HackSafe

Smart Contract Security Audit Report

Inescoin

October 2022

Security Status

★ ★ ★ ★ ★

www.hacksafe.io

Audit Details

Audited project
Inescoin

Deployer address
0xebdc0af45bb3c913a8520bc910e54a62ebd1bede

Client contacts
Inescoin Team

Blockchain
Binance smart chain

Website
https://inescoin.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.

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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 Inescoin to perform an audit of smart contracts:

- https://bscscan.com/address/0x03db11045b299b1148f73c1ad07a22e5785985bf#code

The purpose of the audit was to achieve the following:

- Ensutre 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 31.10.2022

Token Type	: BEP20
Contract name	: Inescoin
Contract address	: 0x03db11045b299b1148F73c1Ad07A22E5785985Bf
Total supply	: 9,000,000
Token ticker	: INES
Decimals	: 18
Token holders	: 20
Transactions count	: 73
Compiler version	: v0.8.13+commit.abaa5c0e
Contract deployer address	: 0xebdc0af45bb3c913a8520bc910e54a62ebd1bede
Owner address	: No owner

Social profiles

Twitter profile	: https://twitter.com/crypto_inescoin
Coinmarketcap Profile	: https://coinmarketcap.com/currencies/inescoin/
Telegram profile	: https://t.me/inescoin_group
Coingecko profile	: https://www.coingecko.com/en/coins/inescoin/

Audit Summary

According to the standard audit assessment, Customer`s solidity smart contracts are **“Well Secure”**. This token contract does contain owner control, which do not make it fully decentralized as owner does have control over smart contract.

Insecure	Poor secured	Secure	Well-secured

You are here

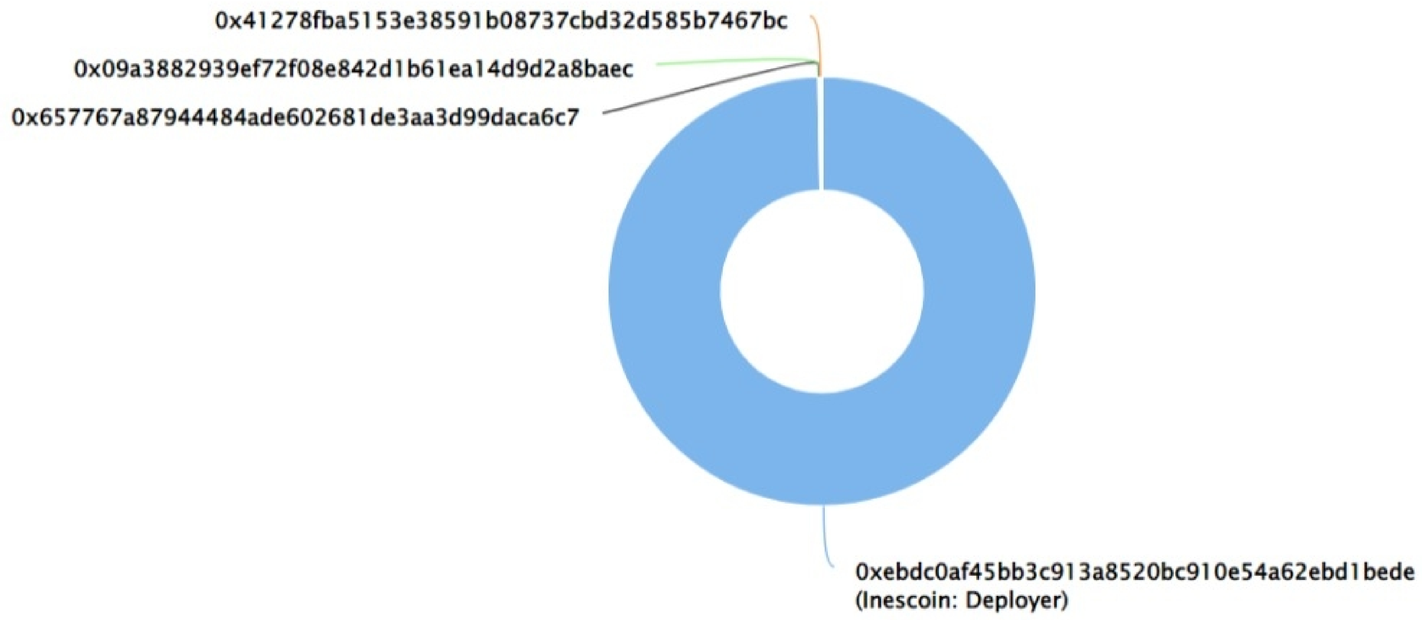
We used various tools like Slither, Mythril and Remix IDE. At the same time this finding is based on critical analysis of the manual audit. All issues found during automated analysis were manually reviewed and applicable vulnerabilities are presented in the issues checking status.

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

Inescoin Token Distribution

The top 100 holders collectively own 100.00% (9,000,000.00 Tokens) of Inescoin

Token Total Supply: 9,000,000.00 Token | Total Token Holders: 20



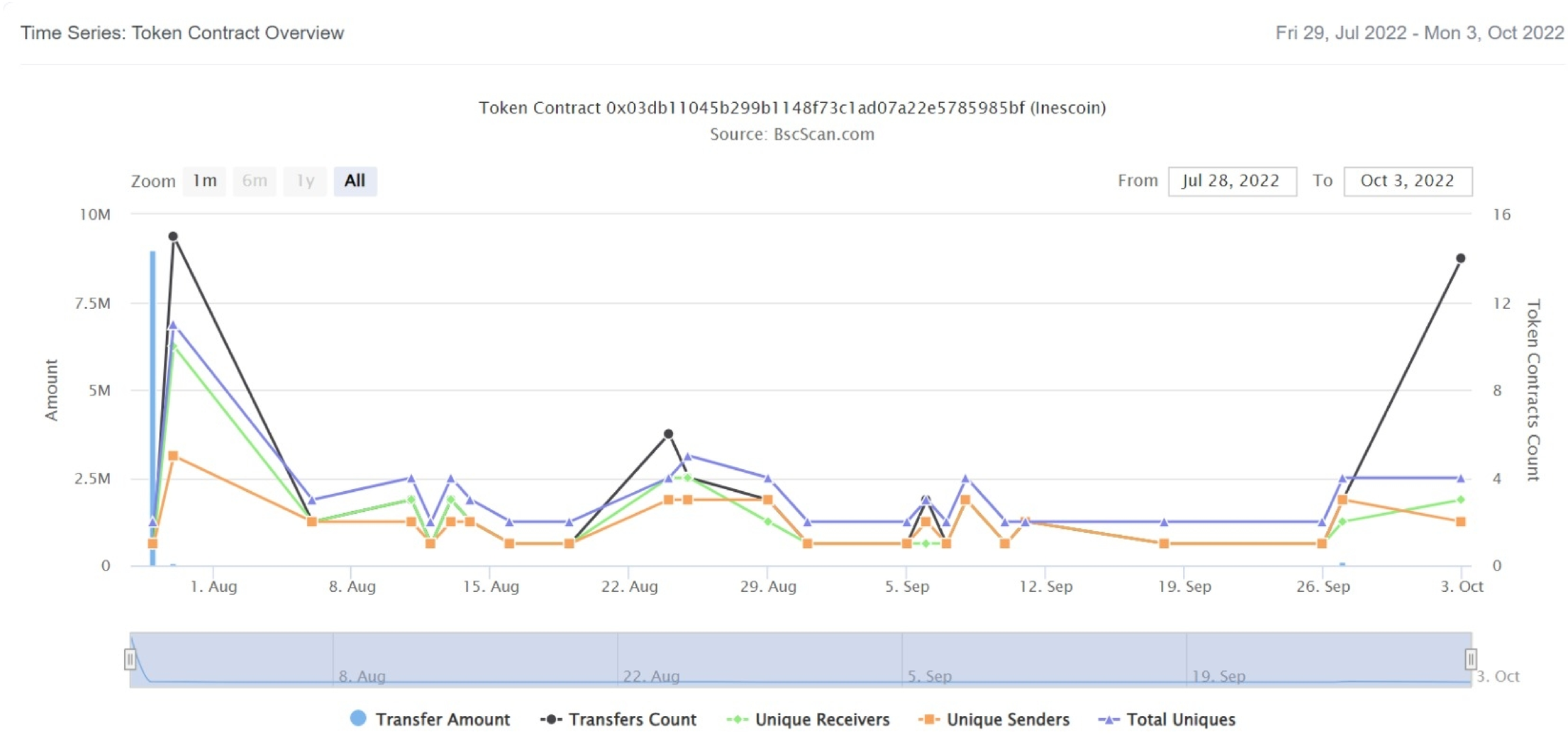
Inescoin Token 20 Token Holders

(A total of 9,000,000.00 tokens held by the top 100 accounts from the total supply of 9,000,000.00 token)

Rank	Address	Quantity (Token)	Percentage
1	Inescoin: Deployer	8,976,421.56993452947686414	99.7380%
2	0x657767a87944484ade602681de3aa3d99daca6c7	5,564.634366492287200485	0.0618%
3	0x09a3882939ef72f08e842d1b61ea14d9d2a8baec	5,000	0.0556%
4	0x41278fba5153e38591b08737cbd32d585b7467bc	4,211.361457255432224316	0.0468%
5	0xd643d8eac539c1d113aa15eaf4c8760af441597d	2,888.801793198880767801	0.0321%
6	0x7edd96b65530f0a664b098f6ea3fb0663a2b805c	1,932.055331690947619567	0.0215%
7	0x93a7798cc1a0effed4b6309377c065c14fa9f46b	1,070	0.0119%
8	0x100191d7f34877a073da7d1e9118d158ea631f52	984.846856542506168831	0.0109%
9	0x5ca249272c4c43a1dd8d2da1775b88ed4b7f0b75	525.630504567527254436	0.0058%
10	0xa2c117f72905dd83167de2ecc2e6d6203e5fb4df	372.659208866214094134	0.0041%
11	0x2be87ad70cf11ea294d7c42044b5b8277a3e4874	281.10756178047154352	0.0031%
12	0x40ac3afe94bd2be380978fab3a4692f2afe39eaa	274.722194529361505871	0.0031%
13	0x87ff349f847226c4563f5cdca4210e20ea1e0cc3	200	0.0022%
14	0x946a0a2a4dc3bea5b17ad493a5719e6dad8e439c	200	0.0022%
15	0xd8029b0fc703146668acfffdf15a9f2ab2ec72c8	46.214795844199447618	0.0005%
16	0xc3a04ac0d7ab59e184ea76f60f568bfeb11ea241	14.543904851549346118	0.0002%
17	0x02661c7785b87a4407a27bd2919037b2b6d81c18	6.722602903587163592	0.0001%
18	PancakeSwap V2: INES-Cake	3.305093913686457029	0.0000%
19	PancakeSwap V2: INES 4	1.824393033872342541	0.0000%
20	0x96370e469d21509d4422a7921253a6dd24172daf	0.000000000000000001	0.0000%

Inescoin Token Distribution

Inescoin Token Contract Overview



Contract functions details

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

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

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

+ 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] _spendAllowance #
    -[Int] _beforeTokenTransfer
    -[Int] _afterTokenTransfer

Contract functions details

+Inescoin (ERC20)

-<constructor>

($) = 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 issues 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 >=0.4.22 <0.9.0 the contract should contain the following line:

  pragma solidity 0.8.13;

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.