



TechRate

AUDIT COMPANY

Smart Contract Security Audit

TechRate

October, 2021

Audit Details



Audited project

AnchorSwap Token



Deployer address

0xa74e3ae01b9d2e3c3dae9556d7625f2485642812



Client contacts:

AnchorSwap Token team



Blockchain

Binance Smart Chain



Project website:

<https://anchorswap.finance/>
<https://anchorswap.app/>

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 AnchorSwap Token to perform an audit of smart contracts:

<https://bscscan.com/address/0x4aac18de824ec1b553dbf342829834e4ff3f7a9f#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 20.10.2021

| | |
|---|--|
| Contract name | AnchorSwap Token |
| Contract address | 0x4aac18De824eC1b553dbf342829834E4FF3F7a9F |
| Total supply | 117,911,818.175174 |
| Token ticker | ANCHOR |
| Decimals | 18 |
| Token holders | 1,850 |
| Transactions count | 189,895 |
| Top 100 holders dominance | 98.36% |
| Contract deployer address | 0xa74e3ae01b9d2e3c3dae9556d7625f2485642812 |
| Contract's current owner address | 0x23f7f3119d1b5b6c94a232680e2925703c4ebbf5 |

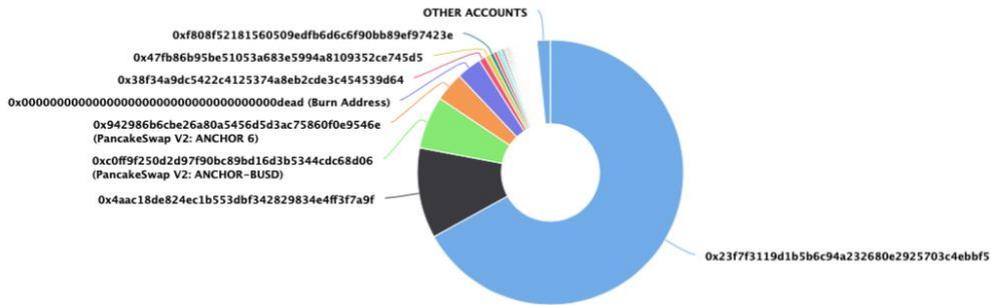
AnchorSwap Token Token Distribution

The top 100 holders collectively own 98.36% (115,982,567.45 Tokens) of AnchorSwap Token

Token Total Supply: 117,911,818.18 Token | Total Token Holders: 1,850

AnchorSwap Token Top 100 Token Holders

Source: BscScan.com



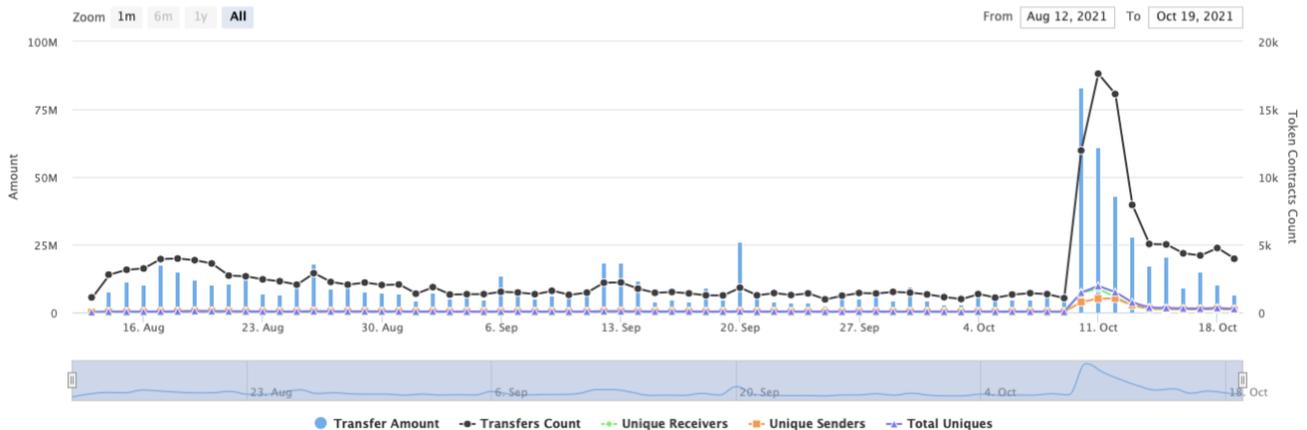
(A total of 115,982,567.45 tokens held by the top 100 accounts from the total supply of 117,911,818.18 token)

AnchorSwap Token Contract Interaction Details

Time Series: Token Contract Overview

Fri 13, Aug 2021 - Tue 19, Oct 2021

Token Contract 0x4aac18de824ec1b553dbf342829834e4ff3f7a9f (AnchorSwap Token)
Source: BscScan.com



AnchorSwap Token Top 10 Token Holders

| Rank | Address | Quantity (Token) | Percentage |
|------|--|-------------------------------|------------|
| 1 | 0x23f7f3119d1b5b6c94a232680e2925703c4ebbf5 | 78,952,635.970005206363057961 | 66.9591% |
| 2 | 0x4aac18de824ec1b553dbf342829834e4ff3f7a9f | 12,998,216.648820196892681239 | 11.0237% |
| 3 | PancakeSwap V2: ANCHOR-BUSD | 7,595,248.949564980352231141 | 6.4415% |
| 4 | PancakeSwap V2: ANCHOR 6 | 4,199,570.514037126355026442 | 3.5616% |
| 5 | Burn Address | 3,608,193.654393549223154783 | 3.0601% |
| 6 | 0x38f34a9dc5422c4125374a8eb2cde3c454539d64 | 944,494.68774560068767432 | 0.8010% |
| 7 | 0x47fb86b95be51053a683e5994a8109352ce745d5 | 766,342.59033111542152724 | 0.6499% |
| 8 | 0xf808f52181560509edfb6d6c6f90b89ef97423e | 541,359.47113973653636102 | 0.4591% |
| 9 | 0x4d02d75de72470f69d3f1e97535878f0803c924e | 500,313.820087579042212387 | 0.4243% |
| 10 | 0xe26eb5442b47e399573d59c0f3ba1136c2a09380 | 497,759.933322352882445752 | 0.4221% |



Contract functions details

- + [Int] IUniswapV2Factory
 - [Ext] feeTo
 - [Ext] feeToSetter
 - [Ext] getPair
 - [Ext] allPairs
 - [Ext] allPairsLength
 - [Ext] createPair #
 - [Ext] setFeeTo #
 - [Ext] setFeeToSetter #
- + [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] 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
- + [Int] IUniswapV2Router02 (IUniswapV2Router01)
 - [Ext] removeLiquidityETHSupportingFeeOnTransferTokens #
 - [Ext] removeLiquidityETHWithPermitSupportingFeeOnTransferTokens #
 - [Ext] swapExactTokensForTokensSupportingFeeOnTransferTokens #
 - [Ext] swapExactETHForTokensSupportingFeeOnTransferTokens (\$)
 - [Ext] swapExactTokensForETHSupportingFeeOnTransferTokens #
- + [Lib] Address
 - [Int] isContract
 - [Int] sendValue #
 - [Int] functionCall #
 - [Int] functionCall #
 - [Int] functionCallWithValue #
 - [Int] functionCallWithValue #
 - [Int] functionStaticCall
 - [Int] functionStaticCall
 - [Int] functionDelegateCall #
 - [Int] functionDelegateCall #
 - [Int] verifyCallResult
- + [Lib] SafeMath
 - [Int] tryAdd
 - [Int] trySub
 - [Int] tryMul
 - [Int] tryDiv
 - [Int] tryMod
 - [Int] add
 - [Int] sub
 - [Int] mul
 - [Int] div
 - [Int] mod
 - [Int] sub
 - [Int] div
 - [Int] mod
- + [Int] IBEP20
 - [Ext] totalSupply
 - [Ext] decimals
 - [Ext] symbol
 - [Ext] name
 - [Ext] getOwner
 - [Ext] balanceOf
 - [Ext] transfer #
 - [Ext] allowance
 - [Ext] approve #
 - [Ext] transferFrom #
- + Context
 - [Int] _msgSender
 - [Int] _msgData
- + Ownable (Context)
 - [Pub] <Constructor> #
 - [Pub] owner
 - [Pub] renounceOwnership #

- modifiers: onlyOwner
- [Pub] transferOwnership #
- modifiers: onlyOwner
- [Prv] _setOwner #
- + BEP20 (Context, IBEP20, Ownable)
- [Pub] <Constructor> #
- [Ext] getOwner
- [Pub] name
- [Pub] decimals
- [Pub] symbol
- [Pub] totalSupply
- [Pub] balanceOf
- [Pub] transfer #
- [Pub] allowance
- [Pub] approve #
- [Pub] transferFrom #
- [Pub] increaseAllowance #
- [Pub] decreaseAllowance #
- [Pub] mint #
- modifiers: onlyOwner
- [Int] _transfer #
- [Int] _mint #
- [Int] _burn #
- [Int] _approve #
- [Int] _burnFrom #
- + AnchorToken (BEP20)
- [Pub] <Constructor> #
- modifiers: BEP20
- [Pub] mint #
- modifiers: onlyOwner
- [Int] _transfer #
- modifiers: antiWhale
- [Prv] swapAndLiquify #
- modifiers: lockTheSwap,transferTaxFree
- [Prv] swapTokensForEth #
- [Prv] addLiquidity #
- [Pub] maxTransferAmount
- [Pub] isExcludedFromAntiWhale
- [Ext] <Fallback> (\$)
- [Pub] updateTransferTaxRate #
- modifiers: onlyOperator
- [Pub] updateBurnRate #
- modifiers: onlyOperator
- [Pub] updateMaxTransferAmountRate #
- modifiers: onlyOperator
- [Pub] updateMinAmountToLiquify #
- modifiers: onlyOperator
- [Pub] setExcludedFromAntiWhale #
- modifiers: onlyOperator
- [Pub] updateSwapAndLiquifyEnabled #
- modifiers: onlyOperator
- [Pub] updateAnchorSwapRouter #
- modifiers: onlyOperator
- [Pub] operator
- [Pub] transferOperator #

- modifiers: onlyOperator
 - [Ext] delegates
 - [Ext] delegate #
 - [Ext] delegateBySig #
 - [Ext] getCurrentVotes
 - [Ext] getPriorVotes
 - [Int] _delegate #
 - [Int] _moveDelegates #
 - [Int] _writeCheckpoint #
 - [Int] safe32
 - [Int] getChainId
- (\$) = 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

- Owner can mint any amount of tokens without any restrictions, before transferring ownership to the MasterChef.
- Operator can change the transfer tax rate.
- Operator can change the burn rate.
- Operator can change the max transfer amount rate.
- Operator can exclude and include in antiWhale.
- Operator can change the min amount to liquify.
- Operator can transfer operator's rights.
- Operator can change the router and pair contract addresses, which could be not audited contract

Conclusion

Smart contracts contain owner privileges. Audited only the token of the project.

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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