

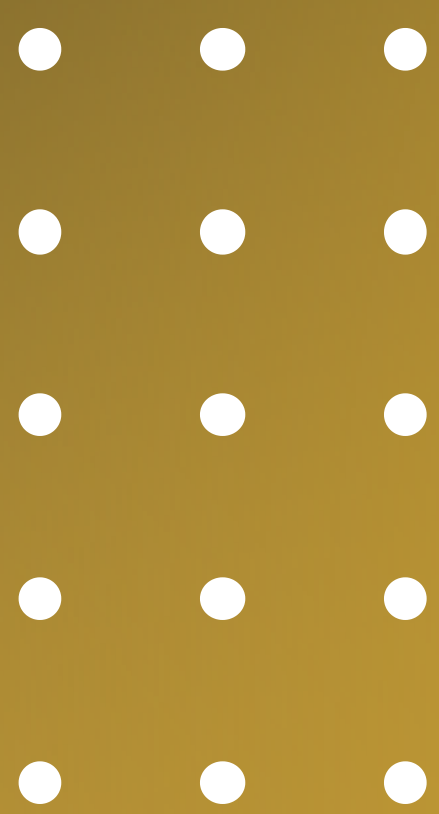


Smart Contract Security Audit Report

OwnData

January 2023

Security Status



Audit Details



Audited project

OwnData



Deployer address

0x75687497a0211a76d62b12c71f353f058390e14d



Client contacts

OwnData



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 OwnData to perform an audit of smart contracts:

- <https://etherscan.io/token/0x170b275ced089fffaebfe927f445a350ed9160dc#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.

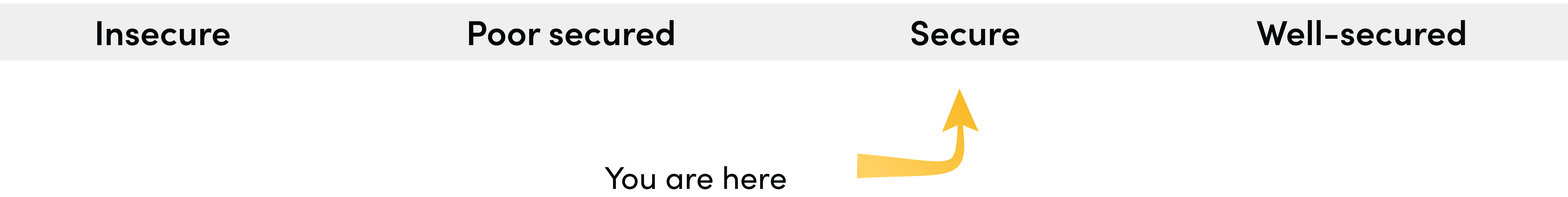
Contract Details

Token contract details for 11.01.2023

Token Type	: DEFI
Contract name	: OwnData
Contract address	: 0x170b275CEd089FffAEBFfe927F445a350ED9160DC
Total supply	: 110,000,000,000
Token ticker	: OWN
Decimals	: 8
Token Holders	: 594
Transactions count	: 1,874
Compiler version	: v0.4.24+commit.e67f0147
Contract deployer address	: 0x75687497a0211a76d62b12c71f353f058390e14d
Owner address	: 0x75687497A0211A76D62b12C71f353F058390E14D

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.



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, 1 medium and 1 low.

OwnData Token Distribution

 The top 100 holders collectively own 95.10% (104,609,305,287.64 Tokens) of OwnData

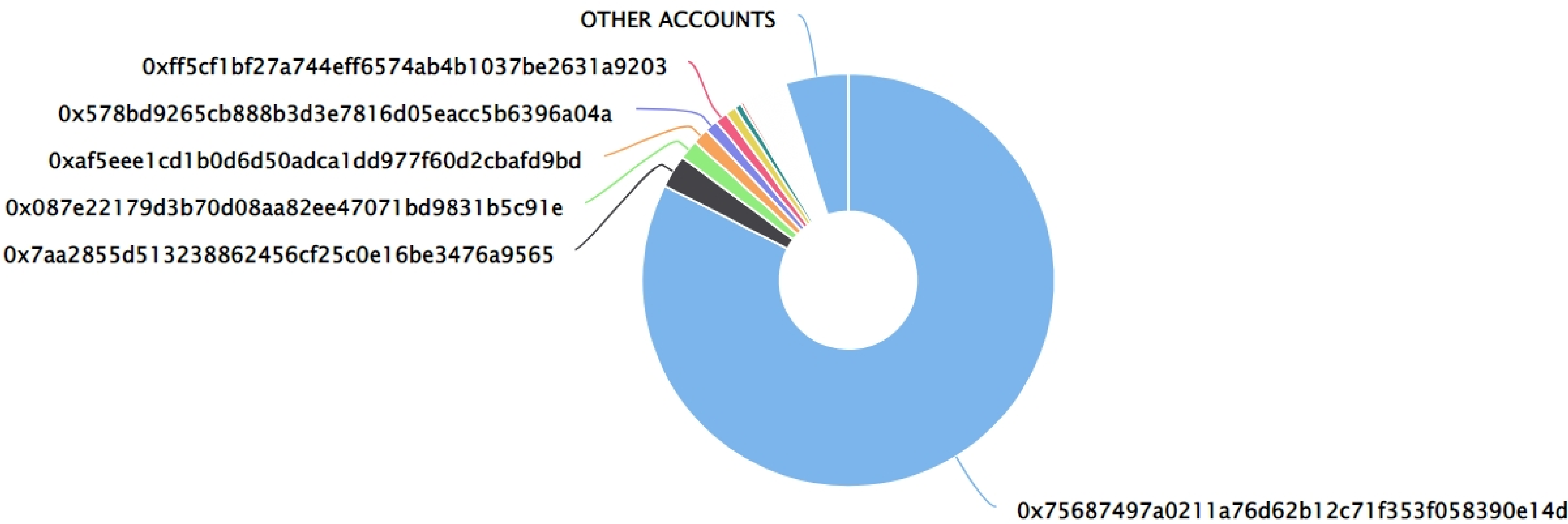
 Token Total Supply: 110,000,000,000.00 Token

|

Total Token Holders: 594

OwnData Top 100 Token Holders

Source: Etherscan.io



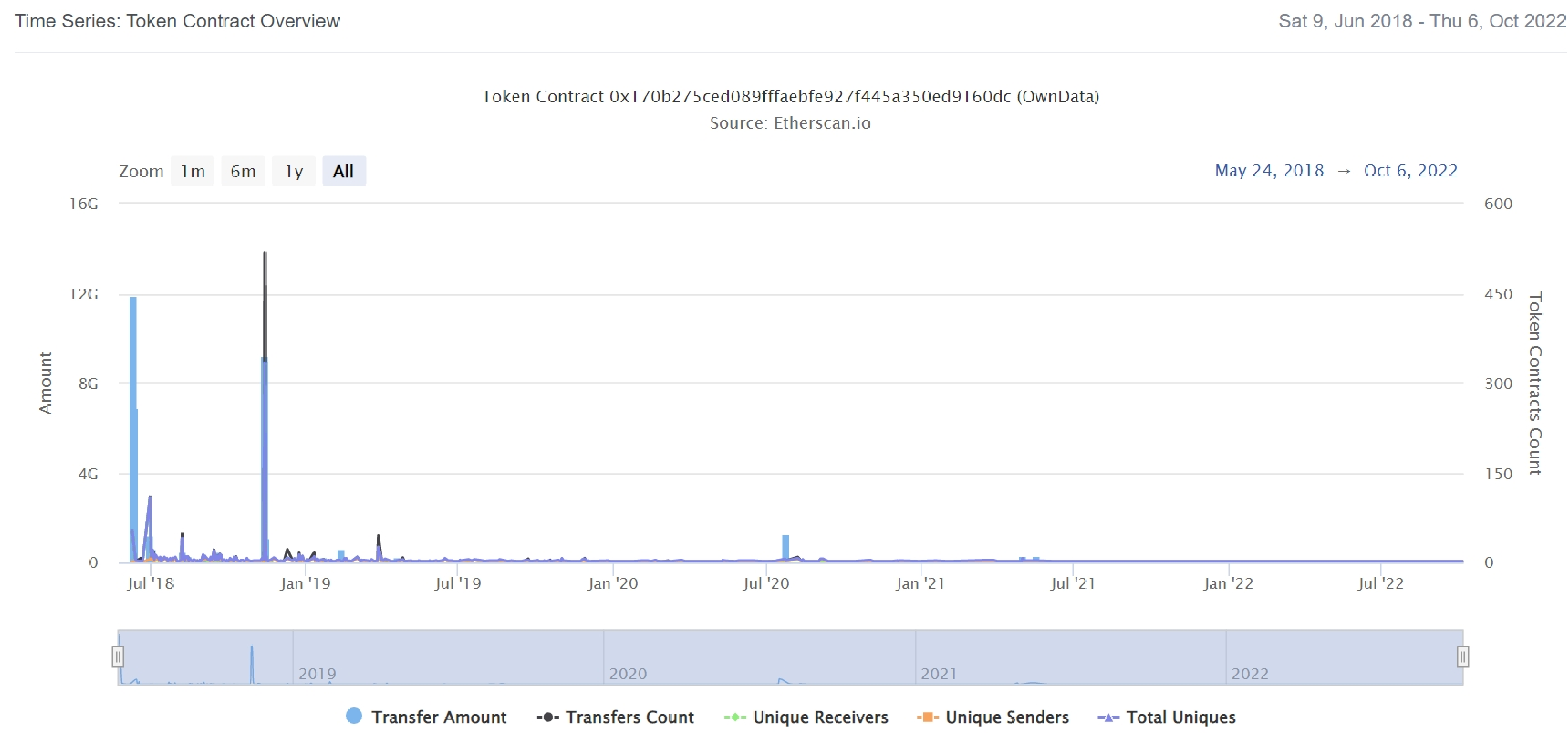
OwnData Top 20 Token Holders

(A total of 104,609,305,287.64 tokens held by the top 100 accounts from the total supply of 110,000,000,000.00 token)

Rank	Address	Quantity (Token)	Percentage
1	0x75687497a0211a76d62b12c71f353f058390e14d	90,799,237,209.3202	82.5448%
2	0x7aa2855d513238862456cf25c0e16be3476a9565	2,846,000,000	2.5873%
3	0x087e22179d3b70d08aa82ee47071bd9831b5c91e	1,684,078,485	1.5310%
4	0xaf5eee1cd1b0d6d50adca1dd977f60d2cbafd9bd	1,397,000,000	1.2700%
5	0x578bd9265cb888b3d3e7816d05eacc5b6396a04a	1,107,082,143.06846767	1.0064%
6	0xff5cf1bf27a744eff6574ab4b1037be2631a9203	1,065,839,372	0.9689%
7	0x1fc62b465d115f839a22fc46fb7de685303245a6	900,000,000	0.8182%
8	0xf208514e38186efaa5084775b57a9025de668dea	619,139,113	0.5629%
9	Hotbit 3	259,330,062.62352492	0.2358%
10	0x88dae330b817ad0d76c1ce209cec55e7377ab323	122,500,000.35	0.1114%
11	0x5a2d4ab02fae67ba378c5b5a611f37f8e3f3f78c	102,418,386	0.0931%
12	0x4d55420da86d2662e080c0917bcbcb6168661f6ac	87,659,323	0.0797%
13	0xa5f380445e3fdf7ae154dc32ef95141c56c0c580	78,118,452.6664	0.0710%
14	0xbf1fb0ecca9f9de39ae5b0e1e267585d54143a0d	75,450,000	0.0686%
15	0xbbca892eb246c11ad135cfc2795362c18ecfdc18	75,450,000	0.0686%
16	0x42e7cc724b0f7791fb35599c7d02862d243cc55e	73,574,727	0.0669%
17	0xecb5de8ac0fe760dc288e60b27a7056e571b2687	61,111,111	0.0556%
18	0x95c103fa007d74c44c6d744e76badb63867ce31f	61,111,111	0.0556%
19	0x02119e0c8ef8efc25089b499c80088c949cba76f	61,111,111	0.0556%
20	0x844d89a174a3c1a947953b8cd3bd87d653670301	61,111,111	0.0556%

OwnData Token Distribution

OwnData Contract Overview



Contract functions details

+ERC20Basic

- [Ext] totalSupply
- [Ext] balanceOf
- [Ext] transfer #

+ [Lib] SafeMath

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

+BasicToken (ERC20Basic)

- [Pub] totalSupply
- [Pub] transfer #
- [Pub] balanceOf

+ERC20 (ERC20Basic)

- [Pub] allowance
- [Pub] transferFrom #
- [Pub] approve #

+StandardToken (ERC20, BasicToken)

- [Pub] transferFrom #
- [Pub] approve #
- [Pub] allowance
- [Pub] increaseApproval #
- [Pub] decreaseApproval #

+Ownable

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

+Pausable (Ownable)

- [Pub] pause #
 - modifiers: onlyOwner, whenNotPaused
- [Pub] unpause #
 - modifiers: onlyOwner, whenPaused

Contract functions details

+PausableToken (StandardToken, Pausable)

-[Pub] transfer #

-modifiers: whenNotPaused

-[Pub] transferFrom #

-modifiers: whenNotPaused

-[Pub] approve #

-modifiers: whenNotPaused

-[Pub] allowance

-modifiers: whenNotPaused

-[Pub] increaseApproval #

-modifiers: whenNotPaused

-[Pub] decreaseApproval #

-modifiers: whenNotPaused

+OwnData (PausableToken)

-[Pub] < constructor> #

-[Pub] distribute #

-modifiers: onlyOwner, whenNotPaused

(\$) = 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.	Medium Issue
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

One medium severity issue found.

1. Out of gas

- **Issue:**

The function distribute() also uses the loop to transfer tokens. It also could be aborted with OUT_OF_GAS exception if there will be a long addresses of addresses list.

- **Recommendation**

Check that the excluded array length is not too big.

✔ 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 :

- OwnData Contract:
 - owner can transfer ownership.
 - owner can pause/unpause transfers.

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.

- transferownership
- renounceownership
- pause
- unpause
- distribute

Conclusion

Smart contract contains low and medium 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.