



Smart Contract Security Audit Report

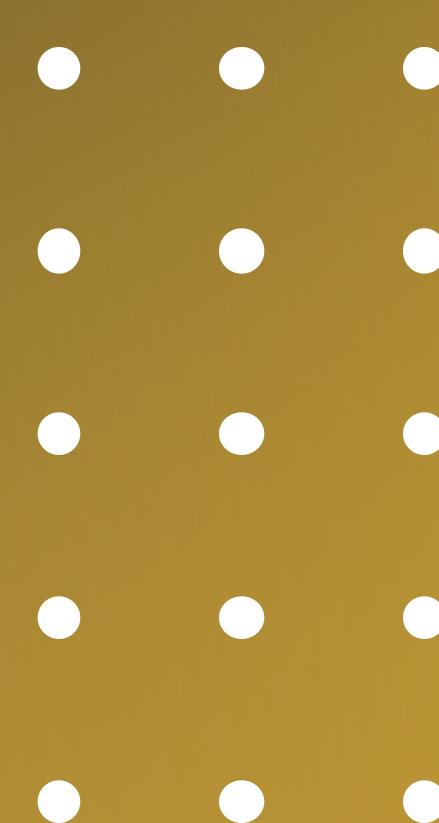
Signata

November 2022

Security Status



www.hacksafe.io



Audit Details



Audited project

Signata



Deployer address

0x042fc4EA3F836e1Ea5Dc4Fb70ec90DeD51c09ECa



Client contacts

Signata Team



Blockchain

Ethereum



Website

<https://sata.technology/>

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 Signata to perform an audit of smart contracts:

- <https://etherscan.io/token/0x3ebb4a4e91ad83be51f8d596533818b246f4bee1#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 02.11.2022

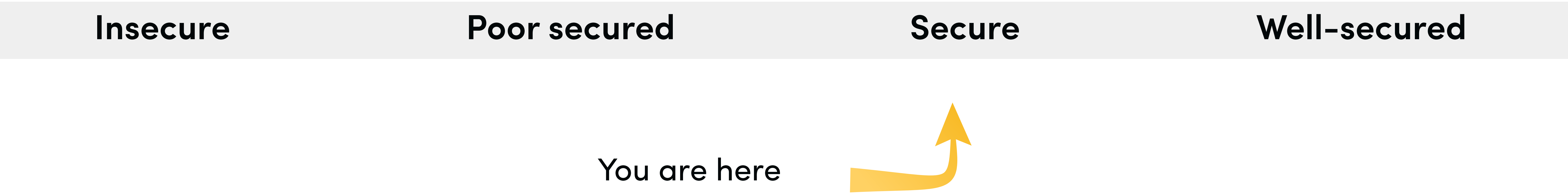
Token Type	: ERC20
Contract name	: SATAToken
Contract address	: 0x3ebb4A4e91Ad83BE51F8d596533818b246F4bEe1
Total supply	: 100,000,000
Token ticker	: SATA
Decimals	: 18
Token holders	: 1,395
Transactions count	: 24,388
Compiler version	: v0.8.3+commit.8d00100c
Contract deployer address	: 0x042fc4EA3F836e1Ea5Dc4Fb70ec90DeD51c09ECas
Owner address	: 0x00

Social profiles

Twitter Profile	: https://twitter.com/SignataOfficial
Telegram profile	: https://t.me/signatanews
Coinmarketcap profile	: https://coinmarketcap.com/currencies/signata/
Coingecko profile	: https://www.coingecko.com/en/coins/signata/

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.



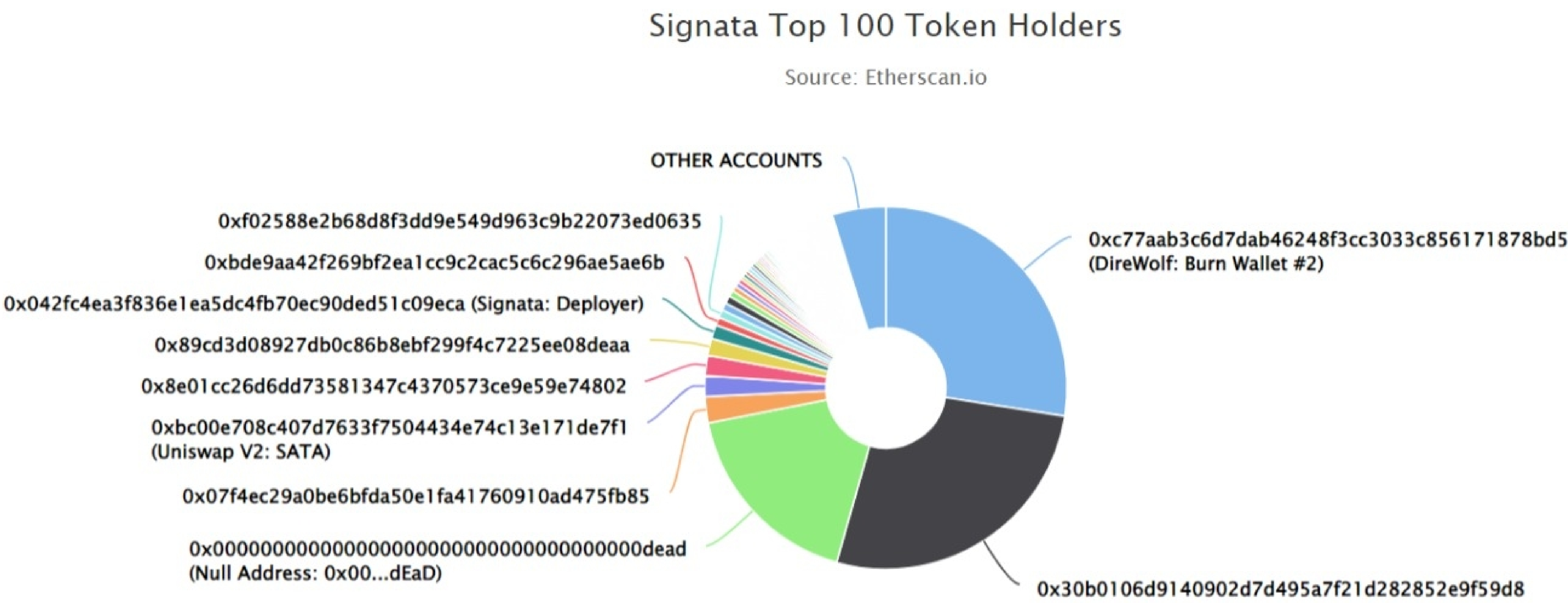
We used various tools like Slither, Mythril and Remix IDE. At the same time this finding is based on critical analysis of the manual audit. All issues found during automated analysis were manually reviewed and applicable vulnerabilities are presented in the issues checking status.

We found 0 critical, 0 high, 0 medium and 1 low.

Signata Token Distribution

💡 The top 100 holders collectively own 95.21% (95,210,097.66 Tokens) of Signata

💡 Token Total Supply: 100,000,000.00 Token | Total Token Holders: 1,394



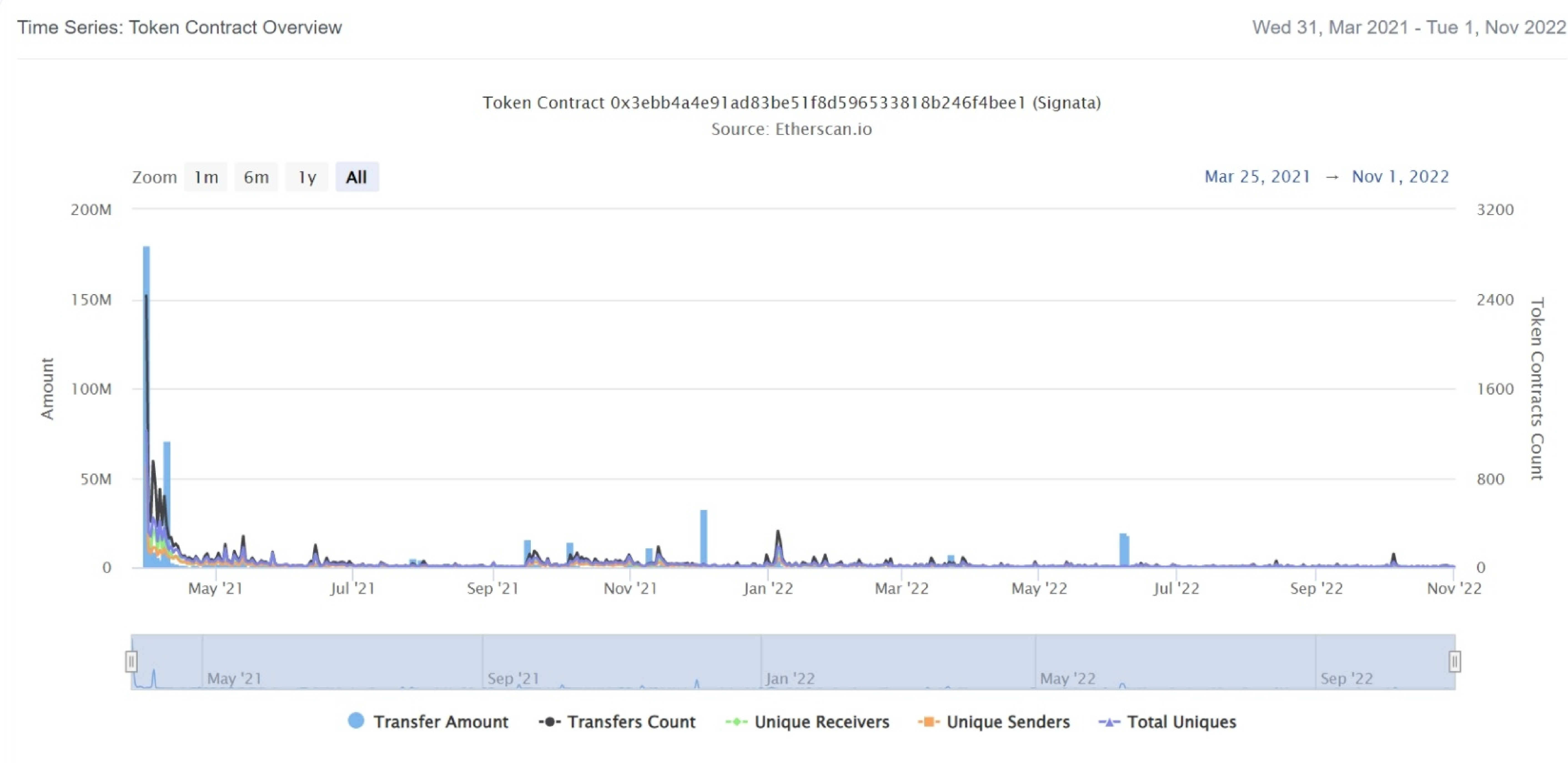
Signata Token Top 20 Token Holders

(A total of 95,210,097.66 tokens held by the top 100 accounts from the total supply of 100,000,000.00 token)

Rank	Address	Quantity (Token)	Percentage
1	DireWolf: Burn Wallet #2	27,500,000	27.5000%
2	0x30b0106d9140902d7d495a7f21d282852e9f59d8	26,900,000	26.9000%
3	Null Address: 0x00...dEaD	17,500,000	17.5000%
4	0x07f4ec29a0be6bfda50e1fa41760910ad475fb85	2,350,301.377934494513760751	2.3503%
5	Uniswap V2: SATA	1,829,473.040792141626159778	1.8295%
6	0x8e01cc26d6dd73581347c4370573ce9e59e74802	1,801,489.630575628379875762	1.8015%
7	0x89cd3d08927db0c86b8ebf299f4c7225ee08deaa	1,519,845.785021846173168066	1.5198%
8	Signata: Deployer	1,239,365.389179814964261453	1.2394%
9	0xbde9aa42f269bf2ea1cc9c2cac5c6c296ae5ae6b	719,539.607037238777985109	0.7195%
10	0xf02588e2b68d8f3dd9e549d963c9b22073ed0635	714,055.772395295290358763	0.7141%
11	SushiSwap: SATA	688,182.511691323255763066	0.6882%
12	Bancor: Master Vault V3	686,633.976260092402834892	0.6866%
13	0xbca889e24d860e78b011f40d32ac698239ec4309	528,836.410089667508022988	0.5288%
14	0x27547def81ec5d07a13a9f6a38b3f84765a4eea4	467,393.18269860964405994	0.4674%
15	0xe515146b460e008f47dfdb593b4f08e108f0287b	408,698.05370615565549699	0.4087%
16	0xb97a925d8027e8633c2aadd377260f9d0126f7f1	396,287.784325410985109183	0.3963%
17	0x6333f546510a365da98f969b3c9603dd253336a9	312,744.286087720029981181	0.3127%
18	0xe171e4d20c7d50d20e8eed6c1c6d8287fb223ba4	309,056.821307659876225928	0.3091%
19	0x5e8073db3c55dfe04c8a40b0de140fd36f82f76a	301,484.902240847769835429	0.3015%
20	0xab82166600f4ad02926112b88c5fdb83b032edb2	300,626.409051371525992584	0.3006%

Signata Token Distribution

Signata Token Contract Overview



Contract functions details

+ [Int] IERC20

- [Ext] totalSupply
- [Ext] balanceOf
- [Ext] transfer
- [Ext] allowance
- [Ext] approve
- [Ext] transferFrom

+Context

- [Int] _msgSender
- [Int] _msgData

+ERC20 (Context, IERC20)

<constructor>

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

+Ownable (Context)

<constructor>

- [Pub] owner
- [Pub] renounceOwnership #
 - modifiers: onlyOwner
- [Pub] transferOwnership #
 - modifiers: onlyOwner

Contract functions details

+SATAToken (ERC20, Ownable)

-<constructor>

-[Ext] mintAirdrop #

-modifiers: onlyOwner

(\$) = payable function

= non-constant function

Issues Checking Status

No.	Title	Status
1.	Unlocked Compiler Version	Low issue
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 issues found.

✔ Medium Severity Issues

No medium severity issues found.

✔ Low Severity Issues

One low severity issue founds.

1. Unlocked Compiler Version.

- **Description**

The contract utilizes an unlocked compiler version. An unlocked compiler version in the contract's source code permits the user to compile it at or above a particular version. This, in turn, leads to differences in the generated bytecode between compilations due to differing compiler version numbers. This can lead to ambiguity when debugging as compiler-specific bugs may occur in the codebase that would be difficult to identify over a span of multiple compiler versions rather than a specific one.

- **Recommendation**

It is advisable that the compiler version is alternatively locked at the lowest version possible so that the contract can be compiled. For example, for version 0.8.0 the contract should contain the following line:

```
pragma solidity 0.8.3;
```

Centralization

Owner Privileges:

- Owner can transfer and renounce ownership.
- Owner can mint new tokens.

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 but smart contract ownership has been renounced. Following are Admin functions:

- Transferownership
- Renounceownership
- Mintairdrop

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.