



# Smart Contract Security Audit Report

---

## **BSC Conflux**

January 2023

Security Status



[www.hacksafe.io](https://www.hacksafe.io)



# Audit Details



## Audited project

BSC Conflux



## Deployer address

0x7808501d56feb39533c151939e69ef1b89d30026



## Client contacts

BSC Conflux Team



## Blockchain

Binance smart chain



## Website

<https://www.confluxnetwork.org/>



# 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.

**DISCLAIMER:** By reading this report or any part of it, you agree to the terms of this disclaimer. If you do not agree to the terms, then please immediately cease reading this report, and delete and destroy any and all copies of this report downloaded and/or printed by you. This report is provided for information purposes only and on a non-reliance basis, and does not constitute investment advice. No one shall have any right to rely on the report or its contents, and TechRate and its affiliates (including holding companies, shareholders, subsidiaries, employees, directors, officers and other representatives) (HackSafe) owe no duty of care towards you or any other person, nor does HackSafe make any warranty or representation to any person on the accuracy or completeness of the report. The report is provided "as is", without any conditions, warranties or other terms of any kind except as set out in this disclaimer, and HackSafe hereby excludes all representations, warranties, conditions and other terms (including, without limitation, the warranties implied by law of satisfactory quality, fitness for purpose and the use of reasonable care and skill) which, but for this clause, might have effect in relation to the report. Except and only to the extent that it is prohibited by law, HackSafe hereby excludes all liability and responsibility, and neither you nor any other person shall have any claim against HackSafe, for any amount or kind of loss or damage that may result to you or any other person (including without limitation, any direct, indirect, special, punitive, consequential or pure economic loss or damages, or any loss of income, profits, goodwill, data, contracts, use of money, or business interruption, and whether in delict, tort (including without limitation negligence), contract, breach of statutory duty, misrepresentation (whether innocent or negligent) or otherwise under any claim of any nature whatsoever in any jurisdiction) in any way arising from or connected with this report and the use, inability to use or the results of use of this report, and any reliance on this report.

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 BSC Conflux to perform an audit of smart contracts:

- <https://bscscan.com/address/0x045c4324039dA91c52C55DF5D785385Aab073DcF#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 06.01.2023

Token Type	: DEFI
Contract name	: cERC20
Contract address	: 0x045c4324039dA91c52C55DF5D785385Aab073DcF
Total supply	: 706,183,854.155879
Token ticker	: bCFX
Decimals	: 18
Token Holders	: 11,167
Transactions count	: 224,556
Compiler version	: v0.5.11+commit.c082d0b4
Contract deployer address	: 0x7808501d56feb39533c151939e69ef1b89d30026
Owner address	: No owner

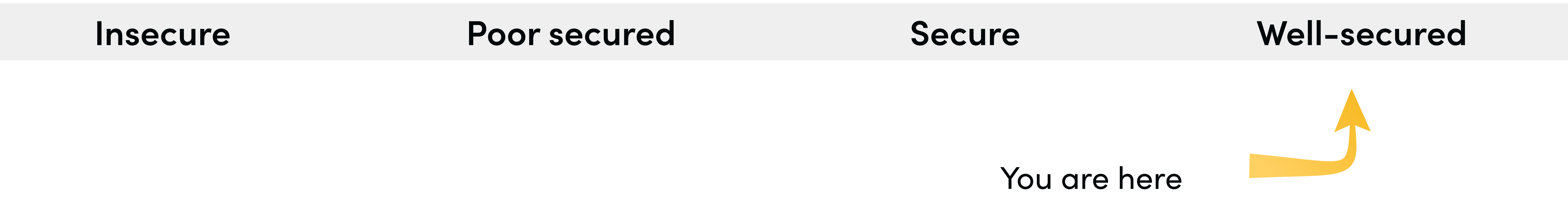


# Social profiles

Twitter profile	: <a href="https://twitter.com/@Conflux_Network">https://twitter.com/@Conflux_Network</a>
Github profile	: <a href="https://github.com/conflux-chain">https://github.com/conflux-chain</a>
Telegram profile	: <a href="https://t.me/Conflux_English">https://t.me/Conflux_English</a>
Coinmarketcap profile	: <a href="https://coinmarketcap.com/currencies/conflux-network/">https://coinmarketcap.com/currencies/conflux-network/</a>

# 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.

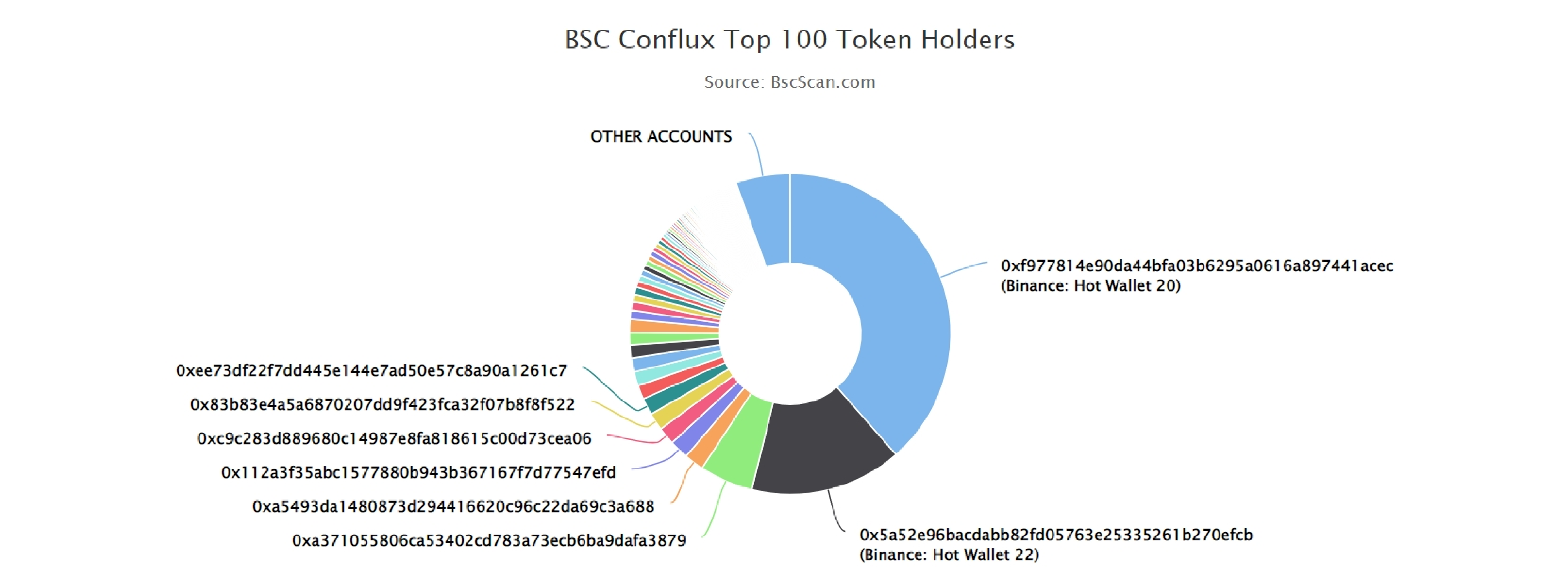


# BSC Conflux Token Distribution

The top 100 holders collectively own 94.52% (667,458,886.83 Tokens) of BSC Conflux

💡

Token Total Supply: 706,183,854.16 Token | Total Token Holders: 11,167



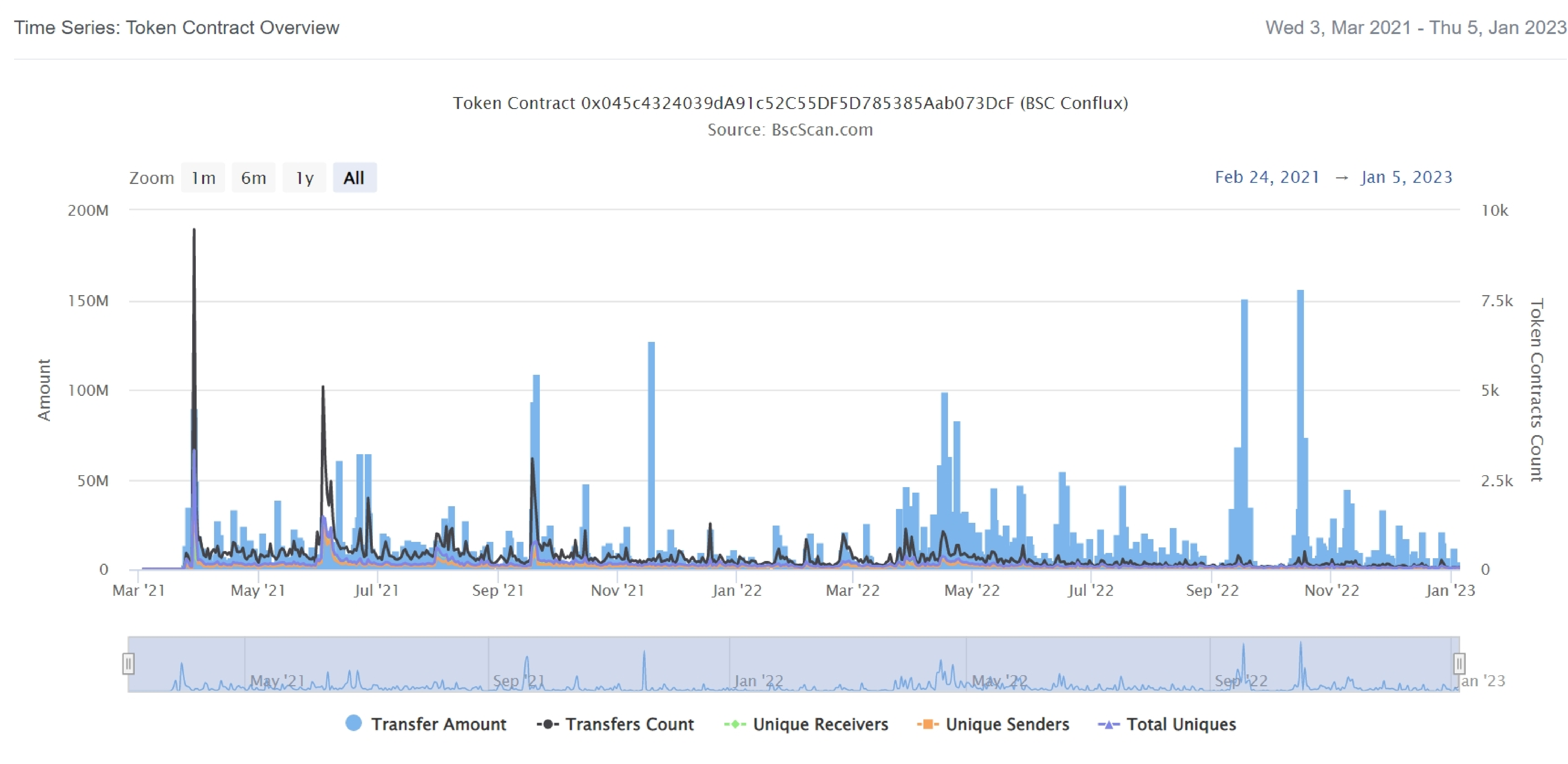
## BSC Conflux Top 20 Token Holders

(A total of 667,458,886.83 tokens held by the top 100 accounts from the total supply of 706,183,854.16 token)

Rank	Address	Quantity (Token)	Percentage
1	Binance: Hot Wallet 20	272,311,882.76503721	38.5610%
2	Binance: Hot Wallet 22	108,000,000	15.2935%
3	0xa371055806ca53402cd783a73ecb6ba9dafa3879	38,087,110.030002955920456215	5.3934%
4	0xa5493da1480873d294416620c96c22da69c3a688	13,999,994.9	1.9825%
5	0x112a3f35abc1577880b943b367167f7d77547efd	13,520,157.4800404096378083	1.9145%
6	0xc9c283d889680c14987e8fa818615c00d73cea06	12,500,000	1.7701%
7	0x83b83e4a5a6870207dd9f423fca32f07b8f8f522	12,402,644.5646974	1.7563%
8	0xee73df22f7dd445e144e7ad50e57c8a90a1261c7	12,042,966.675158569418708071	1.7054%
9	0x3b7e9f9b0b47c1f64b93f27f5c9d1a0f661f1da9	9,979,482.072377905961054624	1.4132%
10	Binance: Hot Wallet 6	9,870,186.881087088031440425	1.3977%
11	0x96d7985b0c90b9401b8b980f5bdee576d13f5036	9,640,335.0660000000000000004	1.3651%
12	0x448bcf9164ec545df6f6841748faaf8e5e5ac26d	9,512,632.519935013925307971	1.3470%
13	0x86165126a620fea9cf06f2fdae5332f6ad696e74	9,048,881.632	1.2814%
14	0x43d06583880074a9006a82fb107f29204399bc35	9,009,838.09055934445414	1.2758%
15	0x2ede63869b2432053565200e3fa2ae79afbb01cd	6,400,000	0.9063%
16	0xa5e7fdbb592cfc8f39d3ca525de2650b6404656	6,053,757.662276176949692349	0.8572%
17	0x0e5176cd11c0af238e1d2769865a06572e0bb169	5,332,163.109768658141681015	0.7551%
18	0x5fd8c738d6275ada7ebdfc9ef30df7b897d62a21	5,100,000	0.7222%
19	0x362c4d3e4ef4b0bbf553d27ad4a80c1e88d5ee0a	4,412,998.201458448139584362	0.6249%
20	0x83da47ab9d850e2352edc200f172dbab39f66d84	4,409,772.263711023612890186	0.6245%

# BSC Conflux Token Distribution

## BSC Conflux Contract Overview





# Contract functions details

## +[Int] IcERC20

- [Ext] totalSupply
- [Ext] balanceOf
- [Ext] transfer
- [Ext] allowance
- [Ext] approve
- [Ext] name
- [Ext] symbol
- [Ext] decimals
- [Ext] mint

## +[Lib] SafeMath

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

## +cERC20 (IcERC20)

- [Pub] < constructor> #
- [Int] \_onlyCore
- [Pub] setCore #
- [Pub] name
- [Pub] symbol
- [Pub] decimals
- [Pub] totalSupply
- [Pub] balanceOf
- [Pub] transfer #
- [Pub] allowance
- [Pub] approve #
- [Pub] transferFrom #
- [Pub] increaseAllowance #
- [Pub] decreaseAllowance #
- [Int] \_transfer #
- [Pub] mint #
- [Int] \_mint #
- [Int] \_approve #

# Contract functions details

(\$)= 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.