HackSafe

Smart Contract Security Audit Report

SIDUS

March 2023

Security Status

★ ★ ★ ★ ★

www.hacksafe.io

Audit Details

Audited project
SIDUS

Deployer address
0x721d09419d625414b4fabcaae5313e73e7c3ddb2

Client contacts
SIDUS 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 SIDUS to perform an audit of smart contracts:

- https://etherscan.io/token/0x549020a9Cb845220D66d3E9c6D9F9eF61C981102#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 03.03.2023

Token Type	: DEFI
Contract name	: Sidus
Contract address	: 0x549020a9Cb845220D66d3E9c6D9F9eF61C981102
Total supply	: 29,579,439,357.93116792887904970 5
Token ticker	: SIDUS
Decimals	: 18
Token Holders	: 21,465
Transactions count	: 181,808
Compiler version	: v0.8.10+commit.fc410830
Contract deployer address	: 0x721d09419d625414b4fabcaae5313e73e7c3ddb2
Contract 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.

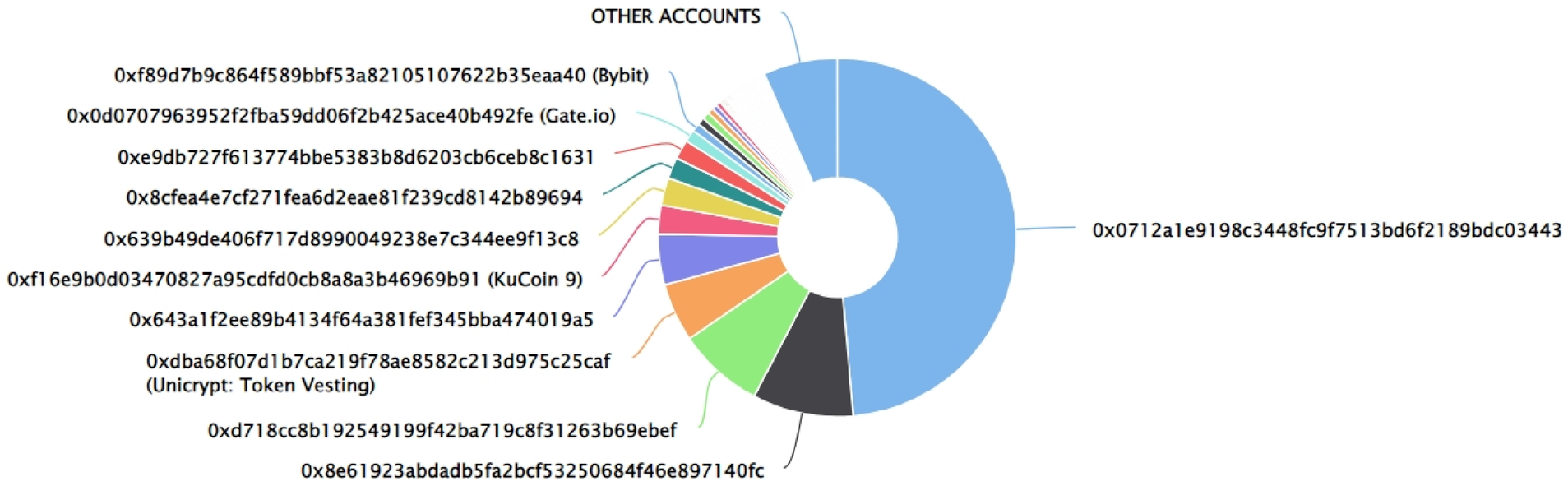
SIDUS Token Distribution

The top 100 holders collectively own 93.31% (27,601,465,556.79 Tokens) of SIDUS

Token Total Supply: 29,579,439,357.93 Token | Total Token Holders: 21,467

SIDUS Top 100 Token Holders

Source: Etherscan.io



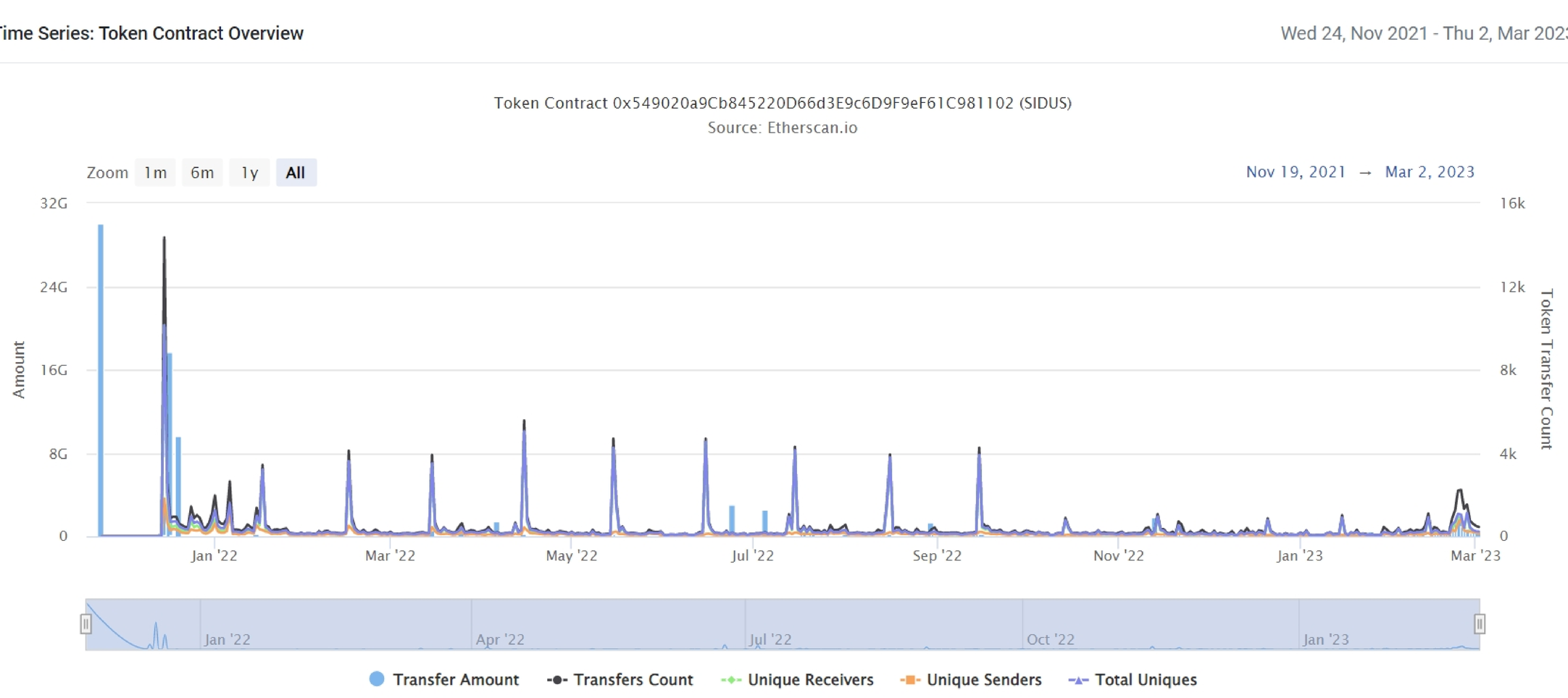
SIDUS Top 20 Token Holders

(A total of 27,601,465,556.79 tokens held by the top 100 accounts from the total supply of 29,579,439,357.93 token)

Rank	Address	Quantity (Token)	Percentage
1	0x0712A1...bDC03443	14,370,240,100	48.5819%
2	0x8E6192...897140FC	2,700,000,000	9.1280%
3	0xd718CC...3b69ebef	2,295,000,000	7.7588%
4	Unicrypt: Token Vesting	1,560,000,000	5.2739%
5	0x643a1f...474019a5	1,350,000,000	4.5640%
6	KuCoin 9	766,979,604.181328818423495783	2.5929%
7	0x639B49...Ee9F13C8	737,766,699.67	2.4942%
8	0x8CfEA4...42B89694	563,838,259.8262196919108	1.9062%
9	0xe9dB72...eB8c1631	516,799,737.13932824311163711	1.7472%
10	Gate.io	322,936,649.221329986466619628	1.0918%
11	Bybit	220,745,419.707620462536976448	0.7463%
12	0x341a6f...FCdE7Bdf	197,040,958	0.6661%
13	0xF93Edd...6F2fE9F0	195,000,100	0.6592%
14	0x7c2524...7015384f	162,500,000	0.5494%
15	Uniswap V2: SIDUS 3	131,493,363.354562198881097739	0.4445%
16	0x1bDD9E...543fA144	123,448,176.7224517788	0.4173%
17	0x4C804e...6Ce1a864	56,616,011.712751672969448229	0.1914%
18	0x78DB57...6B3Be239	56,208,194.704311392567005693	0.1900%
19	Bitfinex: Hot Wallet	55,246,713.095113193474906688	0.1868%
20	0x615B0E...052fE9F7	52,500,000	0.1775%

SIDUS Token Distribution

SIDUS Token Contract overview



Contract functions details

SidusERC20.sol
+Sidus (ERC20)
    -<constructor>
    - [Ext] burn #
    - [Ext] reclaimToken #

ERC20.sol
+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 #

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

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

Contract functions details

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

($) = 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.