the array length is not too big.

2. Non fixed solidity version

Issue:

- Solidity version is not fixed. Contract use operators, that works different way on different solidity versions.

```
// SPDX-License-Identifier: MIT  
pragma solidity >=0.6.0 <0.9.0;
```

Recommendation:

Fix solidity version to one or reduce versions range.

Notes:

- `contractSwap()` function do not adding liquidity, but only swaps tokens to marketing address.

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

- Owner can transfer whole ownership.
- Owner can change router address.
- Owner can include in LpPair array.
- Owner can exclude from the fee.
- Owner can change antisnipe address.
- Owner can remove sniper addresses.
- Owner can change protection settings.
- Owner can change antisnipe gas limit.
- Owner can change max transaction amount.
- Owner can change swapThreshold and swapAmount.
- Owner can change marketing address.
- Owner can enable/disable contractSwapEnabled.
- Owner can enable trading.
- Owner can withdraw contract BNBs.

Conclusion

Smart contracts contain low severity issues! Liquidity pair contract's security is not checked due to out of scope. Contract contain interfaces that is not audited, some functions may work different ways.

Liquidity locking details NOT provided by the team.

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.



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