



Smart Contract Security Audit Report

Elemon Token

September 2022

Security Status



www.hacksafe.io



Audit Details



Audited project

Elemon Token



Deployer address

0x60294C21d6aAFB622B803C172641164A0958515E



Client contacts

Elemon Token Team



Blockchain

Binance Smart Chain



Website

<https://elemon.io/>

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 Elemon Token to perform an audit of smart contracts:

- <https://bscscan.com/address/0xe3233fdb23f1c27ab37bd66a19a1f1762fcf5f3f#code>

The purpose of the audit was to achieve the

- 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 15.09.2022

Token Type	: ERC20
Contract name	: ElemonToken
Contract address	: 0xE3233fdb23F1c27aB37Bd66A19a1f1762fCf5f3F
Compiler version	: v0.8.9+commit.e5eed63a
Total supply	: 2,000,000,000
Token ticker	: ELMON
Decimals	: 18
Token holders	: 39,114
Transactions count	: 1,410,875
Contract deployer address	: 0x60294C21d6aAFB622B803C172641164A0958515E
Owner address	: 0x2339ff9981e2e71e19c536d6ba426cf1c362c563

Social profiles

Twitter Profile	: https://twitter.com/ElemonGame
Telegram profile	: https://t.me/ElemonAnnouncement
Coinmarketcap profile	: https://coinmarketcap.com/currencies/elemon/
Coingecko profile	: https://www.coingecko.com/en/coins/elemon/

Audit Summary

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

Insecure	Poor	Secure	Well-secured
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You are here



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 0 low and some very low-level issues. These issues are not critical ones.

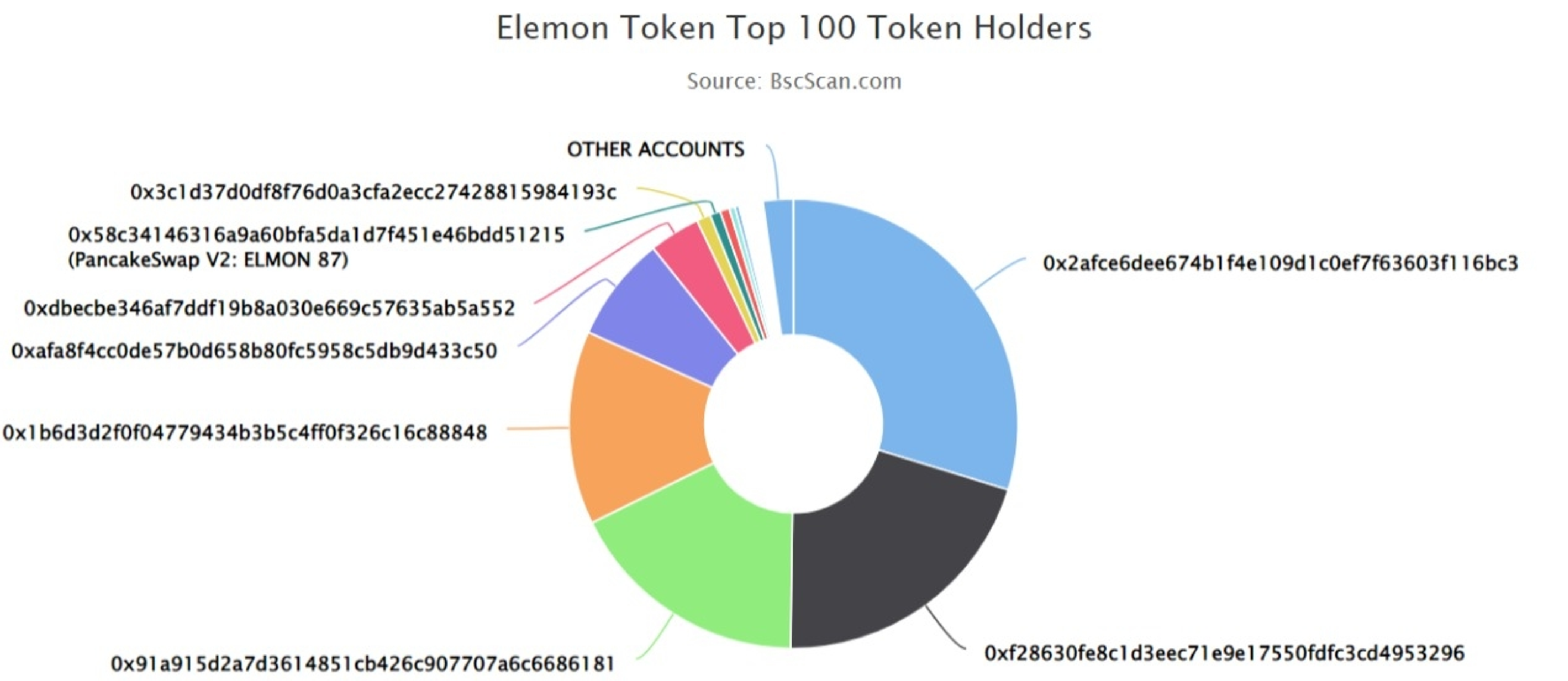
ElemonToken Token Distribution

 The top 100 holders collectively own 97.83% (1,956,548,805.48 Tokens) of Elemon Token

 Token Total Supply: 2,000,000,000.00 Token












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Total Token Holders: 39,113



ElemonToken Top 20 Token Holders

(A total of 1,956,548,805.48 tokens held by the top 100 accounts from the total supply of 2,000,000,000.00 token)

Rank	Address	Quantity (Token)	Percentage
1	 0x2afce6dee674b1f4e109d1c0ef7f63603f116bc3	595,200,000	29.7600%
2	 0xf28630fe8c1d3eec71e9e17550fdc3cd4953296	408,891,690	20.4446%
3	 0x91a915d2a7d3614851cb426c907707a6c6686181	351,000,000	17.5500%
4	 0x1b6d3d2f0f04779434b3b5c4ff0f326c16c88848	278,316,777.779775001108646393	13.9158%
5	 0xaf8f4cc0de57b0d658b80fc5958c5db9d433c50	152,000,000	7.6000%
6	 0xdbecbe346af7ddf19b8a030e669c57635ab5a552	73,601,000	3.6801%
7	0x3c1d37d0df8f76d0a3cfa2ecc27428815984193c	20,000,001.84333096517500194	1.0000%
8	 PancakeSwap V2: ELMON 87	15,175,926.955517727843056858	0.7588%
9	Null Address: 0x000...dEaD	13,408,580.400764750000000024	0.6704%
10	0x832ff0ef46d56f900fea679d4641ef6b7e197d50	8,342,934.899556487984207585	0.4171%
11	 0xf6a7520c04df99f82d562e990b7cb9acda75c015	5,836,700.207922870048762943	0.2918%
12	0x954b1c49fbd96040a4a22326850b5c6861c71cc7	2,500,000	0.1250%
13	 0x379c32204cbc37c8b4a59de601fe6c3f31b7af18	1,910,009	0.0955%
14	0x939820b6fda731c18b980645e263f5084fcc25a6	1,725,750	0.0863%
15	 0xcfb69ce41341024f8fa29209962aca0f8e5ede93	1,591,500	0.0796%
16	0x1bdc1cc1d5aa283252509e1622ed71899925b40a	1,582,752.629600605425111269	0.0791%
17	0x13a99a564d52b95cfc74cce0c896c1061f4ec0af	1,361,971.67992989937593017	0.0681%
18	 0xc701b6ed440897866c8ab731e7be54ecbd4f578a	1,342,250	0.0671%
19	0x5d30e0fd9ba5320dc441d2174bc926c785be92b5	1,126,650	0.0563%
20	0xb0bd91887ef24b7fee221d815e36db6567dad637	1,114,666.14	0.0557%

Contract functions details

ElemonToken.sol

+ ElemonToken (ERC20)

-< constructor>

Ownable.sol

+ Ownable (Context)

-<constructor>

-[Pub] owner

-[Pub] renounceOwnership #

-modifiers: onlyOwner

-[Pub] transferOwnership #

-modifiers: onlyOwner

-[Int] _transferOwnership #

Context.sol

+ Context

-[Int] _msgSender

-[Int] _msgData

-[Int] _now

IERC20Metadata.sol

+ [Int] IERC20Metadata (IERC20)

-[Ext] name

-[Ext] symbol

-[Ext] decimals

IERC20.sol

+ [Int] IERC20

-[Ext] totalSupply

-[Ext] balanceOf

-[Ext] transfer

-[Ext] allowance

-[Ext] approve

-[Ext] transferFrom

ERC20.sol

+ ERC20 (Ownable, IERC20, IERC20Metadata)

- <constructor>

-[Pub] name

-[Pub] symbol

Contract functions details

- [Pub] decimals
- [Pub] totalSupply
- [Pub] balanceOf
- [Pub] transfer #
- [Pub] allowance
- [Pub] approve #
- [Pub] transferFrom #
- [Pub] increaseAllowance
- [Pub] decreaseAllowance
- [Int] _transfer #
- [Int] _mint#
- [Int] _approve #
- [Int] _beforeTokenTransfer#
- [Int] _afterTokenTransfer #

(\$)= payable function

= non-constant function

Issues Checking Status

No.	Title	Status
1.	Unlocked Compiler Version	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	Passed

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 issues found.

✔ Low Severity Issues

No low severity issue found.

Centralization

Owner Privileges :

- Elemon Token Contract:
 - Owner can renounce and transfer ownership.

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

- Transferownership
- Renounceownership

Conclusion

Smart contract contains no 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.