HackSafe

Smart Contract Security Audit Report

SATIN

January 2023

Security Status

★ ★ ★ ★ ★

www.hacksafe.io

Audit Details

Audited project
SATIN

Deployer address
0xb51bb082908b297bc030137297a178659d11a849

Client contacts
SATIN Team

Blockchain
Binance smart chain

Website
Https://Satintoken.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.

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 SATIN to perform an audit of smart contracts:

- https://bscscan.com/token/0xEB76fA2975deec9750BfCEb84246315945719357#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 04.01.2023

Token Type	: MEME
Contract name	: SATIN
Contract address	: 0xEB76fA2975deec9750BfCEb8424631594571935 7
Total supply	: 45,000,000,000
Token ticker	: SATIN
Decimals	: 18
Token Holders	: 643
Transactions count	: 3,876
Compiler version	: v0.8.0+commit.c7dfd78e
Contract deployer address	: 0xb51bb082908b297bc030137297a178659d11a849
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.

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 0 low.

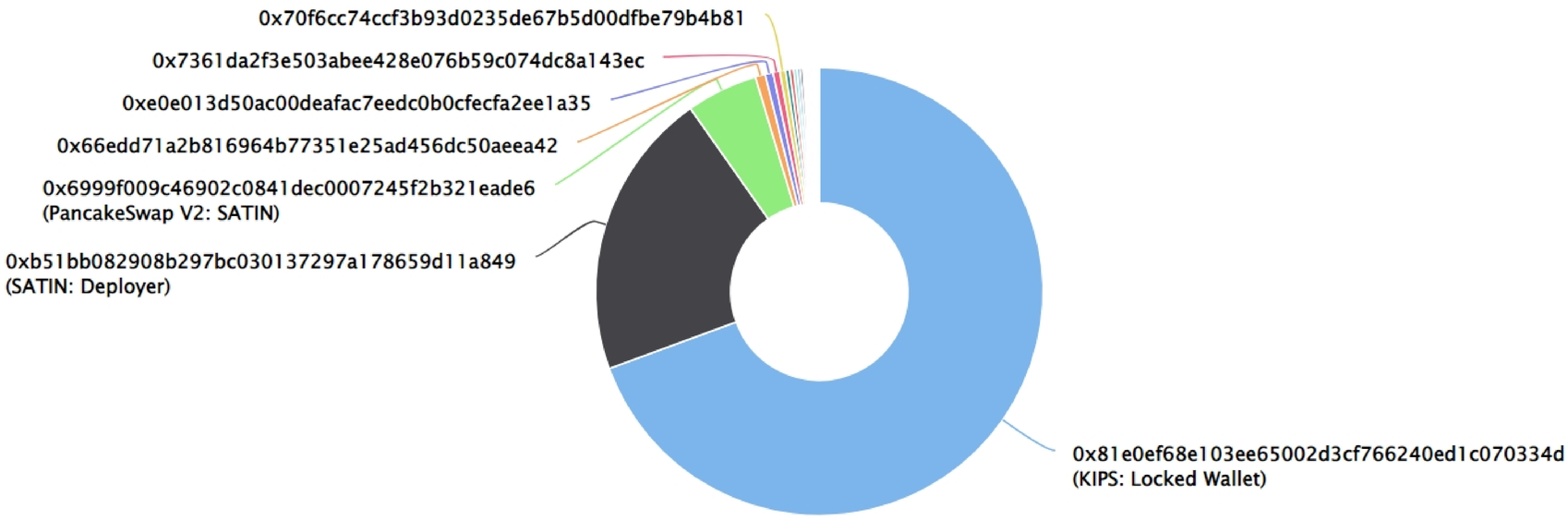
SATIN Token Distribution

The top 100 holders collectively own 99.85% (44,931,947,985.91 Tokens) of SATIN

Token Total Supply: 45,000,000,000.00 Token | Total Token Holders: 643

SATIN Top 100 Token Holders

Source: BscScan.com



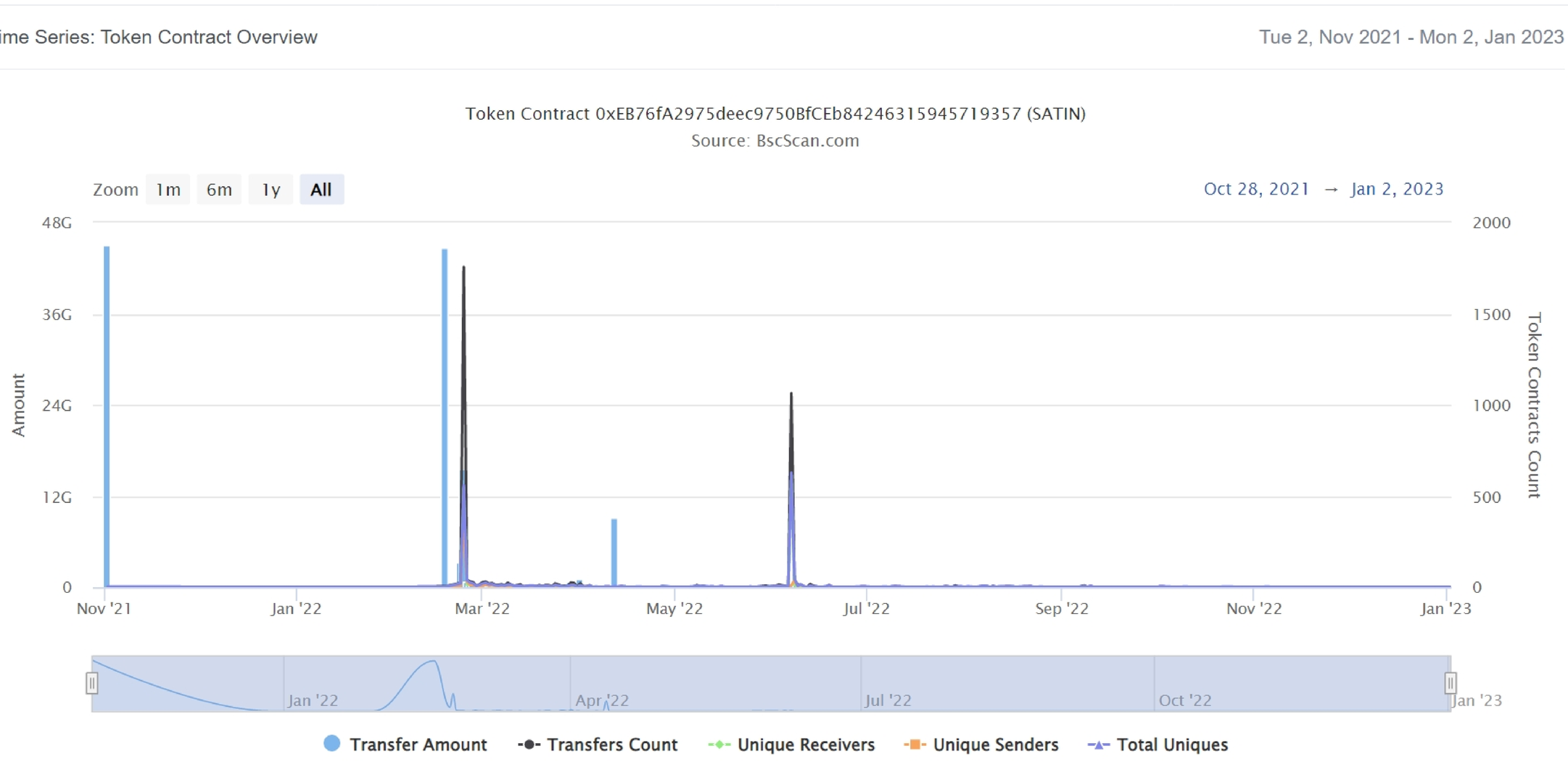
SATIN Top 14 Token Holders

(A total of 44,931,947,985.91 tokens held by the top 100 accounts from the total supply of 45,000,000,000.00 token)

Rank	Address	Quantity (Token)	Percentage
1	KIPS: Locked Wallet	31,238,800,598.4905	69.4196%
2	SATIN: Deployer	9,369,135,150.9341575342457408	20.8203%
3	PancakeSwap V2: SATIN	2,323,038,730.344542596614129917	5.1623%
4	0x66edd71a2b816964b77351e25ad456dc50aeea42	321,972,618.0465753424925408	0.7155%
5	0xe0e013d50ac00deafac7eedc0b0cfecfa2ee1a35	253,102,932.630097239902048573	0.5625%
6	0x7361da2f3e503abee428e076b59c074dc8a143ec	220,000,001	0.4889%
7	0x70f6cc74ccf3b93d0235de67b5d00dfbe79b4b81	179,777,850.207741392896347117	0.3995%
8	0xbc87cfbad42ae6fa2c80e3d2b41f615a96b1067e	135,751,849.254491798253984288	0.3017%
9	Null Address: 0x000...dEaD	129,597,068.648000000170415104	0.2880%
10	0xb7b8e92bdc27d0cd189d2dde03cd0c4f88049e4f	120,000,001	0.2667%
11	0x1f88e0a994a8334d06298282d6499ea25225a6c0	100,000,000.000000004764729344	0.2222%
12	0x8887bb6f8087525ad931aeb2e54a1c89387e2df5	80,868,821.855939804233379496	0.1797%
13	0xfb2bac69362b7c36f1fce9ba541a1f2c0c334b97	51,151,525.76199999717232	0.1137%
14	0xe55d5b23481c3444c6c14a946d18edda784017b9	40,000,000	0.0889%
15	0xf93c8838c2a6f35cc713eac9740a0fc24f108adf	39,996,038.70000000002	0.0889%
16	0x0aa2c334f7d6404031b43fa4747d5200b9461e28	34,583,059.897415656075531414	0.0769%
17	0x3be64c45796166b636caa94593428e5066dfef9c	24,000,000	0.0533%
18	0x53e8e31013dbd4751f46f1b3f101b8e9c43047f9	20,862,020.541968248339868058	0.0464%
19	0x9be7ce705f2c229c24e29e3cafa58cc437e8a209	20,000,000	0.0444%
20	0x9ff442d30be8d45379e0a615c91e7f5df6b20531	13,345,989.261738830022007335	0.0297%

SATIN Token Distribution

SATIN Contract Overview



Contract functions details

+Context
    -[Int] _msgSender
    -[Int] _msgData

+[Int] IERC20
    -[Ext] totalSupply
    -[Ext] balanceOf
    -[Ext] transfer
    -[Ext] allowance
    -[Ext] approve
    -[Ext] transferFrom

+[Int] IERC20Metadata (IERC20)
    -[Ext] name
    -[Ext] symbol
    -[Ext] decimals

+ERC20 (Context, IERC20, IERC20Metadata)
    -<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 #
    -[Int] _afterTokenTransfer #

+SATIN (ERC20)
    -<constructor> #

($) = 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.