



Smart Contract Security Audit Report

LTO Network

April 2022

Security Status



www.hacksafe.io



Audit Details



Audited project

LTO Network



Deployer address

0xaB89DDe1b45b11Fb5815b4D242F30bA09C70F07d



Client contacts

LTO Network team



Blockchain

Binance smart chain



Website

<https://ltonetwork.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.

Background

HeckSafe was commissioned by LTO Network to perform an audit of smart contracts:

- <https://bscscan.com/address/0x857b222fc79e1cbbf8ca5f78cb133d1b7cf34bbd#code>

Contract Details

Token contract details for 19.04.2022

Contract name	: BEP20FixedSupply
Contract address	: 0x857B222Fc79e1cBBf8Ca5f78CB133d1b7CF34BBd
Total supply	: 500 million
Token Ticker	: LTO
Decimals	: 18
Token Holders	: 14,119
Transactions count	: 140,693
Contract deployer address	: 0xaB89DDe1b45b11Fb5815b4D242F30bA09C70F07d
Owner address	: 0xaB89DDe1b45b11Fb5815b4D242F30bA09C70F07d

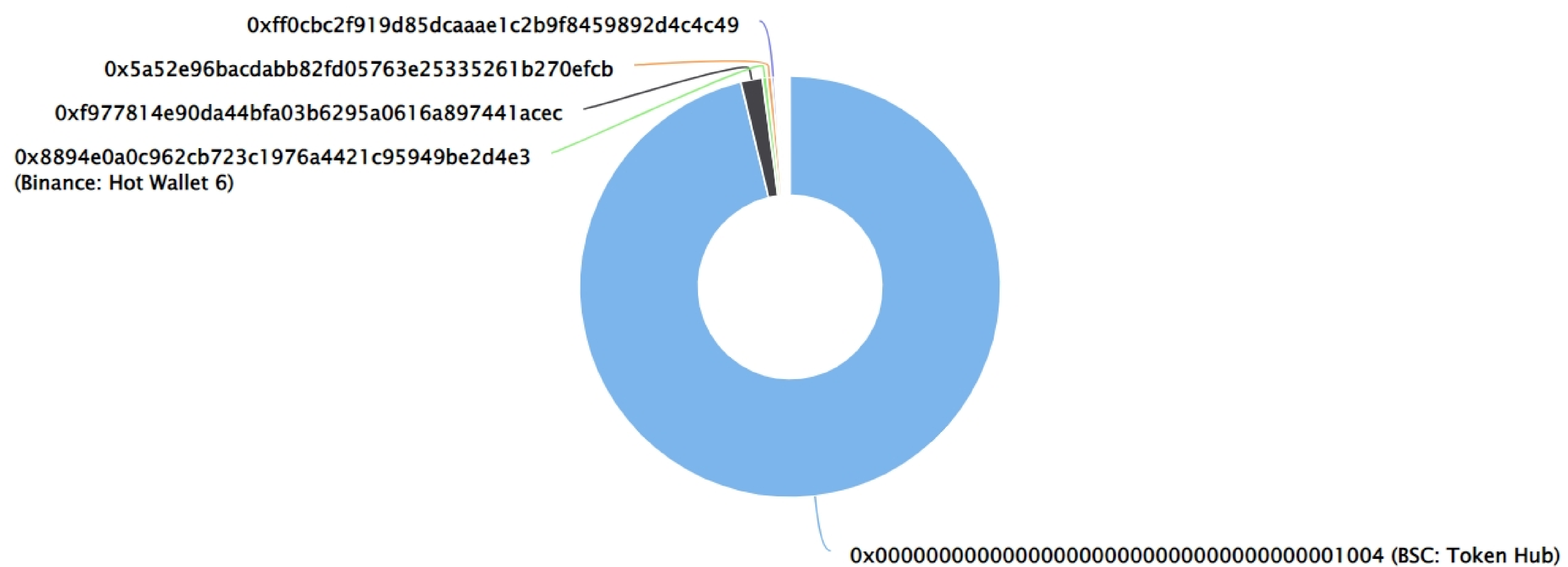
LTO Network Token Distribution

💡 The top 500 holders collectively own 99.90% (499,499,119.20 Tokens) of LTO Network

💡 Token Total Supply: 500,000,000.00 Token | Total Token Holders: 4,119


LTO Network Top 500 Token Holders

Source: BscScan.com



LTO Network Top 10 Token Holders

(A total of 496,371,495.60 tokens held by the top 10 accounts from the total supply of 500,000,000.00 token)

Rank	Address	Quantity (Token)	Percentage
1	 BSC: Token Hub	481,225,205.0852967	96.2450%
2	0xf977814e90da44bfa03b6295a0616a897441acec	8,217,413	1.6435%
3	Binance: Hot Wallet 6	1,867,505.044816021533684906	0.3735%
4	0x5a52e96bacdabb82fd05763e25335261b270efcb	1,763,113.92377104	0.3526%
5	0xff0cbc2f919d85dcaaae1c2b9f8459892d4c4c49	999,999.999999999978853736	0.2000%
6	0x9239df3e9996c776d539eb9f01a8ae8e7957b3c3	820,653.79804122694329917	0.1641%
7	0x7a4be81597c89b602dfcfec73ec4b883f9cb0ba9	491,332.458786374947521836	0.0983%
8	Binance: Hot Wallet 7	449,672.97668863	0.0899%
9	0x4cc340d305faf08b27e80f9b2756dd88b0135191	274,142.07	0.0548%
10	0xe74591afacd08efef2ca2766404b530bdde190e9	262,457.238923722322581833	0.0525%

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] _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 #

+ BEP20FixedSupply (Context, iBEP20, Ownable)

- [Pub] <constructor> #
- [Ext] getOwner
- [Ext] decimals

Contract functions details

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

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.	Low issue
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

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

One low severity issues found.

1. Scoping and Declarations.

Unused function.

- **Description**

The div, div, mod, mod, mul, _msgData functions do nothing.

- **Location**

div, div, mod, mod, mul _msgData functions

- **Recommendation**

We advise to remove unused code which can help you to develop clean coding style and save some computational gas too.

Owner Privileges

Owner Privileges (in the period when the owner is not renounced) :

- LTO Network Contract:
 - Owner can transfer ownership.
 - Owner can renounce ownership.

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.