Smart Contract Security Audit

Audit details:

Audited project:	KOALA TOKEN
Deployer address:	0xb9659d3037b88dc35ed578eefbbb7c9708189a3b
Client contacts:	KOALA TOKEN team
Blockchain:	Binance Smart Chain
Project website:	https://moonkoala.finance

May, 2021
TechRate

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 KOALA TOKEN to perform an audit of smart contracts:

- *https://www.bscscan.com/address/0x2a0f5257f4bfe6c75cd58a14a0e7c4651e2160de#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

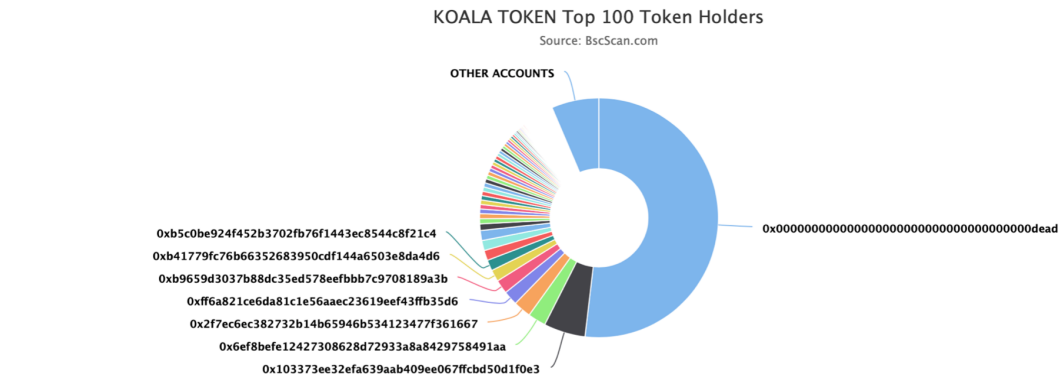
Token contract details for 05.05.2021.

Contract name:	KOALA TOKEN
Contract address:	0x2a0f5257f4bfe6c75cd58a14a0e7c4651e2160de
Total supply:	788_852_258_752_775_552
Token ticker:	MKOALA
Decimals:	0
Token holders:	1243
Transactions count:	6725
Top 100 holders dominance:	93.57 %
Compiler version:	v0.5.17+commit.d19bba13
Contract deployer address:	0xb9659d3037b88dc35ed578eefbbb7c9708189a3b
Contract’s current owner address:	No owner

KOALA TOKEN token distribution

The top 100 holders collectively own 93.57%
(738,115,268,300,809,000.00 Tokens) of KOALA TOKEN

Token Total Supply: 788,857,724,188,427,000.00 Token | Total Token Holders: 1,243



(A total of 738,115,268,300,809,000.00 tokens held by the top 100 accounts from the total supply of 788,857,724,188,427,000.00 token)

KOALA TOKEN top 10 token holders

Rank	Address	Quantity (Token)	Percentage
1	0x000000000000000000000000000000000000dead	409,310,101,313,464,000	51.8864%
2	0x103373ee32efa639aab409ee067ffcbd50d1f0e3	44,424,288,588,071,000	5.6315%
3	0x6ef8befe12427308628d72933a8a8429758491aa	19,222,020,810,207,700	2.4367%
4	0x2f7ec6ec382732b14b65946b534123477f361667	18,877,998,985,572,400	2.3931%
5	0xff6a821ce6da81c1e56aaec23619eef43ffb35d6	15,408,466,738,101,200	1.9533%
6	0xb9659d3037b88dc35ed578eefbbb7c9708189a3b	14,833,052,769,419,700	1.8803%
7	0xb41779fc76b66352683950cdf144a6503e8da4d6	12,529,387,440,997,800	1.5883%
8	0xb5c0be924f452b3702fb76f1443ec8544c8f21c4	11,513,236,189,621,700	1.4595%
9	0xf1d750d3900729278d20af8d7a05f19c76d53dd1	10,766,463,108,896,300	1.3648%
10	0x253d9dabe1c6037055db41056959b7152bb19188	10,721,058,394,793,400	1.3591%

Contract functions details

+ [Int] IERC20
  - [Ext] totalSupply
  - [Ext] balanceOf
  - [Ext] allowance
  - [Ext] transfer #
  - [Ext] approve #
  - [Ext] transferFrom #

+ [Lib] SafeMath
  - [Int] mul
  - [Int] div
  - [Int] sub
  - [Int] add
  - [Int] ceil

+ ERC20Detailed (IERC20)
  - [Pub] <Constructor> #
  - [Pub] name
  - [Pub] symbol
  - [Pub] decimals

+ MKOALA (ERC20Detailed)
  - [Pub] <Constructor> ($)
    - modifiers: ERC20Detailed
  - [Pub] totalSupply
  - [Pub] balanceOf
  - [Pub] allowance
  - [Pub] findOnePercent
  - [Pub] transfer #
  - [Pub] multiTransfer #
  - [Pub] approve #
  - [Pub] transferFrom #
  - [Pub] increaseAllowance #
  - [Pub] decreaseAllowance #
  - [Int] _mint #
  - [Ext] burn #
  - [Int] _burn #
  - [Ext] burnFrom #

($) = 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

1. No equal arrays

Issue:

There is a possibility that receivers and amounts arrays will have different sizes in the multiTransfer function.

Recommendation:

Please check that arrays sizes are equal.

Conclusion

Smart contracts contain low severity issues.

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.