



SMART CONTRACT SECURITY AUDIT

VYA

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Website: soken.io

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Disclaimer

This is a comprehensive report based on our automated and manual examination of cybersecurity vulnerabilities and framework flaws. We took into consideration smart contract based algorithms, as well. Reading the full analysis report is essential to build your understanding of project's security level. It is crucial to take note, though we have done our best to perform this analysis and report, that you should not rely on the our research and cannot claim what it states or how we created it. Before making any judgments, you have to conduct your own independent research. We will discuss this in more depth in the following disclaimer - please read it fully.

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Security analysis is based only on the smart contracts. No applications or operations were reviewed for security. No product code has been reviewed.

Procedure

Our analysis contains following steps:

1. Project Analysis;
2. Manual analysis of smart contracts:
 - Deploying smart contracts on any of the network(Ropsten/Rinkeby) using Remix IDE
 - Hashes of all transaction will be recorded
 - Behaviour of functions and gas consumption is noted, as well.
3. Unit Testing:
 - Smart contract functions will be unit tested on multiple parameters and under multiple conditions to ensure that all paths of functions are functioning as intended.
 - In this phase intended behaviour of smart contract is verified.
 - In this phase, we would also ensure that smart contract functions are not consuming unnecessary gas.
 - Gas limits of functions will be verified in this stage.
4. Automated Testing:
 - Mythril
 - Oyente
 - Manticore
 - Solgraph

Terminology

We categorize the finding into 4 categories based on their vulnerability:

- Low-severity issue — less important, must be analyzed
- Medium-severity issue — important, needs to be analyzed and fixed
- High-severity issue — important, might cause vulnerabilities, must be analyzed and fixed
- Critical-severity issue — serious bug causes, must be analyzed and fixed.

Limitations

The security audit of Smart Contract cannot cover all vulnerabilities. Even if no vulnerabilities are detected in the audit, there is no guarantee that future smart contracts are safe. Smart contracts are in most cases safeguarded against specific sorts of attacks. In order to find as many flaws as possible, we carried out a comprehensive smart contract audit. Audit is a document that is not legally binding and guarantees nothing.

Token Contract Details for 18.12.2021

Contract Name: **VYA**

Deployed address: **0xAAaC7C0336ecb6c74cA4db60ABA3F7d64AcAAED3**

Total Supply: **21,000,000**

Token Tracker: **VYA**

Decimals: **18**

Token holders: **2,220**

Transactions count: **16,937**

Top 100 holders dominance: **96.57%**

Audit Details



Project Name: **VYA**

Language: **Solidity**

Compiler Version: **v0.6.12**

Blockchain: **BSC**

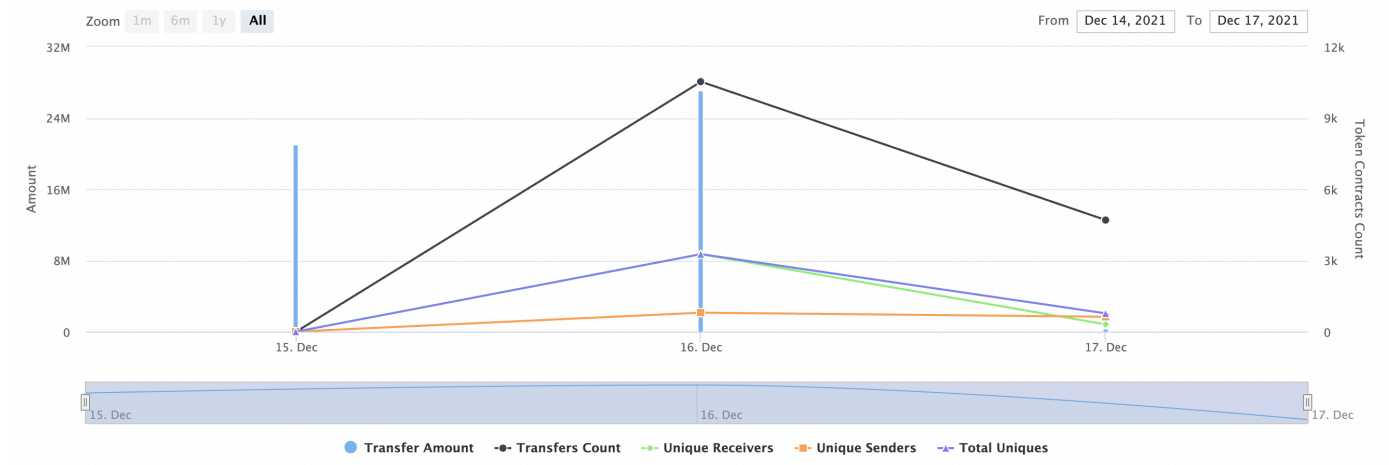
Social Profiles

Project Website: <http://26681676.s21i.faiusr.com/2/4/ABUIABACGAAg-LmbjQYonsPkjAYwuAg422Y.jpg>

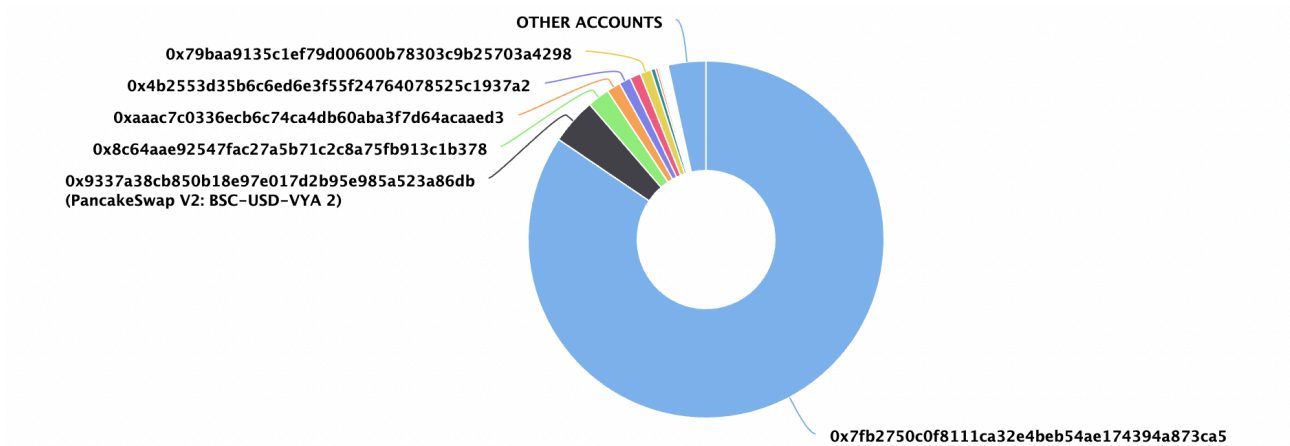
Project Twitter: https://twitter.com/vya_game?s=21

Project Telegram: <https://t.me/VYAGAME>



Token Contract Analytics



VYA Token Distribution



VYA Top Holders

Rank	Address	Quantity (Token)	Percentage
1	0x7fb2750c0f8111ca32e4beb54ae174394a873ca5	17,738,501.906986857875050674	84.4691%
2	 PancakeSwap V2: BSC-USD-VYA 2	881,780.152876631285545828	4.1990%
3	0x8c64aae92547fac27a5b71c2c8a75fb913c1b378	420,000	2.0000%
4	 0xaaac7c0336ecb6c74ca4db60aba3f7d64acaaed3	263,947.810265454958392524	1.2569%
5	0x4b2553d35b6c6ed6e3f55f24764078525c1937a2	220,000	1.0476%
6	0xa11c6cd487eca7bfa971ce80fdb6c45090b9b4f7	210,000	1.0000%
7	0x79baa9135c1ef79d00600b78303c9b25703a4298	210,000	1.0000%
8	Null Address: 0x000...dEaD	87,490.791575373686743991	0.4166%
9	0x9a44c96811eadf21ce0d53f70ac5607d922ed42f	46,697.580879147828243797	0.2224%
10	0x9aa418fe6975eba1d9042ec5a692bdaf91969ad6	39,355.301035	0.1874%

Swap Analysis

- ✓ Buy fee is less than 10% (5%)
- ✓ Sell fee is less than 10% (1.8%)
- ✓ Token is sellable (not a honeypot) at this time

Contract Analysis

- ✗ Verified contract source
- ✗ Ownership renounced or source does not contain an owner contract.

Holder Analysis

- ✓ Owner/creator wallet contains less than 5% of token supply (0%)
- ✗ All other holders possess less than 5% of token supply

Liquidity Analysis

- ✗ Adequate liquidity present (0.03 BNB)

Contract Function Details

- + [Int] IERC20.sol
 - [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
 - [Int] mod
 - [Int] mod
- + Context.sol
 - [Int] _msgSender
 - [Int] _msgData
- + [Lib] Address.sol
 - [Int] isContract
 - [Int] sendValue #
 - [Int] functionCall #
 - [Int] functionCall #
 - [Int] functionCallWithValue #
 - [Int] functionCallWithValue #
 - [Prv] _ functionCallWithValue #
- + Ownable is Context (Context)
 - [Pub] owner
 - [Pub] renounceOwnership
 - [Pub] transferOwnership
 - [Pub] lock
 - [Pub] unlock
- + [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 is IUniswapV2Router01
- [Ext] removeLiquidityETHSupportingFeeOnTransferTokens (\$)
- [Ext] removeLiquidityETHWithPermitSupportingFeeOnTransferTokens
- [Ext] swapExactTokensForTokensSupportingFeeOnTransferTokens
- [Ext] swapExactETHForTokensSupportingFeeOnTransferTokens
- [Ext] swapExactTokensForETHSupportingFeeOnTransferTokens

- + [Int] IFomo
- [Ext] transferNotify
- [Ext] swap

- + [Int] IWrap
- [Ext] withdraw

- + [Lib] TransferHelper
- [Int] safeApprove
- [Int] safeTransfer
- [Int] safeTransferFrom
- [Int] safeTransferETH

- + [Int] IPool
- [Ext] distributeReward

- + VYA is Context, IERC20, Ownable
- [Pub] setWrap
- [Pub] setMineStart
- [Pub] setRefRewardAddr
- [Pub] setMine
- [Pub] name
- [Pub] symbol
- [Pub] decimals
- [Pub] totalSupply
- [Pub] balanceOf
- [Pub] transfer

- [Pub] allowance
- [Pub] approve
- [Pub] transferFrom
- [Pub] increaseAllowance
- [Pub] decreaseAllowance
- [Pub] excludeFromFee
- [Pub] includeInFee
- [Pub] deliver
- [Prv] _getTValues
- [Ext] refRewardOf
- [Prv] getHealthFees
- [Prv] removeAllFee
- [Prv] restoreAllFee
- [Pub] isExcludedFromFee
- [Prv] _approve
- [Prv] _transfer
- [Prv] removeAllFee
- [Prv] restoreAllFee
- [Pub] isExcludedFromFee
- [Prv] _approve
- [Prv] _transfer
- [Ext] swapUsdtAndLiquify
- [Ext] getUsdtSwap
- [Prv] swapUsdtForTokens
- [Prv] addLiquidityUsdt
- [Ext] donateDust
- [Ext] donateEthDust
- [Prv] _tokenTransfer

Vulnerabilities checking

Issue Description	Checking Status
Compiler Errors	Completed
Delays in Data Delivery	Completed
Re-entrancy	Completed
Transaction-Ordering Dependence	Completed
Timestamp Dependence	Completed
Shadowing State Variables	Completed
DoS with Failed Call	Completed
DoS with Block Gas Limit	Completed
Outdated Compiler Version	Completed
Assert Violation	Completed
Use of Deprecated Solidity Functions	Completed
Integer Overflow and Underflow	Completed
Function Default Visibility	Completed
Malicious Event Log	Completed
Math Accuracy	Completed
Design Logic	Completed
Fallback Function Security	Completed
Cross-function Race Conditions	Completed
Safe Zeppelin Module	Completed

Security Issues

1) Volatile Code:

The return values of functions

swapExactTokensForETHSupportingFeeOnTransferTokens and *addLiquidityETH* are not properly handled.

Recommendation:

We recommend using variables to receive the return value of the functions mentioned above and handle both success and failure cases if needed by the business logic.

2) Ownership Privileges:

The contract contains ownership functionality and ownership is not renounced which allows the creator or current owner to modify contract behaviour (for example, disable selling or mint new tokens).

Conclusion

Low-severity issues exist within smart contracts. Smart contracts are free from any critical or high-severity issues.

NOTE: Please check the disclaimer above and note, that audit makes no statements or warranties on business model, investment attractiveness or code sustainability.

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