



Smart Contract Security Audit Report

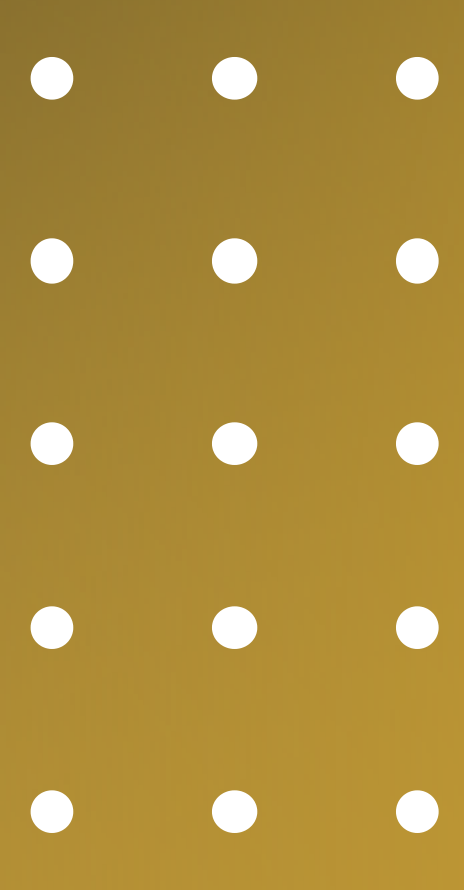
CRIR MSH

February 2023

Security Status



www.hacksafe.io



Audit Details



Audited project

CRIR MSH



Deployer address

0xd395b42b33256b9ce4ae3d57a3104839a7daf729



Client contacts

CRIR MSH Team



Blockchain

Binance smart chain



Website

<https://www.crimsh.com/>

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.

Procedure

Step 1 - In-Depth Manual Review

Manual line-by-line code reviews to ensure the logic behind each function is sound and safe from various attack vectors. This is the most important and lengthy portion of the audit process (as automated tools often cannot find the nuances that lead to exploits such as flash loan attacks).

Step 2 - Automated Testing

Simulation of a variety of interactions with your Smart Contract on a test blockchain leveraging a combination of automated test tools and manual testing to determine if any security vulnerabilities exist.

Step 3 – Leadership Review

The engineers assigned to the audit will schedule meetings with our leadership team to review the contracts, any comments or findings, and ask questions to further apply adversarial thinking to discuss less common attack vectors.

Step 4 - Resolution of Issues

Consulting with the team to provide our recommendations to ensure the code's security and optimize its gas efficiency, if possible. We assist project team's in resolving any outstanding issues or implementing our recommendations.

Step 5 - Published Audit Report

Boiling down results and findings into an easy-to-read report tailored to the project. Our audit reports highlight resolved issues and any risks that exist to the project or its users, along with any remaining suggested remediation measures. Diagrams are included at the end of each report to help users understand the interactions which occur within the project.

Background

HackSafe was commissioned by CRIR MSH to perform an audit of smart contracts:

- <https://bscscan.com/token/0xEae2BBBC0000F605bD37A02c7fE346a3b68B03eb#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 understood 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.

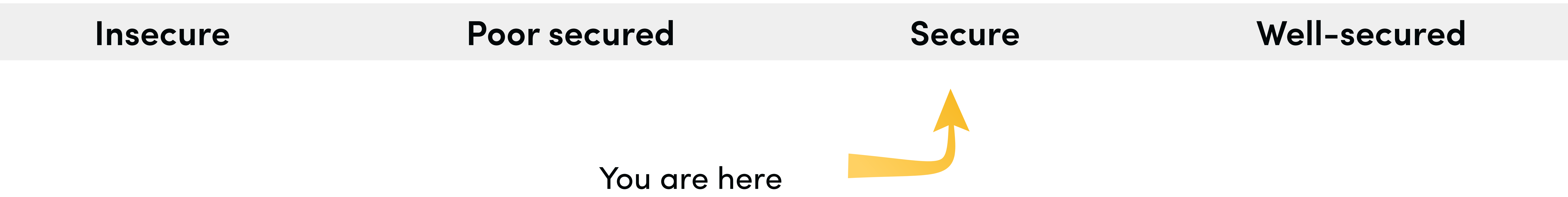
Contract Details

Token contract details for 09.02.2023

Token Type	: DEX
Contract name	: BEP20Token
Contract address	: 0xEae2BBBC0000F605bD37A02c7fE346a3b68B03eb
Total supply	: 300,000,000
Token ticker	: MSH
Decimals	: 18
Token Holders	: 7,602
Transactions count	: 79,036
Compiler version	: v0.5.16+commit.9c3226ce
Contract deployer address	: 0xd395b42b33256b9ce4ae3d57a3104839a7daf729
Owner address	: 0xd395b42b33256b9ce4ae3d57a3104839a7daf729

Audit Summary

According to the standard audit assessment, Customer`s solidity smart contracts are **“Secure”**. This token contract does contain owner control as ownership has not been renounced, which do not make it fully decentralized.



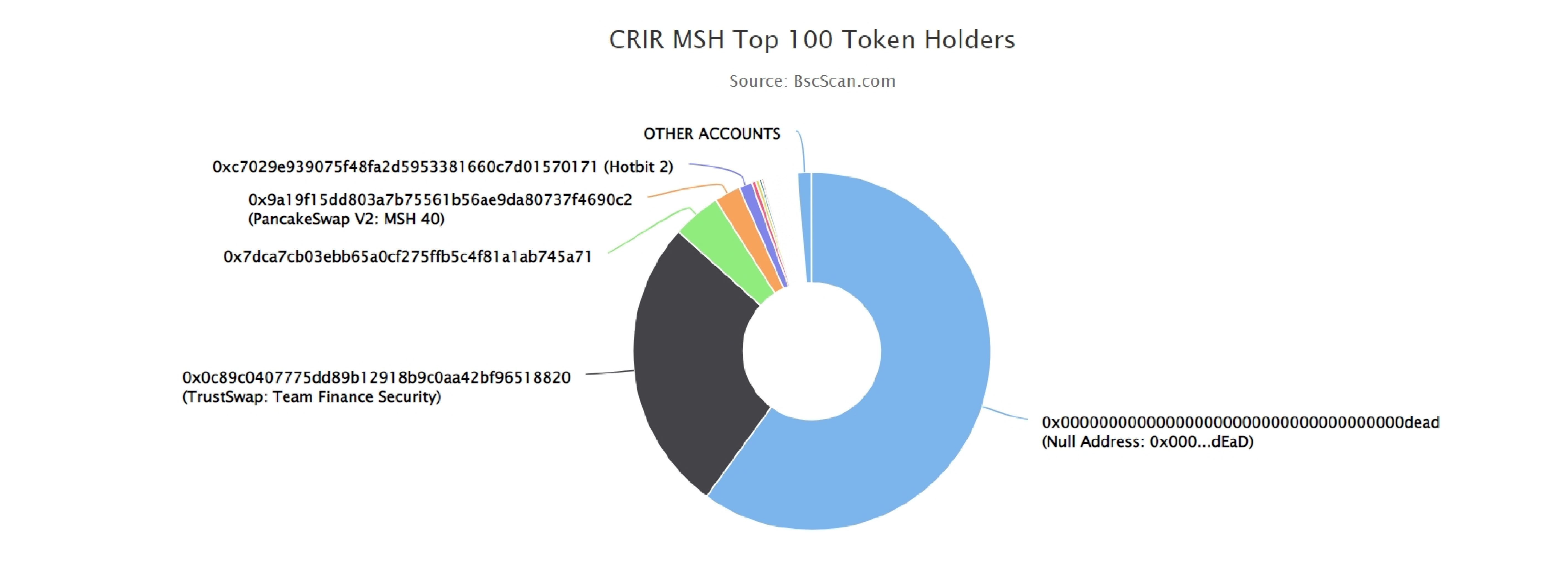
We used various tools like Slither, Mythril and Remix IDE. At the same time this finding is based on critical analysis of the manual audit. All issues found during automated analysis were manually reviewed and applicable vulnerabilities are presented in the issues checking status.

We found 0 critical, 0 high, 0 medium and 1 low.

CRIR MSH Token Distribution



 The top 100 holders collectively own 98.70% (296,101,932.39 Tokens) of CRIR MSH

 Token Total Supply: 300,000,000.00 Token | Total Token Holders: 7,602



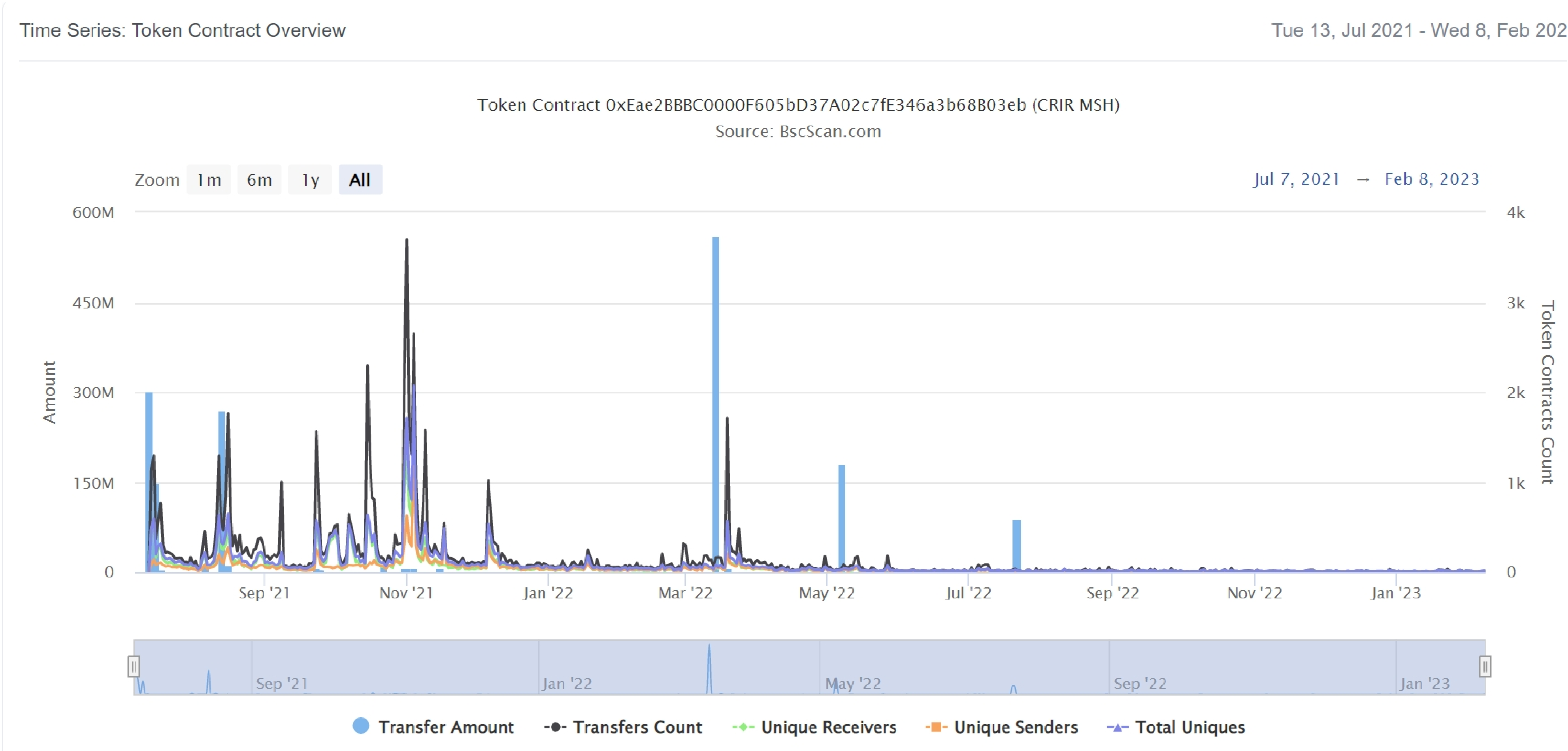
CRIR MSH Top 20 Token Holders

(A total of 296,101,932.39 tokens held by the top 100 accounts from the total supply of 300,000,000.00 token)

Rank	Address	Quantity (Token)	Percentage
1	Null Address: 0x000...dEaD	180,000,001	60.0000%
2	 TrustSwap: Team Finance Security	79,900,000	26.6333%
3	0x7dca7cb03ebb65a0cf275ffb5c4f81a1ab745a71	13,092,618.271970422745742685	4.3642%
4	 PancakeSwap V2: MSH 40	7,069,838.353484830133504643	2.3566%
5	Hotbit 2	3,601,318.019129213535073618	1.2004%
6	HODL: LBank LP	1,204,270.174281797965374915	0.4014%
7	0x0f7b578cf9b69321203a5b9ba7b678c00b53a6c9	903,539.41334565448565465	0.3012%
8	0xbc9cbd192a143d880ef3155c341675bb662a5035	634,859.803897604109663114	0.2116%
9	0x27a9ff991cf4ac4eab3d8f49221eae423dbb0576	523,700.790649721268921113	0.1746%
10	0x4d76b883a8a3d8509ec6c3d6979f1f3811683591	452,683.983848837565133465	0.1509%
11	0x376fd2725b346888f5db767d38a82e5007897606	420,582.501974679350816093	0.1402%
12	0xa6b4a05ee6bb35867a3600016d9f931de0579212	350,000.103529691191808914	0.1167%
13	0xd1aa953e2f0574e01d49eb66c5081057230a8c22	350,000.091041218765184638	0.1167%
14	0xa5abf1b80f876feba74413b12a8f9e755cba3704	350,000	0.1167%
15	0x4a90c985fb0c20c2ec1105c53bb60063f23a7785	304,212	0.1014%
16	0xec66faa1a3edebf27009b707db5e7569e94fbd81	291,139.678282358141124272	0.0970%
17	CoinTiger: CEX	269,150.930946701437913775	0.0897%
18	0x0bba0be5fd54e9f6051181e30d84b786beed07dc	258,997.996473123508577087	0.0863%
19	0xf3bfb44a339b7bc08a55cc02aa26deef4bf38348	250,802.65356073303310209	0.0836%
20	0xa8ef352e760214820323bc5b343ede9a5cb09c41	250,779.067595706612779278	0.0836%

CRIR MSH Token Distribution

CRIR MSH Contract Overview



Contract functions details

+[Int] IBEP20

- [Ext] totalSupply
- [Ext] decimals
- [Ext] symbol
- [Ext] name
- [Ext] getOwner
- [Ext] balanceOf
- [Ext] transfer #
- [Ext] allowance
- [Ext] approve #
- [Ext] transferFrom #

+Context

- [Int] <Constructor> #
- [Int] _msgSender
- [Int] _msgData

+[Lib] SafeMath

- [Int] add
- [Int] sub
- [Int] sub
- [Int] mul
- [Int] div
- [Int] div
- [Int] mod
- [Int] mod

+Ownable (Context)

- [Int] <Constructor> #
- [Pub] owner
- [Pub] renounceOwnership #
 - modifiers: onlyOwner
- [Pub] transferOwnership #
 - modifiers: onlyOwner
- [Int] _transferOwnership #

+ BEP20Token (Context, IBEP20, Ownable)

- [Pub] <Constructor> #
- [Ext] getOwner
- [Ext] decimals
- [Ext] symbol

Contract functions details

- [Ext] name
- [Ext] totalSupply
- [Ext] balanceOf
- [Ext] transfer #
- [Ext] allowance
- [Ext] approve #
- [Ext] transferFrom #
- [Pub] increaseAllowance #
- [Pub] decreaseAllowance #
- [Int] _transfer #
- [Int] _burn #
- [Int] _approve #
- [Int] _burnFrom #

(\$) = payable function

= non-constant function

Issues Checking Status

No.	Title	Status
1.	Compiler error	Passed
2.	Missing Input Validation	Passed
3.	Race conditions and Reentrancy. Cross-function race conditions.	Passed
4.	Possible delays in data delivery	Passed
5.	Oracle calls.	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.	Private use data leaks.	Passed
13.	Malicious Event log.	Passed
14.	Scoping and Declarations.	Passed
15.	Uninitialized storage pointers.	Passed
16.	Arithmetic accuracy.	Passed
17.	Design Logic.	Passed
18.	Safe Open Zeppelin contracts implementation and usage.	Passed
19.	Incorrect Naming State Variable	Passed
20.	Too old version	Low issue

Severity Definitions

Risk Level	Description
Critical	Critical vulnerabilities are usually straightforward to exploit and can lead to assets loss or data manipulations.
High	High-level vulnerabilities are difficult to exploit; however, they also have a significant impact on smart contract execution, e.g., public access to crucial functions
Medium	Medium-level vulnerabilities are important to fix; however, they can't lead to assets loss or data manipulations.
Low	Low-level vulnerabilities are mostly related to outdated, unused, etc. code snippets that can't have a significant impact on execution.

Security Issues

✔ Critical Severity Issues

No critical severity issue found.

✔ High Severity Issues

No high severity issue found.

✔ Medium Severity Issues

NO medium severity issue found.

✔ Low Severity Issues

One low severity issue found.

1. Old compiler version

- **Description**

Contract has been deployed using too old solidity version.

- **Recommendation**

It is advisable to deploy contract using any of the latest version of solidity

Centralization

Owner Privileges:

- CRIR MSH Token Contract:
 - Owner can transfer ownership.
 - Owner can burn tokens.
 - Owner can freeze Account.
 - Owner can withdraw Ether.
 - Owner can withdraw contract tokens.

This smart contract has some functions which can be executed by the admin (Owner) only. If the admin wallet private key would be compromised, then it would create trouble as smart contract ownership has not been renounced. Following are Admin functions:

- transferOwnership
- withdrawMytoken
- withdrawEther
- freezeAccount
- burn
- burnFrom

Conclusion

Smart contract contains low severity issues! The further transfer and operations with the fund raised are not related to this particular contract.

HackSafe 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.