



**NOVOS**

## **KYC & AUDIT.**

Novos is an agency specializing in blockchain technology solutions, Audits, KYC / Doxx.



# CERTIFICATE OF COMPLIANCE

Smart Contract Audit by NOVOS



SurvivalInu

Audit Passed

August 17, 2022

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# Audit Summary

This report has been prepared for Survival Inu Token on the DOGECHAIN network. Novos provides both client-centered and user-centered examination of the smart contracts and their current status when applicable. This report represents the security assessment made to find issues and vulnerabilities on the source code along with the current liquidity and token holder statistics of the protocol.

A comprehensive examination has been performed, utilizing Cross Referencing, Static Analysis, In-House Security Tools, and line-by-line Manual Review.

The auditing process pays special attention to the following considerations:

- Ensuring contract logic meets the specifications and intentions of the client without exposing the user's funds to risk.
- Testing the smart contracts against both common and uncommon attack vectors.
- Inspecting liquidity and holders statistics to inform the current status to both users and client when applicable.
- Assessing the codebase to ensure compliance with current best practices and industry standards.
- Verifying contract functions that allow trusted and/or untrusted actors to mint, lock, pause, and transfer assets.
- Thorough line-by-line manual review of the entire codebase by industry experts.



## Project Overview

| Parameter       | Result                                                                                                                                                                                                |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Address         | 0x293409c1f147c24d65Fb95e878Ae7f3c9adb44E9                                                                                                                                                            |
| Name            | Survival INU                                                                                                                                                                                          |
| Token Tracker   | \$SINU                                                                                                                                                                                                |
| Decimals        | 9                                                                                                                                                                                                     |
| Supply          | 100,000,000                                                                                                                                                                                           |
| Platform        | DOGECHAIN                                                                                                                                                                                             |
| Compiler        | v0.8.7+commit.e28d00a7                                                                                                                                                                                |
| Optimization    | Yes with 200 runs                                                                                                                                                                                     |
| Other Settings: | default evmVersion                                                                                                                                                                                    |
| Language        | Solidity                                                                                                                                                                                              |
| Codebase        | <a href="https://explorer.dogechain.dog/address/0x293409c1f147c24d65Fb95e878Ae7f3c9adb44E9/contracts">https://explorer.dogechain.dog/address/0x293409c1f147c24d65Fb95e878Ae7f3c9adb44E9/contracts</a> |
| Url             | <a href="https://survivalinu.com/">https://survivalinu.com/</a>                                                                                                                                       |

## Main Contract Assessed

| Name                | Contract                                   | Live |
|---------------------|--------------------------------------------|------|
| <b>Survival INU</b> | 0x293409c1f147c24d65Fb95e878Ae7f3c9adb44E9 | Yes  |



# Smart Contract Vulnerability Checks

| Vulnerability                                             | Automatic Scan | Manual Scan | Result                 |
|-----------------------------------------------------------|----------------|-------------|------------------------|
| ❖ Unencrypted Private Data On-Chain                       | ✓ Complete     | ✓ Complete  | ✓ <b>Low / No Risk</b> |
| ❖ Code With No Effects                                    | ✓ Complete     | ✓ Complete  | ✓ <b>Low / No Risk</b> |
| ❖ Message call with hardcoded gas amount                  | ✓ Complete     | ✓ Complete  | ✓ <b>Low / No Risk</b> |
| ❖ Hash Collisions With Multiple Variable Length Arguments | ✓ Complete     | ✓ Complete  | ✓ <b>Low / No Risk</b> |
| ❖ Unexpected Ether balance                                | ✓ Complete     | ✓ Complete  | ✓ <b>Low / No Risk</b> |
| ❖ Presence of unused variables                            | ✓ Complete     | ✓ Complete  | ✓ <b>Low / No Risk</b> |
| ❖ Right-To-Left-Override control character (U+202E)       | ✓ Complete     | ✓ Complete  | ✓ <b>Low / No Risk</b> |
| ❖ Typographical Error                                     | ✓ Complete     | ✓ Complete  | ✓ <b>Low / No Risk</b> |
| ❖ DoS With Block Gas Limit                                | ✓ Complete     | ✓ Complete  | ✓ <b>Low / No Risk</b> |
| ❖ Arbitrary Jump with Function Type Variable              | ✓ Complete     | ✓ Complete  | ✓ <b>Low / No Risk</b> |
| ❖ Insufficient Gas Griefing                               | ✓ Complete     | ✓ Complete  | ✓ <b>Low / No Risk</b> |
| ❖ Incorrect Inheritance Order                             | ✓ Complete     | ✓ Complete  | ✓ <b>Low / No Risk</b> |
| ❖ Write to Arbitrary Storage Location                     | ✓ Complete     | ✓ Complete  | ✓ <b>Low / No Risk</b> |
| ❖ Requirement Violation                                   | ✓ Complete     | ✓ Complete  | ✓ <b>Low / No Risk</b> |
| ❖ Missing Protection against Signature Replay Attacks     | ✓ Complete     | ✓ Complete  | ✓ <b>Low / No Risk</b> |
| ❖ Weak Sources of Randomness from Chain Attributes        | ✓ Complete     | ✓ Complete  | ✓ <b>Low / No Risk</b> |





# Smart Contract Vulnerability Checks

| Vulnerability                          | Automatic Scan | Manual Scan | Result                 |
|----------------------------------------|----------------|-------------|------------------------|
| ❖ Authorization through tx.origin      | ✓ Complete     | ✓ Complete  | ✓ <b>Low / No Risk</b> |
| ❖ Delegatecall to Untrusted Callee     | ✓ Complete     | ✓ Complete  | ✓ <b>Low / No Risk</b> |
| ❖ Use of Deprecated Solidity Functions | ✓ Complete     | ✓ Complete  | ✓ <b>Low / No Risk</b> |
| ❖ Assert Violation                     | ✓ Complete     | ✓ Complete  | ✓ <b>Low / No Risk</b> |
| ❖ Reentrancy                           | ✓ Complete     | ✓ Complete  | ✓ <b>Low / No Risk</b> |
| ❖ Unprotected SELFDESTRUCT Instruction | ✓ Complete     | ✓ Complete  | ✓ <b>Low / No Risk</b> |
| ❖ Unprotected Ether Withdrawal         | ✓ Complete     | ✓ Complete  | ✓ <b>Low / No Risk</b> |
| ❖ Unchecked Call Return Value          | ✓ Complete     | ✓ Complete  | ✓ <b>Low / No Risk</b> |
| ❖ Outdated Compiler Version            | ✓ Complete     | ✓ Complete  | ✓ <b>Low / No Risk</b> |
| ❖ Integer Overflow and Underflow       | ✓ Complete     | ✓ Complete  | ✓ <b>Low / No Risk</b> |
| ❖ Function Default Visibility          | ✓ Complete     | ✓ Complete  | ✓ <b>Low / No Risk</b> |





# Contract Ownership

The contract ownership of Survival INU Token is not currently renounced. The ownership of the contract grants special powers to the protocol creators, making them the sole addresses that can call sensible ownable functions that may alter the state of the protocol.

01

The current owner is the address `0x09e94681B3877289Afc34C95506559d9Ec149d8f` which can be viewed from: [HERE](#)

02

The owner wallet has the power to call the functions displayed on the privileged functions chart below, if the owner wallet is compromised this privileges could be exploited.

03

We recommend the team to renounce ownership at the right timing if possible, or gradually migrate to a timelock with governing functionalities in respect of transparency and safety considerations.



# Important Notes To The Users:



01

```
private BuyliquidityFee = 0;  
private BuydevFee = 0;  
private BuymarketingFee = 0;  
private BuybuybackFee = 0;
```

02

```
private SellliquidityFee = 3;  
private SelldevFee = 1;  
private SellmarketingFee = 5;  
private SellbuybackFee = 0;
```

03

Max wallet & Transaction:

```
public _maxBuyTxAmount = _totalSupply / (200) * (4); // 2%  
public _maxSellTxAmount = _totalSupply / (200) * (4); // 2%  
public _maxWalletToken = _totalSupply / (200) * (4); // 2%
```

04

```
public swapThreshold = _totalSupply / 1000 * 1; // 0.1%  
public maxSwapSize = _totalSupply / 100 * 1; //1%
```

05

```
require((heldTokens + amount) <=  
_maxWalletToken,"Total Holding is currently  
limited, you can not buy that much.")
```

06

```
totalDOGEFee = totalFee - (liquidityFee / (2)
```

Only Owner allowed:

07

```
function setBuyFees(uint256 _liquidityFee, uint256  
_buybackFee, uint256 _marketingFee, uint256  
_devFee)
```

```
setSellFees(uint256 _liquidityFee, uint256  
_buybackFee, uint256 _marketingFee, uint256  
_devFee) external onlyOwner
```

08

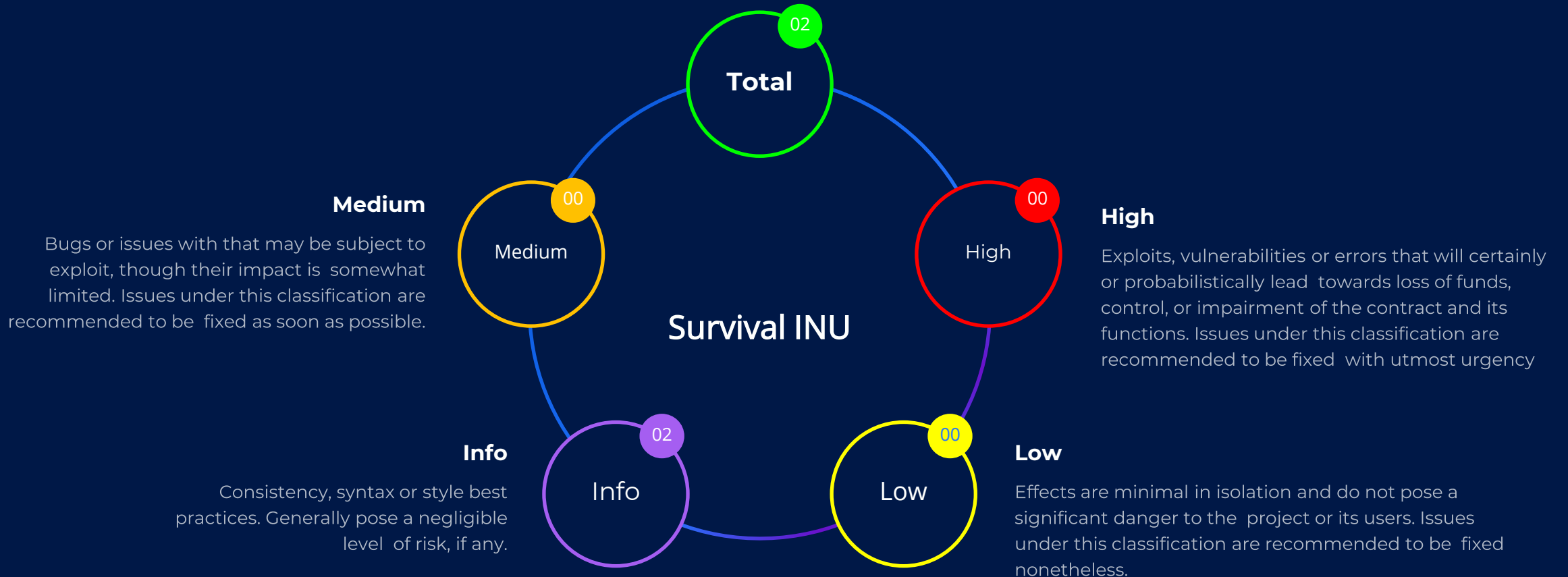
```
setSwapBackSettings(bool _enabled, uint256  
_percentage_min_base10000, uint256  
_percentage_max_base10000) external  
onlyOwner
```

# Technical Findings Summary

## Classification of Issues

### Total

What you should pay attention to



# Findings

Public function that could be declared external



| ID | Severity      | Contract     | Function                                      |
|----|---------------|--------------|-----------------------------------------------|
| 01 | Informational | Survival INU | Functions: size, getKeyAtIndex, getIndexOfKey |

## Description

Gas Optimization. Public function that could be declared external

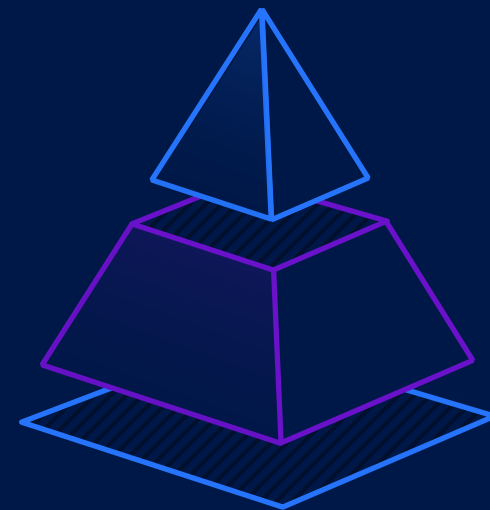
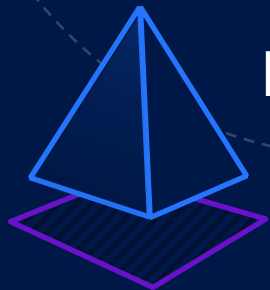
## Recommendation

Public functions that are never called by the contract should be declared external to save gas.



# Findings

## Missing events arithmetic



| ID | Severity      | Contract     | Function                                                                                                                              |
|----|---------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------|
| 02 | Informational | Survival INU | Missing events for setWalletBalance, setMaxBuyTransaction, setMaxSellTransaction, setSwapTokensAtAmount, setSellTransactionMultiplier |

### Description

Functions that change critical arithmetic parameters should emit an event.

### Recommendation

Emit corresponding events for critical parameter changes.

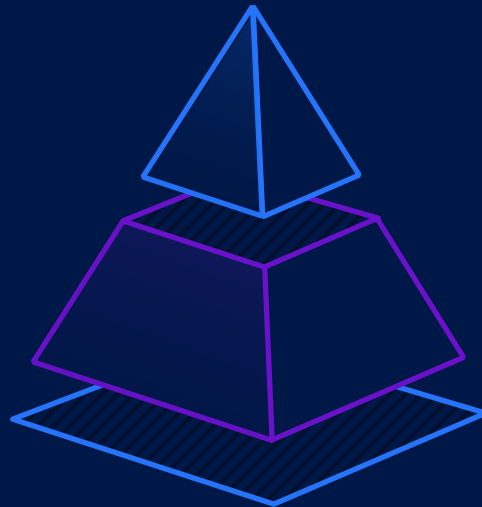


# Privileged Functions (onlyOwner & Others)

| Function Name                        | Parameters                                                                         | Visibility                                                        |
|--------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| ✓ renounceOwnership                  | <ul style="list-style-type: none"><li>▪ none</li></ul>                             | <ul style="list-style-type: none"><li>▪ <b>external</b></li></ul> |
| ✓ transferOwnership                  | <ul style="list-style-type: none"><li>▪ address newOwner</li></ul>                 | <ul style="list-style-type: none"><li>▪ <b>public</b></li></ul>   |
| ✓ prepareForPartnerOrExchangeListing | <ul style="list-style-type: none"><li>▪ address_partnerOrExchangeAddress</li></ul> | <ul style="list-style-type: none"><li>▪ <b>external</b></li></ul> |
| ✓ setWalletBalance                   | <ul style="list-style-type: none"><li>▪ uint256_maxWalletBalance</li></ul>         | <ul style="list-style-type: none"><li>▪ <b>external</b></li></ul> |
| ✓ setMaxBuyTransaction               | <ul style="list-style-type: none"><li>▪ uint256_maxTxn</li></ul>                   | <ul style="list-style-type: none"><li>▪ <b>external</b></li></ul> |
| ✓ setMaxSellTransaction              | <ul style="list-style-type: none"><li>▪ uint256_maxTxn</li></ul>                   | <ul style="list-style-type: none"><li>▪ <b>external</b></li></ul> |
| ✓ updateBusdDividendToken            | <ul style="list-style-type: none"><li>▪ address_newContract</li></ul>              | <ul style="list-style-type: none"><li>▪ <b>external</b></li></ul> |
| ✓ updateMarketingWallet              | <ul style="list-style-type: none"><li>▪ address_newWallet</li></ul>                | <ul style="list-style-type: none"><li>▪ <b>external</b></li></ul> |
| ✓ setSwapTokensAtAmount              | <ul style="list-style-type: none"><li>▪ uint256_swapAmount</li></ul>               | <ul style="list-style-type: none"><li>▪ <b>external</b></li></ul> |
| ✓ setSellTransactionMultiplier       | <ul style="list-style-type: none"><li>▪ uint256_multiplier</li></ul>               | <ul style="list-style-type: none"><li>▪ <b>external</b></li></ul> |
| ✓ setTradingIsEnabled                | <ul style="list-style-type: none"><li>▪ none</li></ul>                             | <ul style="list-style-type: none"><li>▪ <b>external</b></li></ul> |
| ✓ setBusdDividendEnabled             | <ul style="list-style-type: none"><li>▪ bool_enabled</li></ul>                     | <ul style="list-style-type: none"><li>▪ <b>external</b></li></ul> |
| ✓ setMarketingEnabled                | <ul style="list-style-type: none"><li>▪ bool_enabled</li></ul>                     | <ul style="list-style-type: none"><li>▪ <b>external</b></li></ul> |
| ✓ setSwapAndLiquifyEnabled           | <ul style="list-style-type: none"><li>▪ bool_enabled</li></ul>                     | <ul style="list-style-type: none"><li>▪ <b>external</b></li></ul> |
| ✓ updatebusdDividendTracker          | <ul style="list-style-type: none"><li>▪ address newAddress</li></ul>               | <ul style="list-style-type: none"><li>▪ <b>external</b></li></ul> |
| ✓ updateUniswapV2Router              | <ul style="list-style-type: none"><li>▪ address newAddress</li></ul>               | <ul style="list-style-type: none"><li>▪ <b>external</b></li></ul> |

# Privileged Functions (onlyOwner & Others)

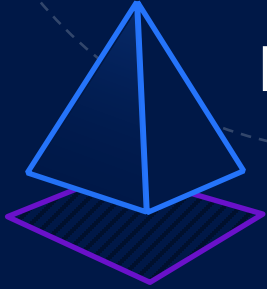
| Function Name                                   | Parameters                                    | Visibility        |
|-------------------------------------------------|-----------------------------------------------|-------------------|
| ✓ <code>excludeFromFees</code>                  | ▪ <code>address account, bool excluded</code> | ▪ <b>public</b>   |
| ✓ <code>excludeFromDividend</code>              | ▪ <code>address account</code>                | ▪ <b>public</b>   |
| ✓ <code>setAutomatedMarketMakerPair</code>      | ▪ <code>address pair, bool value</code>       | ▪ <b>external</b> |
| ✓ <code>updateGasForProcessing</code>           | ▪ <code>uint256 newValue</code>               | ▪ <b>external</b> |
| ✓ <code>updateMinimumBalanceForDividends</code> | ▪ <code>uint256 newMinimumBalance</code>      | ▪ <b>external</b> |
| ✓ <code>updateClaimWait</code>                  | ▪ <code>uint256 claimWait</code>              | ▪ <b>external</b> |
| ✓ <code>processDividendTracker</code>           | ▪ <code>uint256 gas</code>                    | ▪ <b>external</b> |





# Statistics

## Liquidity Info



| Parameter       | Result                                     |
|-----------------|--------------------------------------------|
| Pair Address    | 0x978b8cf28a5e3fd94cfa30ea2d677f609fe06f52 |
| SINU Reserves   | 0 SINU                                     |
| Reserves, BNB   | 0 wDoge                                    |
| Liquidity Value | \$ 0                                       |

# Statistics

## Token (SINU) Holders Info

| Parameter             | Result          |
|-----------------------|-----------------|
| SINU Percentage Burnt | 37.23 %         |
| SINU Amount Burnt     | 37,230,000 SINU |
| Top 10 Percentage Own | 100 %           |
| Top 10 Amount Owned   | 62,770,000 SINU |

### Token Holders

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0x67329052dbf81d68DDe8F40eD4a5ff05B11182F9  
62,270,000 \$SINU 62.2700%

0x0000000000000000000000000000000000000000dEaD  
37,230,000 \$SINU 37.2300%

0x09e94681B3877289Afc34C95506559d9Ec149d8f  
500,000 \$SINU 0.5000%





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