

Smart Contract Audit

FOR

ALT CRYPTO

DATED: 24 August 23'



AUDIT SUMMARY

Project name - ALT CRYPTO

Date: 24 August 2023

Scope of Audit- Audit Ace was consulted to conduct the smart contract audit of the solidity source codes.

Audit Status: Passed

Issues Found

Status	Critical	High	Medium	Low	Suggestion
Open	0	0	0	0	1
Acknowledged	0	0	0	0	0
Resolved	0	0	0	0	0



USED TOOLS

Tools:

1- Manual Review:

A line by line code review has been performed by audit ace team.

2- BSC Test Network: All tests were conducted on the BSC Test network, and each test has a corresponding transaction attached to it. These tests can be found in the "Functional Tests" section of the report.

3-Slither:

The code has undergone static analysis using Slither.

Testnet version:

The tests were performed using the contract deployed on the BSC Testnet, which can be found at the following address:

https://testnet.bscscan.com/address/0x30cCd4CeD5bb 60e6CA065D17e8A315EEa0e5E574



Token Information

Token Address:

0xfe863344c2dfBF624A99D7151C889729A5864846

Name: ALT CRYPTO

Symbol: ALTC

Decimals: 18

Netowrk: BSC

Token Type: BEP20

Owner: 0xB0F969d7B93Cc11B9a479F094C058889a3B8b94F

(at time of writing the audit)

Deployer:

0xB0F969d7B93Cc11B9a479F094C058889a3B8b94F

Token Supply: 10,000,000,000

Checksum:

fa17c9f5736affaf74cb2b9343cf49e4888f335b

Testnet version:

The tests were performed using the contract deployed on the BSC Testnet, which can be found at the following address: https://testnet.bscscan.com/address/0x30cCd4CeD5bb60e6CA065D17e8A315EEa0e5E574



TOKEN OVERVIEW

buy fee: 0%	
Sell fee: 2%	
transfer fee: 0%	
Fee Privilege: Static fees	
Ownership: Owned	
Minting: None	
Max Tx: No	
WIGX IX. NO	
Blacklist: No	
Other Privileges:	
- Initial distribution of the tokens	



AUDIT METHODOLOGY

The auditing process will follow a routine as special considerations by Auditace:

- Review of the specifications, sources, and instructions provided to Auditace to make sure the contract logic meets the intentions of the client without exposing the user's funds to risk.
- Manual review of the entire codebase by our experts, which is the process of reading source code line-byline in an attempt to identify potential vulnerabilities.
- Specification comparison is the process of checking whether the code does what the specifications, sources, and instructions provided to Auditace describe.
- Test coverage analysis determines whether the test cases are covering the code and how much code isexercised when we run the test cases.
- Symbolic execution is analysing a program to determine what inputs cause each part of a program to execute.
- Reviewing the codebase to improve maintainability, security, and control based on the established industry and academic practices.



VULNERABILITY CHECKLIST





CLASSIFICATION OF RISK

Severity

- Critical
- High-Risk
- Medium-Risk
- Low-Risk
- Gas Optimization/Suggestion

Description

These vulnerabilities could be exploited easily and can lead to asset loss, data loss, asset, or data manipulation. They should be fixed right away.

A vulnerability that affects the desired outcome when using a contract, or provides the opportunity to use a contract in an unintended way.

A vulnerability that could affect the desired outcome of executing the contract in a specific scenario.

A vulnerability that does not have a significant impact on possible scenarios for the use of the contract and is probably subjective.

A vulnerability that has an informational character but is not affecting any of the code.

Findings

Severity	Found
♦ Critical	0
♦ High-Risk	0
♦ Medium-Risk	0
♦ Low-Risk	0
Gas Optimization /Suggestions	1



INHERITANCE TREE





POINTS TO NOTE

- Owner is able to change fees in range 0-100% for buy/sell/transfer fees
- Owner is not able to blacklist an arbitrary address.
- Owner is not able to disable trades
- Owner is not able to limit buy/sell/transfer/wallet amounts
- Owner is not able to mint new tokens



ALTCRYPTO._name (contracts/Token.sol#882) should be constant ALTCRYPTO._symbol (contracts/Token.sol#883) should be constant ALTCRYPTO._tTotal (contracts/Token.sol#871) should be constant

Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#state-variables-that-could-be-declared-constant INFO:Slither:./contracts/Token.sol analyzed (10 contracts with 88 detectors), 73 result(s) found

STATIC ANALYSIS

Parameter AICROFFO, CalculateMore(equint250)__manner (contracts/foles.no.19127); is not in mixedCase
Parameter AICROFFO, acticulateMore(equint250)__more(contracts/foles.no.19127); is not in mixedCase
Parameter AICROFFO, withdrandomore(exposer).

**Recommendation of the Contracts/foles.no.191270; is not in mixedCase
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Variable AICROFFO, marriar (contracts/foles.no.191280); interesting Contracts/foles.no.191280; interesting Contracts/foles.

Result => A static analysis of contract's source code has been performed using slither,

No major issues were found in the output



```
| | Contract | Type | Bases |
| **Function Name** | **Visibility** | **Mutability** | **Modifiers** |
111111
| **| IERC 20 ** | Interface | | | | |
| LotalSupply | External | | NO | |
| - | transfer | External | | | NO | |
| Lallowance | External ! | NO! |
📙 🗀 | approve | External 🕺 | 🧶 |NO 📗
| └ | transferFrom | External ! | ● |NO! |
111111
111111
| **Context** | Implementation | |||
| L |_{msgSender} | Internal | L |_{msgSender} |
111111
| **Address** | Library | | | |
| \ | is Contract | Internal | \ | \ |
| └ | sendValue | Internal 🔒 | ● | |
| - | functionCall | Internal - | - | |
| └ | functionCall | Internal 🔒 | ● | |
| └ | functionCallWithValue | Internal 🔒 | ● | |
```



```
| | | functionCallWithValue | Internal | | | | | |
| LanctionCallWithValue | Private 🔐 | 🛑 | |
HIIIII
**Ownable** | Implementation | Context |
| | owner | Public | | NO ! |
transferOwnership | Public ! | • | onlyOwner |
111111
**IUniswapV2Factory** | Interface | |||
| | | allPairs | External | | | NO | |
| LallPairsLength | External ! | NO! |
| └ | createPair | External ! | ● |NO! |
| └ | setFeeToSetter | External ! | ● |NO! |
1111111
| **IUniswapV2Pair** | Interface | | | | | | |
| | | name | External | | | NO | |
| - | decimals | External | | NO | |
| L | totalSupply | External | | NO | |
| Lallowance | External ! | NO! |
| └ | transferFrom | External ! | ● |NO! |
| └ | PERMIT_TYPEHASH | External ! | NO! |
```



```
| - | factory | External ! | NO! |
| L | token0 | External ! | NO! |
getReserves | External ! | NO! |
priceOCumulativeLast | External ! | NO! |
price1CumulativeLast | External ! | NO! |
| - | burn | External | | | | NO | |
| - | swap | External ! | • | NO! |
| └ | initialize | External ! | ● |NO! |
HIIIII
| **IUniswapV2Router01** | Interface | | | | | | |
| └ | addLiquidity | External ! | ● |NO! |
| └ | addLiquidityETH | External ! | 111 | NO! |
| └ | removeLiquidityETH | External ! | ● |NO! |
| | swapExactTokensForTokens | External | | | | NO | |
| └ | swapTokensForExactTokens | External ! | ● | NO! |
| | swapExactETHForTokens | External | | | NO | |
| - | swapETHForExactTokens | External | | 1 NO | |
| L | getAmountOut | External | | NO | |
| L | getAmountin | External | | NO | |
| L | getAmountsOut | External ! | NO! |
| └ | getAmountsIn | External ! | |NO! |
```



```
**IUniswapV2Router02** | Interface | IUniswapV2Router01 |||
| | swapExactTokensForTokensSupportingFeeOnTransferTokens | External ! | | NO! |
| | swapExactETHForTokensSupportingFeeOnTransferTokens | External ! | 💵 | NO ! |
| - | swapExactTokensForETHSupportingFeeOnTransferTokens | External ! | • | NO! |
**ALTCRYPTO** | Implementation | Context, IERC20, Ownable |
| └ | <Constructor> | Public ! | ● |NO! | | | |
| | | name | Public | | | NO | |
| L | totalSupply | Public ! | NO! |
| L | allowance | Public | | NO | |
| └ | transferFrom | Public ! | ● |NO! |
| └ | increaseAllowance | Public ! | ● |NO! |
| └ | decreaseAllowance | Public ! | ● |NO! |
| L | isExcludedFromReward | Public | | NO | |
| - | totalFees | Public | | | NO | |
| L | tokenFromReflection | Public ! | NO! |
| | updateMarketingWallet | External | | | | onlyOwner |
| - | excludeFromReward | Public ! | • | onlyOwner |
| - | includeInReward | External | | • | onlyOwner |
| └ | excludeFromFee | Public ! | ● | onlyOwner |
| - | includeInFee | Public ! | • | onlyOwner |
| └ | setSellFee | External ! | ● | onlyOwner |
| └ | <Receive Ether> | External ! | ■ | NO! |
```



```
| - | reflectFee | Private 🔐 | 🛑 | |
| - | getTValues | Private 🔐 | | |
| - | getRate | Private 🔐 | | |
| LagetCurrentSupply | Private 🔐 | | |
| - | _takeMarketing | Private 🔐 | 🛑 | |
| - | _takeBurnFee | Private 🔐 | 🛑 | |
📙 📙 _takeRnDFee | Private 🔐 | 🛑 | |
| CalculatetaxReflectionFee | Private 🔐 | | |
📙 | calculateMarketingFee | Private 🔐 | | |
| - | calculateBurnFee | Private 🔐 | | |
| - | removeAllFee | Private 🔐 | 🌑 | |
| L | isExcludedFromFee | Public ! | NO! |
| - | _approve | Private 🔐 | 🌑 | |
| Lactransfer | Private 🔐 | 🌑 | |
| L | swapTokensForEth | Private 🔐 | 🧶 | |
| LackenTransfer | Private 🔐 | 🛑 | |
| - | _transferStandard | Private 🔐 | 🌑 | |
| - | _transferToExcluded | Private 🔐 | 🛑 | |
| - | _transferFromExcluded | Private 🔐 | 🛑 | |
| L | _transferBothExcluded | Private 🔐 | 🛑 | |
| └ | withdrawETH | Public ! | ● | onlyOwner |
| └ | withdrawToken | Public ! | ● | onlyOwner |
### Legend
|Symbol | Meaning|
|:-----|
| • | Function can modify state |
| 💵 | Function is payable |
```



FUNCTIONAL TESTING

1- Adding liquidity (passed):

https://testnet.bscscan.com/tx/0xd94a8ddb596b8046ec0f1b87e0e4c1c35 a3e744bb75979244ed84df70ba6eb72

2- Buying when excluded from fees (0% tax) (passed):

https://testnet.bscscan.com/tx/0xdf05bb62adfdc89defd4f1745af83e52c5 9ee28cffa3a5e8fdc8b739f3fdc061

3- Selling when excluded from fees (0% tax) (passed):

https://testnet.bscscan.com/tx/0xf0468501fdb9d0b7349a7016e6ec7ad22 acb3e95fa0d35b0b093fbe028bed810

4- Transferring when excluded from fees (0% tax) (passed):

https://testnet.bscscan.com/tx/0xf636cf59f4dc1fc11fee0813983398a3db 60d878baa7861a28aa6bc95742b14e

5- Buying from a regular wallet (0-100% tax) (passed):

https://testnet.bscscan.com/tx/0xaa5ca72580c8ef03ef501528bbf9bdb8e 1869b8e95ba0384c929ae45aaf2af5a

6- Selling from a regular wallet (0-100% tax) (passed):

https://testnet.bscscan.com/tx/0xb1f189b66cbbbbdf9e61bf497c83566fed cdef224c6ad737b1125b4d349f48f8

7- Transferring from a regular wallet (0-100% tax) (passed):

https://testnet.bscscan.com/tx/0x16594a350bee67b71a595560ab8fcb60cea3897385fa05cb98e7b21f8ae87148



MANUAL TESTING

Missing logic - Lack of event emission

Severity: Informational

function: _takeMarketing - _takeBurnFee - _takeRnDFee

Status: Open

Overview:

Blockchain explorers may not show holders correctly because contract is not emitting "Transfer" events when taking fee (marketing, burn, RnD).

Suggestion

```
Emit events from this function after taking fees:
Sample code:
function _takeRnDFee(address from, uint256 tRnD) private {
  uint256 currentRate = _getRate();
  uint256 rRnD = tRnD.mul(currentRate);
  _rOwned[_RnDTax] = _rOwned[_RnDTax].add(rRnD);
  if (_isExcluded[_RnDTax]) _tOwned[_RnDTax] = _tOwned[_RnDTax].add(tRnD);
       emit Transfer(from, _RnDTax, tRnD);
  }
```



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