



Smart Contract Security Audit Report

Pluton

December 2022

Security Status



www.hacksafe.io



Audit Details



Audited project

Pluton



Deployer address

0x04cac93a2894ae801163040df4c5380afabcf9b5



Client contacts

Pluton Team



Blockchain

Ethereum



Website

Not provided

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 Pluton to perform an audit of smart contracts:

- <https://etherscan.io/token/0xD8912C10681D8B21Fd3742244f44658dBA12264E#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.

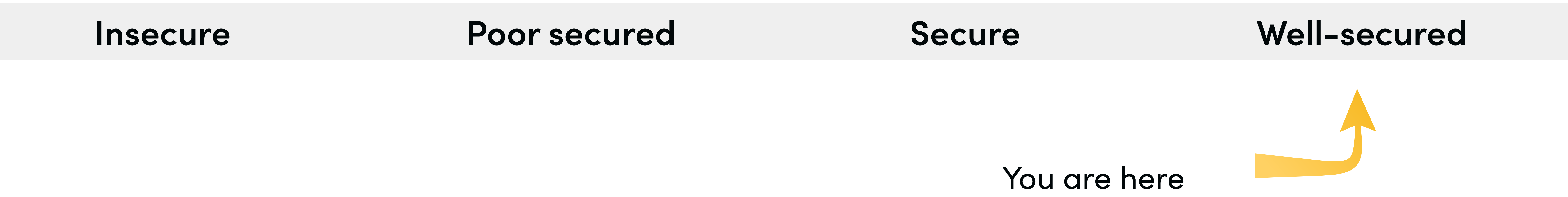
Contract Details

Token contract details for 22.12.2022

Token Type	: DEFI
Contract name	: Pluton
Contract address	: 0xD8912C10681D8B21Fd3742244f44658dBA12264E
Total supply	: 20,000,000
Token ticker	: PLU
Decimals	: 18
Token Holders	: 10,779
Transactions count	: 138,863
Compiler version	: v0.3.6-2016-09-02-341c943
Contract deployer address	: 0x04cac93a2894ae801163040df4c5380afabcf9b5
Owner address	: No owner

Audit Summary

According to the standard audit assessment, Customer`s solidity smart contracts are **"Well Secure"**. This token contract does not contain owner control, which do 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 0 low.

Pluton Token Distribution

 The top 100 holders collectively own 92.31% (18,462,728.88 Tokens) of Pluton

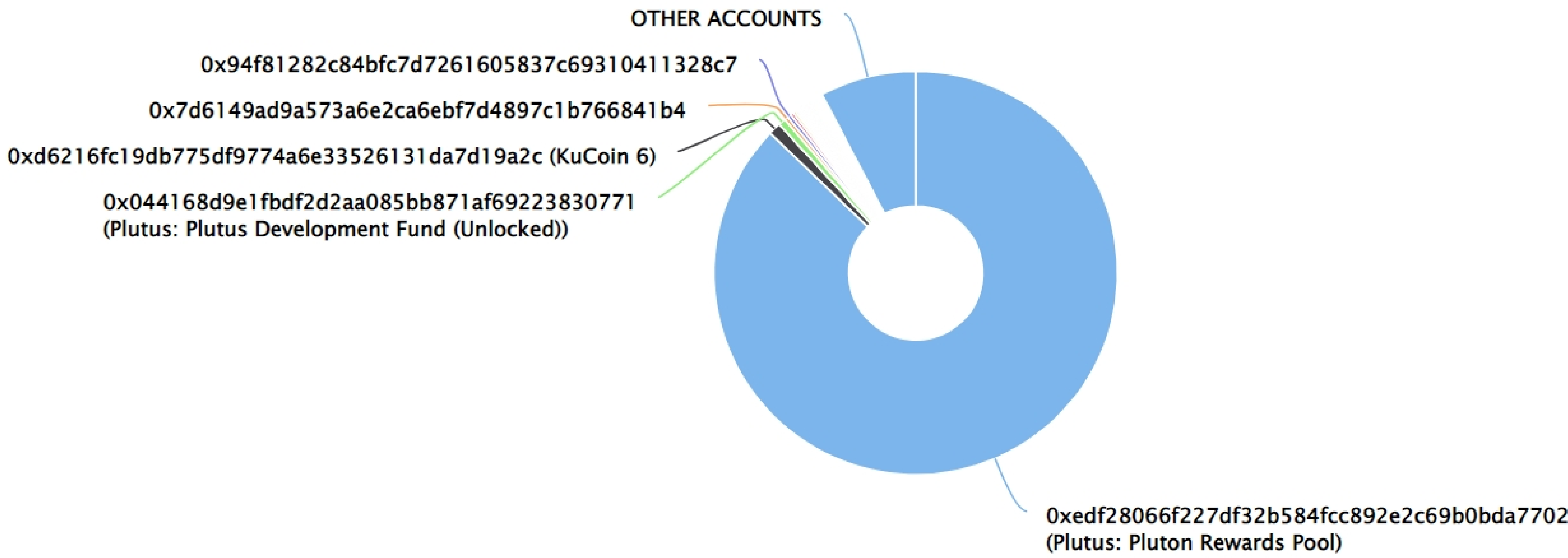
 Token Total Supply: 20,000,000.00 Token

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Total Token Holders: 10,780



Pluton Top 100 Token Holders

Source: Etherscan.io



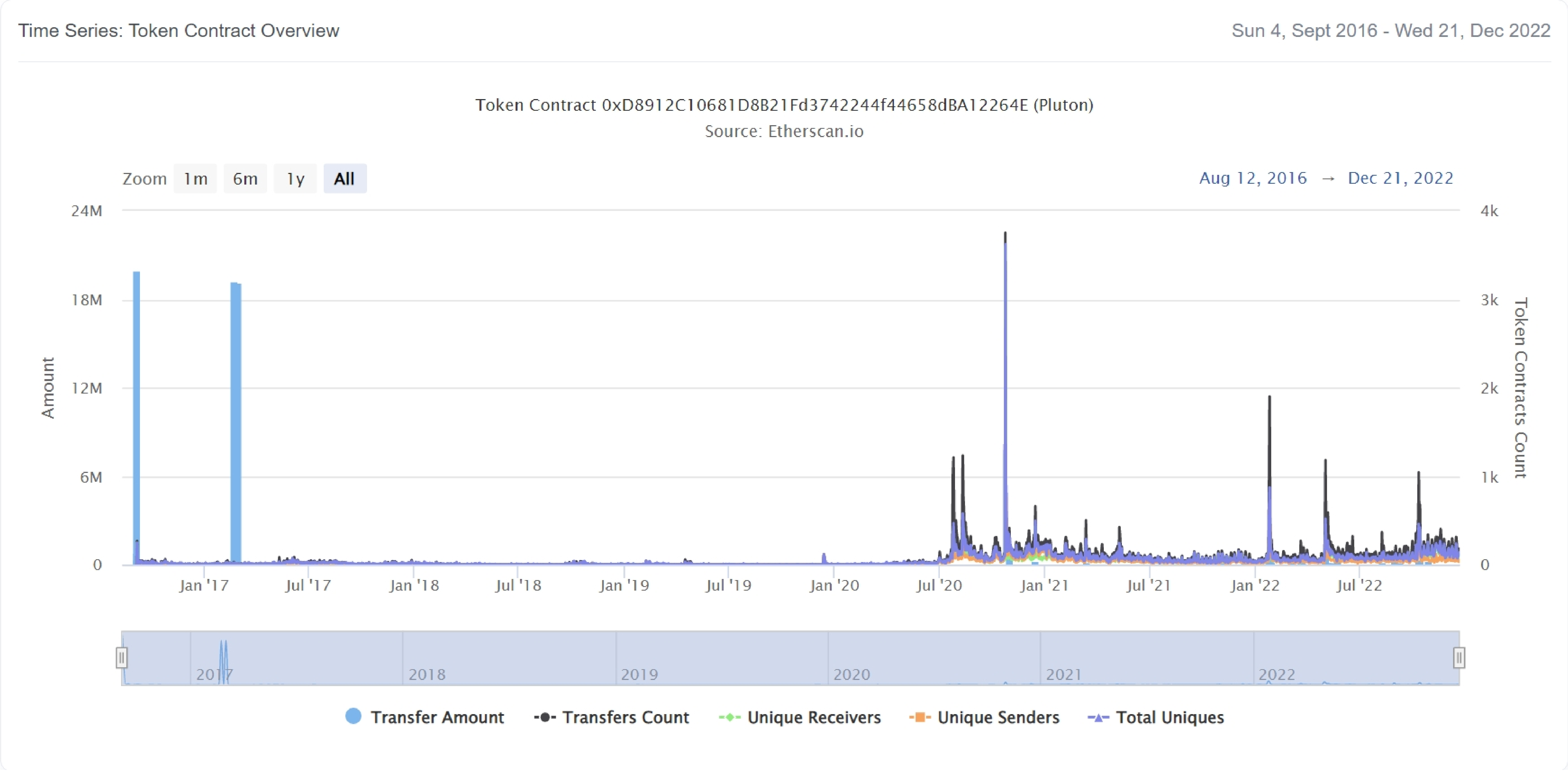
Pluton Top 20 Token Holders

(A total of 18,462,728.88 tokens held by the top 100 accounts from the total supply of 20,000,000.00 token)

Rank	Address	Quantity (Token)	Percentage
1	Plutus: Pluton Rewards Pool	17,436,594.499999999999999927	87.1830%
2	KuCoin 6	198,000	0.9900%
3	Plutus: Plutus Development Fund (Unlocked)	118,000	0.5900%
4	0x7d6149ad9a573a6e2ca6ebf7d4897c1b766841b4	60,000.9479861	0.3000%
5	0x94f81282c84bfc7d7261605837c69310411328c7	58,307.9458267081155345	0.2915%
6	0xa19b1fb36c3ac39d615edf13d39d34c3cccd22f9	53,011.6746388395852548	0.2651%
7	 Coinbase 10	39,580.640387245810967761	0.1979%
8	Bitfinex: Hot Wallet	34,719.9211588090816397	0.1736%
9	0x134c1c5f46390f954b4e318e9d48ed15e4353dc3	34,206.0958627807284	0.1710%
10	0x0fe14f2fffee56dd9d63f61a9a9ae0532963af48	30,803.123933413156749594	0.1540%
11	0x70f03a9b644379b2658833660f1d42fbd8b81fee0	29,890.5	0.1495%
12	0x673b50ebcacd0035a6c31b04895b4fa7cd5f1266	18,135.4402206999999955	0.0907%
13	 Uniswap V3: PLU	17,568.253301505159710062	0.0878%
14	0xdac2fdb27f680a053ff4ed4a0267aa78465a9491	15,266.59265387745	0.0763%
15	0x4900a86f5a921307a752d85e3666fab063f1635e	12,010.79	0.0601%
16	0xfb898112b3e1fc15c5c56b618683edb4498fbe1d	11,010.8958743	0.0551%
17	0xd47297cdcf36eed17305d6a5471c6cd482c7e91c	9,777.707	0.0489%
18	0xaf295438ee1f1c67cc86a7c1d914b8a2187d8db3	9,100.49973476	0.0455%
19	0xc55c5a2a1190396b17530c373d996150762b35cf	8,551.60948179	0.0428%
20	0x8fe84a3054395a0756a9d702367d85be10924def	8,164.43968137	0.0408%

Pluton Token Distribution

Pluton Contract Overview



Contract functions details

+Token

- totalSupply
- balanceOf
- transfer
- transferFrom
- approve
- allowance

+StandardToken (Token)

- transfer #
- transferFrom #
- balanceOf
- approve #
- allowance

+HumanStandardToken (StandardToken)

- HumanStandardToken #
- approveAndCall #

+Pluton (HumanStandardToken)

(\$) = 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	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 issue found.

✔ Low Severity Issues

No low severity issue found.

Conclusion

Smart contract contains no 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.