



ASTROBIATECH
BLOCKCHAIN SECURITY

MADE IN INDIA

BLOCKCHAIN SECURITY

SECURITY ASSESSMENT REPORT



PREPARED FOR
CoreDoge



@astrobiatech

**April
2023**

 **astrobiatech.in**

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SCOPE OF AUDIT

The scope of this audit was to analyze and document the **COREDOGE** smart contract codebase for quality, security, and correctness.

CHECKED VULNERABILITIES

We have scanned the smart contract for commonly known and more specific vulnerabilities. Here are some of the commonly known vulnerabilities that we considered:

- Re-entrancy
- Timestamp Dependence
- Gas Limit and Loops
- DoS with Block Gas Limit
- Transaction-Ordering Dependence
- Use of tx.origin
- Exception disorder
- Gasless send
- Balance equality
- Byte array
- Transfer forwards all gas
- ERC20 API violation
- Malicious libraries
- Compiler version not fixed
- Redundant fallback function
- Send instead of transfer
- Style guide violation
- Unchecked external call
- Unchecked math
- Unsafe type inference
- Implicit visibility level

TECHNIQUES & METHODS

Throughout the audit of smart contract, care was taken to ensure:

- The overall quality of code.
- Use of best practices.
- Code documentation and comments match logic and expected behaviour.
- Token distribution and calculations are as per the intended behaviour mentioned in the whitepaper.
- Implementation of ERC-20 token standards.
- Efficient use of gas.
- Code is safe from re-entrancy and other vulnerabilities.

The following techniques, methods and tools were used to review all the smart contracts.

Static Analysis

Static Analysis of Smart Contracts was done to identify contract vulnerabilities. In this step a series of automated tools are used to test security of smart contracts.

Code Review / Manual Analysis

Manual Analysis or review of code was done to identify new vulnerability or verify the vulnerabilities found during the static analysis. Contracts were completely manually analyzed, their logic was checked and compared with the one described in the whitepaper. Besides, the results of automated analysis were manually verified.

ISSUE CATEGORIES

Every issue in this report has been assigned with a severity level. There are four levels of severity and each of them has been explained below.

- **HIGH SEVERITY ISSUES**

A high severity issue or vulnerability means that your smart contract can be exploited. Issues on this level are critical to the smart contract's performance or functionality and we recommend these issues to be fixed before moving to a live environment.

- **MEDIUM SEVERITY ISSUES**

The issues marked as medium severity usually arise because of errors and deficiencies in the smart contract code. Issues on this level could potentially bring problems and they should still be fixed.

- **LOW SEVERITY ISSUES**

Low level severity issues can cause minor impact and or are just warnings that can remain unfixed for now. It would be better to fix these issues at some point in the future.

- **INFORMATIONAL**

These are severity four issues which indicate an improvement request, a general question, a cosmetic or documentation error, or a request for information. There is low-to-no impact.

ISSUES TABLE

TYPE	HIGH	MEDIUM	LOW	INFORMATIONAL
OPEN	-	-	-	2
ACKNOWLEDGMENT	-	-	-	-
CLOSED	-	-	-	-

INTRODUCTION

During the period of April 22 , 2023 to April 23 , 2023 – Astrobiatech Blockchain Security Team performed a security audit for **COREDOGE** smart contracts.

CONTRACT NAME	COREDOGE
CONTRACT ADDRESS	0x8bab1ef0f175f6d7ebce79ee277ba091832f6429
BLOCKCHAIN	CORE
TOTAL SUPPLY	1000000000 \$CDC
COMPILER VERSION	v0.8.18+commit.87f61d96
DECIMALS	18

OVERVIEW

CONTRACT ADDRESS

`Ox8bab1ef0f175f6d7ebce79ee277ba091832f6429`

TOKEN TRACKER

CoreDoge (\$CDC)

CONTRACT CREATOR

`Ox9f742dd5825797b78ed66e65dfdda9c3a293224f`

SOURCE CODE

Contract Source Code Verified at Core

CONTRACT NAME

COREDOGE

OTHER SETTINGS

evmVersion MIT License (MIT)

COMPILER VERSION

`v0.8.18+commit.87f61d96`

OPTIMIZATION ENABLED

No with runs

Code is truncated to fit the constraints of this document.

[The code in its entirety can be viewed here.](#)

Informational

1. Unlocked Compiler Version

Description: -

The contract has unlocked compiler version. An unlocked compiler version in the source code of the contract 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 different compiler versions.

Recommendation: -

We advise that the compiler version is instead locked at the lowest version possible that the contract can be compiled at.

Status :- **Not Fixed**

2. DoS with block gas limit

Description: -

If the gas requirement of a function is higher than the block gas limit, it cannot be executed.

Recommendation: -

We advise avoid loops in your functions or actions that modify large areas of storage.

Lines:-

206	214	257	266	280	302	325	345
-----	-----	-----	-----	-----	-----	-----	-----









Status :- **Not Fixed**

FUNCTIONAL TEST

FUNCTIONS NAME	TESTING RESULT
approve	Passed
burn	Passed
changeOwnership	Passed
mint	Passed
release	Passed
transfer	Passed
transferFrom	Passed

HOLDERS

Top 1,000 holders (From a total of 12 holders)

Rank	Address	Quantity	Percentage
1	 0xea0392...696bd9ba	27,000,000	27 %
2	 0x90303d...c7c5c4d2	27,000,000	27 %
3	 0x4fb3b7...89adeae1	20,000,000	20 %
4	 0x611d2e...39021bff	11,942,185.499999998	11.94 %
5	 0x423b1b...631bfd7d	6,000,000	6 %
6	 0x92ec78...8394d30d	4,000,000	4 %
7	 0xdd4bb1...09d969c9	3,000,000	3 %
8	 0x2aa957...5dd9e3ea	1,000,000	1 %
9	0x820118...54166a9e	57,814.500000002	0.06 %
10	0x000000...00000000	0	0 %
11	0x9f742d...a293224f	0	0 %
12	0xdf758f...045e8740	0	0 %



SUMMARY

In this report, we have considered the security of the **COREDOGE** platform. We performed our audit according to the procedure described above. 0 high , 0 medium, 0 low, and 2 informational severity were discovered during the audit.

SOCIAL PROFILES

WEBSITE	https://coredoge.xyz/
EMAIL	CoreDogeGameFi@gmail.com
TELEGRAM	https://t.me/CoreDogeCommunity
TWITTER	https://twitter.com/CoreDoge_xyz
DISCORD	https://discord.io/CoreDogeOfficial
WHITEPAPER	https://coredoge.gitbook.io/coredoge-whitepaper/coredoge-a-multi-gamefi-platform-for-coredao-enthusiasts/abstract

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Proofed
by
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