TechRate

Blockchain solutions and consulting

Smart Contract Security Audit

Audit details:

Audited project: MisoSwap Token

Deployer address: 0x7493fdA25352CAd2b8AD883A75dA519CdA46836a

Client contacts: MisoSwap Token team

Blockchain: Binance Smart Chain

Project website: https://misoswap.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 MisoSwap Token to perform an audit of smart contracts:

- *https://bscscan.com/address/0xE87e500AB4939E08ae9c9cd2F2815D7FE877 df25*

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.
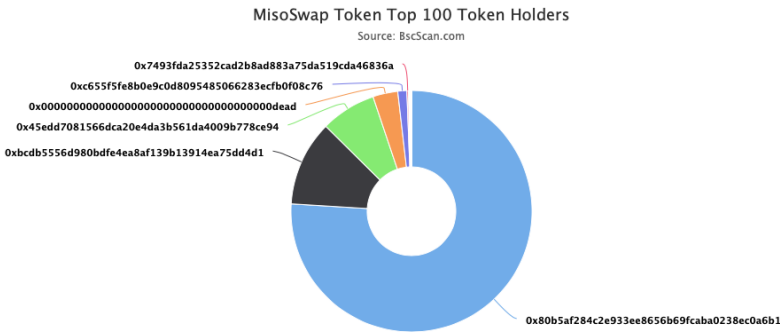
Contracts details

Token contract details for 24.05.2021.

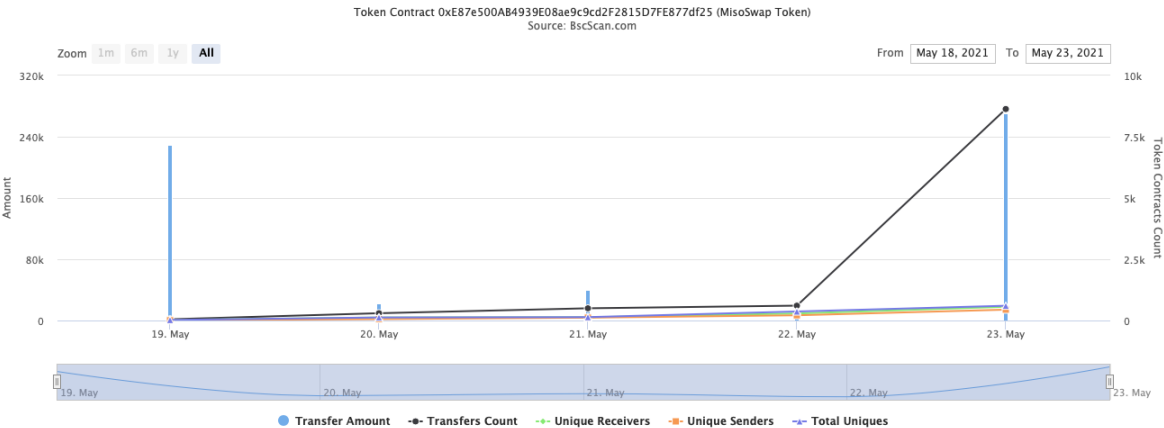|	
Contract name:	MisoSwap Token
Contract address:	0xE87e500AB4939E08ae9c9cd2F2815D7FE877df25
Total supply:	209134228094295610373846
Token ticker:	MISO
Decimals:	18
Token holders:	391
Transactions count:	13,742
Top 100 holders dominance:	100.00%
Contract deployer address:	0x7493fdA25352CAd2b8AD883A75dA519CdA46836a
Contract's current owner address:	0x80b5af284c2e933ee8656b69fcaba0238ec0a6b1

MisoSwap Token token distribution

MisoSwap Token Top 100 Token Holders
Source: BscScan.com

0x7493fda25352cad2b8ad883a75da519cda46836a
0xc655f5fe8b0e9c0d8095485066283ecfb0f08c76
0x000000000000000000000000000000000000dead
0x45edd7081566dca20e4da3b561da4009b778ce94
0xbcdb5556d980bdfe4ea8af139b13914ea75dd4d1

0x80b5af284c2e933ee8656b69fcaba0238ec0a6b1

(A total of 209,145.46 tokens held by the top 100 accounts from the total supply of 209,145.46 token)

MisoSwap Token contract interaction details

Time Series: Token Contract Overview   Wed 19, May 2021 - Sun 23, May 2021

Token Contract 0xE87e500AB4939E08ae9c9cd2F2815D7FE877df25 (MisoSwap Token)
Source: BscScan.com

Zoom 1m 6m 1y All   From May 18, 2021 To May 23, 2021

● Transfer Amount ● Transfers Count ● Unique Receivers ● Unique Senders ● Total Uniques

MisoSwap Token top 10 token holders

Rank	Address	Quantity (Token)	Percentage
1	📄 0x80b5af284c2e933ee8656b69fcaba0238ec0a6b1	158,889.104637991449821631	75.9706%
2	📄 0xbcdb5556d980bdfe4ea8af139b13914ea75dd4d1	23,950.813044432919707614	11.4517%
3	📄 0x45edd7081566dca20e4da3b561da4009b778ce94	15,507.801663088686261436	7.4148%
4	0x000000000000000000000000000000000000dead	7,000	3.3470%
5	0xc655f5fe8b0e9c0d8095485066283ecfb0f08c76	2,513.223830622618350029	1.2017%
6	0x7493fda25352cad2b8ad883a75da519cda46836a	453.191552241594557417	0.2167%
7	0x2964ebd7bf83bc9278f51363bc60fab3130c5ff2	264.628684619022855525	0.1265%
8	0x138e95db68f84bd2b328e1995ecfbe4066036042	76.017287402513022966	0.0363%
9	0x2b379c0473aac9457d14dea8c05f6516d8a233ce	72.935721854988490017	0.0349%
10	0x249dab6ec8618e489cb84df8fe44fad99ddebbf4	63.109848236576147034	0.0302%

Contract functions details

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

+ Ownable (Context)
- [Int] <Constructor> **#**
- **[Pub]** owner
- **[Pub]** renounceOwnership **#**
  - modifiers: onlyOwner
- **[Pub]** transferOwnership **#**
  - modifiers: onlyOwner

+ [Int] IBEP20
- **[Ext]** totalSupply
- **[Ext]** decimals
- **[Ext]** symbol
- **[Ext]** name
- **[Ext]** getOwner
- **[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

+ BEP20 (Context, IBEP20, Ownable)
- **[Pub]** <Constructor> **#**
- **[Ext]** getOwner
- **[Pub]** name
- **[Pub]** symbol
- **[Pub]** decimals
- **[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 **#**

+ MisoSwapToken (BEP20)
- **[Pub]** mint **#**
  - modifiers: onlyOwner
- **[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 (In the period when the owner is not renounced)

❏ Owner can mint before sending ownership to MasterChef

```
function mint(address _to, uint256 _amount) public onlyOwner {
    _mint(_to, _amount);
    _moveDelegates(address(0), _delegates[_to], _amount);
}
```

Conclusion

Smart contracts contain owner privileges.

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.