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AUDIT COMPANY

Smart Contract Security Audit

TechRate

September, 2021

Audit Details

Audited project

India Coin

Deployer address

0xcc8f0b47cf0e2d5428edae93d968ea927de626a2

Client contacts:

India Coin team

Blockchain

Binance Smart Chain

Project website:

https://indiacoin.world/

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 India Coin to perform an audit of smart contracts:
https://bscscan.com/address/0x4d8c829c02585aa62d2bbaf562099bf749637580#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

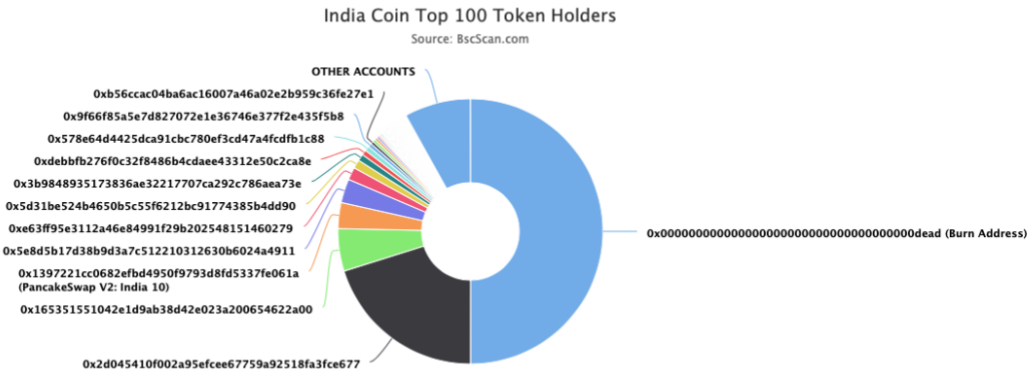
Token contract details for 02.09.2021

Contract name	India Coin
Contract address	0x4D8C829c02585AA62D2bBAF562099bF749637580
Total supply	10,000,000,000,000
Token ticker	India
Decimals	18
Token holders	4,220
Transactions count	9,948
Top 100 holders dominance	91.91%
Liquidity fee	7
Tax fee	6
Total fees	51180045164610587813102091753 3
Uniswap V2 pair	0x1397221cc0682efbd4950f9793d8fd5337fe061a
Contract deployer address	0xcc8f0b47cf0e2d5428edae93d968ea927de626a2
Contract’s current owner address	0x0000000000000000000000000000000000000000

India Coin Token Distribution

The top 100 holders collectively own 91.91% (9,191,249,764,407.65 Tokens) of India Coin

Token Total Supply: 10,000,000,000,000.00 Token | Total Token Holders: 4,221



(A total of 9,191,249,764,407.65 tokens held by the top 100 accounts from the total supply of 10,000,000,000,000.00 token)

India Coin Contract Interaction Details

Time Series: Token Contract Overview

Tue 17, Aug 2021 - Tue 31, Aug 2021

India Coin Top 10 Token Holders

Rank	Address	Quantity (Token)	Percentage
1	Burn Address	5,000,000,000,000	50.0000%
2	0x2d045410f002a95efcee67759a92518fa3fce677	2,017,248,176,641.9866	20.1725%
3	0x165351551042e1d9ab38d42e023a200654622a00	516,960,614,490.754241165485210813	5.1696%
4	PancakeSwap V2: India 10	316,717,750,493.227432921912497452	3.1672%
5	0x5e8d5b17d38b9d3a7c512210312630b6024a4911	291,259,953,671.791666954174313775	2.9126%
6	0xe63ff95e3112a46e84991f29b202548151460279	154,402,166,778.440782300122127428	1.5440%
7	0x5d31be524b4650b5c55f6212bc91774385b4dd90	105,109,169,689.502888290871520306	1.0511%
8	0x3b9848935173836ae32217707ca292c786aea73e	81,859,966,280.992389856177509161	0.8186%
9	0xdebbfb276f0c32f8486b4cdaee43312e50c2ca8e	62,322,952,524.817898232612833268	0.6232%
10	0x578e64d4425dca91cbc780ef3cd47a4fcdfb1c88	60,617,442,766.963687944258334459	0.6062%

India Coin LP Token Holders

Rank	Address	Quantity	Percentage
1	0x8655e5c4d701186d16765d1cdcef6d5287e4679a	3,535,533.905932737622003221	56.9016%
2	Burn Address	2,665,814.97838418766845395	42.9041%
3	0xdebbfb276f0c32f8486b4cdaee43312e50c2ca8e	8,962.014584419391703948	0.1442%
4	0x8cc7bc33f5188b1fb683bedc4dbffa77b136833b	2,890.773813660874602265	0.0465%
5	0x16c52e10e53d4594aaa4c97c26bb2fbbbe621fa0	218.068397065337523504	0.0035%
6	0x2058374983bf7e26581fd3f1a714307602f87476	0.130319122451380158	0.0000%
7	0x0000000000000000000000000000000000000000	0.000000000000001	0.0000%

Contract functions details

+ [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
  - [Int] mod
  - [Int] mod

+ Context
  - [Int] _msgSender
  - [Int] _msgData

+ [Lib] Address
  - [Int] isContract
  - [Int] sendValue #
  - [Int] functionCall #
  - [Int] functionCall #
  - [Int] functionCallWithValue #
  - [Int] functionCallWithValue #
  - [Prv] _functionCallWithValue #

+ Ownable (Context)
  - [Int] <Constructor> #
  - [Pub] owner
  - [Pub] renounceOwnership #
    - modifiers: onlyOwner
  - [Pub] transferOwnership #
    - modifiers: onlyOwner
  - [Pub] geUnlockTime
  - [Pub] lock #
    - modifiers: onlyOwner
  - [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 (IUniswapV2Router01)
  - [Ext] removeLiquidityETHSupportingFeeOnTransferTokens #
  - [Ext] removeLiquidityETHWithPermitSupportingFeeOnTransferTokens #

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

+ LiquidityGeneratorToken (Context, IERC20, Ownable)
- [Pub] <Constructor> #
- [Pub] name
- [Pub] symbol
- [Pub] decimals
- [Pub] totalSupply
- [Pub] balanceOf
- [Pub] transfer #
- [Pub] allowance
- [Pub] approve #
- [Pub] transferFrom #
- [Pub] increaseAllowance #
- [Pub] decreaseAllowance #
- [Pub] isExcludedFromReward
- [Pub] totalFees
- [Pub] deliver #
- [Pub] reflectionFromToken
- [Pub] tokenFromReflection
- [Prv] _transferBothExcluded #
- [Pub] excludeFromFee #
  - modifiers: onlyOwner
- [Pub] includeInFee #
  - modifiers: onlyOwner
- [Ext] setTaxFeePercent #
  - modifiers: onlyOwner
- [Ext] setLiquidityFeePercent #
  - modifiers: onlyOwner
- [Ext] setMaxTxPercent #
  - modifiers: onlyOwner
- [Pub] setSwapAndLiquifyEnabled #
  - modifiers: onlyOwner
- [Ext] <Fallback> ($)
- [Prv] _reflectFee #
- [Prv] _getValues
- [Prv] _getTValues
- [Prv] _getRValues
- [Prv] _getRate
- [Prv] _getCurrentSupply
- [Prv] _takeLiquidity #
- [Prv] calculateTaxFee
- [Prv] calculateLiquidityFee
- [Prv] removeAllFee #
- [Prv] restoreAllFee #
- [Pub] isExcludedFromFee
- [Prv] _approve #
- [Prv] _transfer #
- [Prv] swapAndLiquify #
  - modifiers: lockTheSwap
- [Prv] swapTokensForEth #
- [Prv] addLiquidity #
- [Prv] _tokenTransfer #

- [Prv] _transferStandard #
- [Prv] _transferToExcluded #
- [Prv] _transferFromExcluded #
- [Pub] disableFees #
  - modifiers: onlyOwner
- [Pub] enableFees #
  - 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 change the tax and liquidity fee.

```
function setTaxFeePercent(uint256 taxFee) external onlyOwner() {
    _taxFee = taxFee;
}

function setLiquidityFeePercent(uint256 liquidityFee) external onlyOwner() {
    _liquidityFee = liquidityFee;
}
```

- Owner can change the maximum transaction amount.

```
function setMaxTxPercent(uint256 maxTxPercent) external onlyOwner() {
    _maxTxAmount = _tTotal.mul(maxTxPercent).div(
        10**2
    );
}
```

- Owner can exclude from the fee.

```
function excludeFromFee(address account) public onlyOwner {
    _isExcludedFromFee[account] = true;
}
```

- Owner can disable and enable fees.

```
ftrace | funcSig
function disableFees() public onlyOwner {
    prevLiqFee = _liquidityFee;
    prevTaxFee = _taxFee;

    _maxTxAmount = _tTotal;
    _liquidityFee = 0;
    _taxFee = 0;
    swapAndLiquifyEnabled = false;
}

ftrace | funcSig
function enableFees() public onlyOwner {
    _maxTxAmount = _tTotal;
    _liquidityFee = prevLiqFee;
    _taxFee = prevTaxFee;
    swapAndLiquifyEnabled = true;
}
```

- Owner can lock and unlock. By the way, using these functions the owner could leave as owner even after the ownership was renounced.

```
//Locks the contract for owner for the amount of time provided
function lock(uint256 time) public virtual onlyOwner {
    _previousOwner = _owner;
    _owner = address(0);
    _lockTime = now + time;
    emit OwnershipTransferred(_owner, address(0));
}

//Unlocks the contract for owner when _lockTime is exceeds
function unlock() public virtual {
    require(_previousOwner == msg.sender, "You don't have permission to unlock");
    require(now > _lockTime , "Contract is locked until 7 days");
    emit OwnershipTransferred(_owner, _previousOwner);
    _owner = _previousOwner;
}
```

Conclusion

Smart contracts contain low severity issues! Liquidity pair contract's security is not checked due to out of scope.

Liquidity locking details provided by the team:
https://dxsale.app/app/v2_9/dxlockview?id=0&add=0x165351551042e1D9AB38D42E023A200654622a00&type=lplock&chain=BSC

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.