HackSafe

Smart Contract Security Audit Report

POSSCOIN

January 2023

Security Status

★★★★½

www.hacksafe.io

Audit Details

Audited project
POSSCOIN

Deployer address
0xabb082211930da475879bf315afaddd55913c6a8

Client contacts
POSSCOIN

Blockchain
Ethereum

Website
https://www.posscoin.org/

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 POSSCOIN to perform an audit of smart contracts:

- https://etherscan.io/token/0x6b193e107a773967bd821bcf8218f3548cfa2503#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 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 24.01.2023

Token Type	: DEFI
Contract name	: PossContract
Contract address	: 0x6b193e107A773967bD821bCf8218f3548Cfa2503
Total supply	: 50,000,000,000
Token ticker	: POSS
Decimals	: 18
Token Holders	: 1,821
Transactions count	: 5,877
Compiler version	: v0.4.24+commit.e67f0147
Contract deployer address	: 0xabb082211930da475879bf315afaddd55913c6a8
Owner address	: 0xAbB082211930DA475879BF315AFaDDD55913C6a8

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.

Insecure	Poor secured	Secure	Well-secured

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 1 low.

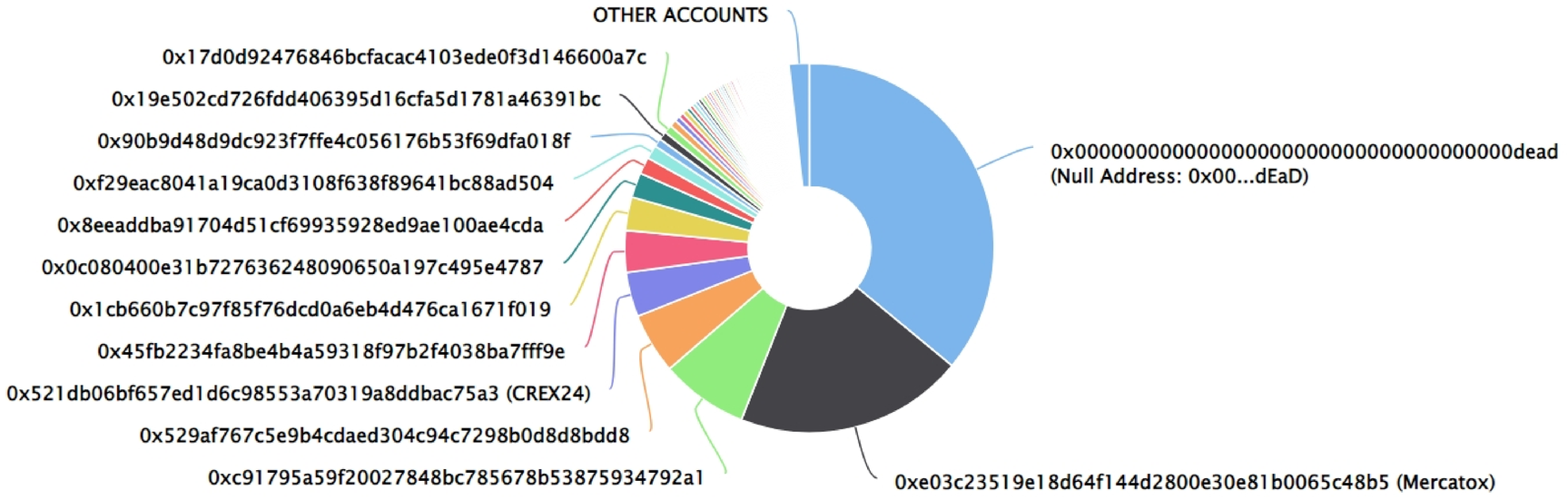
POSSCOIN Token Distribution

The top 100 holders collectively own 98.22% (49,111,979,806.04 Tokens) of Posscoin

Token Total Supply: 50,000,000,000.00 Token | Total Token Holders: 1,821

Posscoin Top 100 Token Holders

Source: Etherscan.io



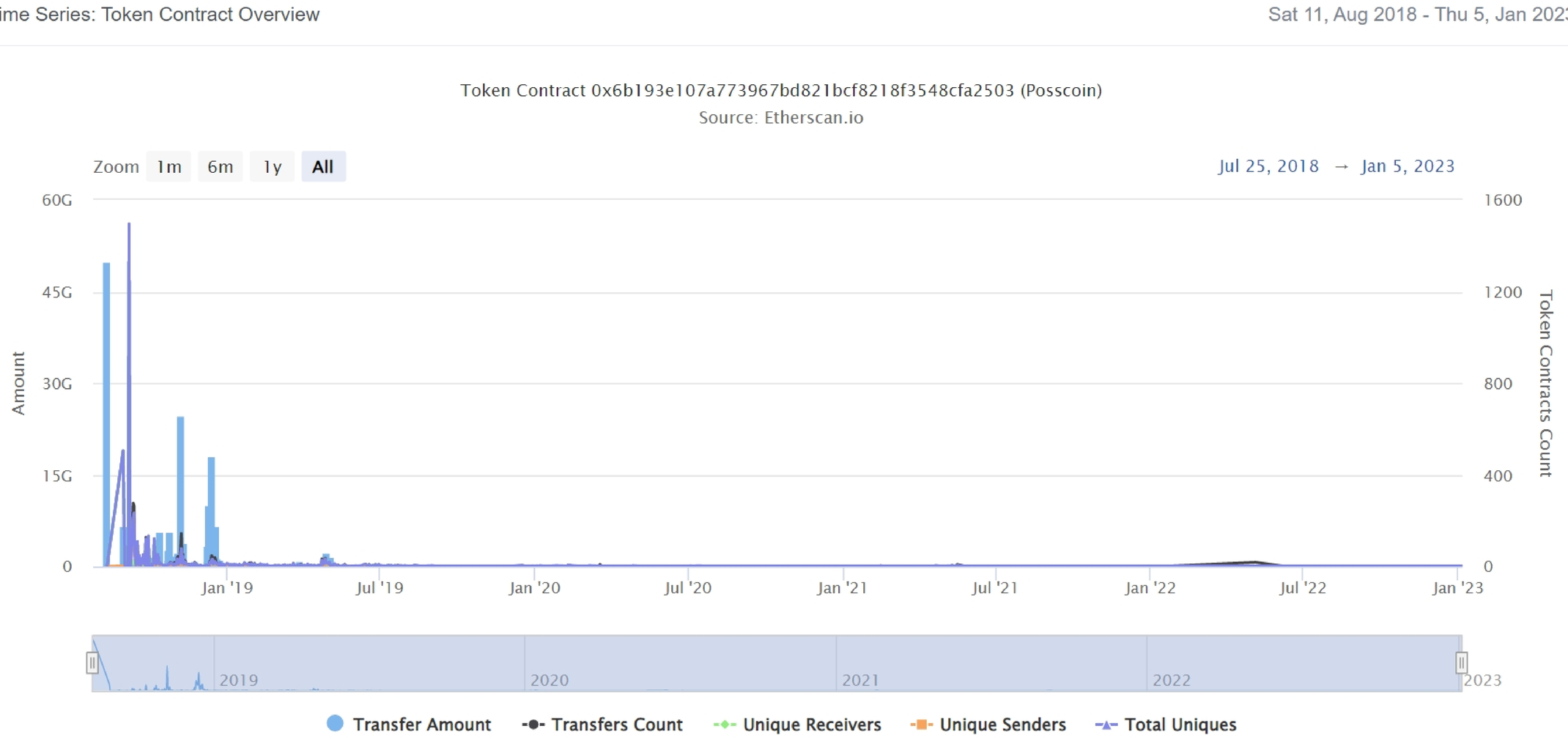
POSSCOIN Top 20 Token Holders

(A total of 49,111,979,806.04 tokens held by the top 100 accounts from the total supply of 50,000,000,000.00 token)

Rank	Address	Quantity (Token)	Percentage
1	Null Address: 0x00...dEaD	18,000,696,969	36.0014%
2	Mercatox	10,007,260,932.13568918	20.0145%
3	0xc91795a59f20027848bc785678b53875934792a1	3,830,881,669	7.6618%
4	0x529af767c5e9b4cdaed304c94c7298b0d8d8bdd8	2,654,673,691.0001	5.3093%
5	CREX24	1,939,955,134.45834183	3.8799%
6	0x45fb2234fa8be4b4a59318f97b2f4038ba7fff9e	1,832,822,799.8675	3.6656%
7	0x1cb660b7c97f85f76dcd0a6eb4d476ca1671f019	1,466,324,159	2.9326%
8	0x0c080400e31b727636248090650a197c495e4787	1,083,952,114.11776333	2.1679%
9	0x8eeaddba91704d51cf69935928ed9ae100ae4cda	732,640,864.2401888	1.4653%
10	0xf29eac8041a19ca0d3108f638f89641bc88ad504	598,997,000	1.1980%
11	0x90b9d48d9dc923f7ffe4c056176b53f69dfa018f	372,166,225.44310384	0.7443%
12	0x19e502cd726fdd406395d16cfa5d1781a46391bc	359,991,000	0.7200%
13	0x17d0d92476846bcfacac4103ede0f3d146600a7c	358,983,000	0.7180%
14	0x556753d67c55d8b8008b762ab813e8257bdf03b8	308,538,684	0.6171%
15	0x9cf25afee57962b45f818add946a5181c01bcbd0	230,236,853	0.4605%
16	0x3f74e11dc5a9044f17d701f785a7e31737022a0a	222,665,057.01198802	0.4453%
17	0x0b6ad96baaa717362ca3eaec7d51650081f65bf1	208,917,585	0.4178%
18	EtherDelta 2	169,682,638.055316120027913468	0.3394%
19	0x1dda4c32408679948ed4e98d66d1e89cf998c07b	160,007,000	0.3200%
20	0x0afe2a328806612b4f6f1d6ef5b47c98d17d701c	156,884,500	0.3138%

POSSCOIN Token Distribution

POSSCOIN Contract Overview



Contract functions details

+SafeMath
  -[Pub] safeAdd
  -[Pub] safeSub
  -[Pub] safemul
  -[Pub] safeDiv

+ERC20Interface
  -[Pub] totalSupply
  -[Pub] balanceOf
  -[Pub] allowance
  -[Pub] transfer #
  -[Pub] approve #
  -[Pub] transferFrom #

+ApproveAndCallFallBack
  -[Pub] receiveApproval #

+Owned
  -[Pub] Owned
  -[Pub] transferOwnership #
    -modifiers: onlyOwner
  -[Pub] acceptOwnership #

+PossContract (ERC20Interface, Owned, SafeMath)
  -[Pub] PossContract #
  -[Pub] totalSupply
  -[Pub] balanceOf
  -[Pub] transfer #
  -[Pub] approve #
  -[Pub] transferFrom #
  -[Pub] allowance
  -[Pub] approveAndCall
  -[Pub] $
  -[Pub] transferAnyERC20Token #
    -modifiers: onlyOwner

($) = 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 :

- POSSCOIN Contract:
    - Owner can transfer ownership.
    - Owner can transfer Any ERC20 Token.

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 the owner function:

- transferAnyERC20Token
- transferOwnership

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.