Cyberscope

# Audit Report

# Monkey Shit Inu

June 2024

Network ETH

Address 0x2Be8e422cb4A5A7f217a8F1b0658952a79132F28

Audited by © cyberscope

# Analysis

Critical Medium Minor / Informative Pass

| Severity | Code | Description | Status |
|---|---|---|---|
| ● | ST | Stops Transactions | Passed |
| ● | OTUT | Transfers User's Tokens | Passed |
| ● | ELFM | Exceeds Fees Limit | Passed |
| ● | MT | Mints Tokens | Passed |
| ● | BT | Burns Tokens | Passed |
| ● | BC | Blacklists Addresses | Passed |

# Diagnostics

Critical Medium Minor / Informative

| Severity | Code | Description | Status |
|---|---|---|---|
| ● | MEE | Missing Events Emission | Unresolved |
| ● | L19 | Stable Compiler Version | Unresolved |

# Table of Contents

# Review

| | |
|---|---|
| **Contract Name** | MSIToken |
| **Compiler Version** | v0.8.23+commit.f704f362 |
| **Optimization** | 200 runs |
| **Explorer** | https://etherscan.io/address/0x2be8e422cb4a5a7f217a8f1b0658952a79132f28 |
| **Address** | 0x2Be8e422cb4A5A7f217a8F1b0658952a79132F28 |
| **Network** | ETH |
| **Symbol** | $MSI |
| **Decimals** | 18 |
| **Total Supply** | 3,000,000,000,000 |
| **Badge Eligibility** | Yes |

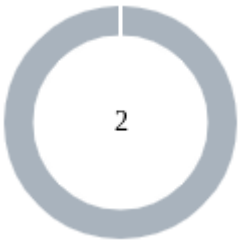
## Audit Updates

| | |
|---|---|
| **Initial Audit** | 14 Jun 2024 |

## Source Files

| **Filename** | SHA256 |
|---|---|
| **contracts/errors.sol** | cc3c970d7d5833744d978712c28c3e39a95aafa0124992e4945113665359a810 |
| **contracts/MSIToken.sol** | 9431bf9ee3b29b62b76fea2b8cc1524b7179abbc22df2015f36ac16143b99b50 |

# Findings Breakdown




| | |
|---|---|
| Critical | 0 |
| Medium | 0 |
| Minor / Informative | 2 |

| Severity | Unresolved | Acknowledged | Resolved | Other |
|---|---|---|---|---|
| Critical | 0 | 0 | 0 | 0 |
| Medium | 0 | 0 | 0 | 0 |
| Minor / Informative | 2 | 0 | 0 | 0 |

# MEE - Missing Events Emission

| | |
|---|---|
| **Criticality** | Minor / Informative |
| **Location** | contracts/MSIToken.sol#L125 |
| **Status** | Unresolved |

## Description

The contract performs actions and state mutations from external methods that do not result in the emission of events. Emitting events for significant actions is important as it allows external parties, such as wallets or dApps, to track and monitor the activity on the contract. Without these events, it may be difficult for external parties to accurately determine the current state of the contract.

```
    function changeTaxWallet(address newTaxWallet) external
onlyOwner isZeroAddress(newTaxWallet) {
        taxWallet = newTaxWallet;
    }
```

## Recommendation

It is recommended to include events in the code that are triggered each time a significant action is taking place within the contract. These events should include relevant details such as the user's address and the nature of the action taken. By doing so, the contract will be more transparent and easily auditable by external parties. It will also help prevent potential issues or disputes that may arise in the future.

## L19 - Stable Compiler Version

| | |
|---|---|
| **Criticality** | Minor / Informative |
| **Location** | contracts/MSIToken.sol#L2 |
| **Status** | Unresolved |

### Description

The `^` symbol indicates that any version of Solidity that is compatible with the specified version (i.e., any version that is a higher minor or patch version) can be used to compile the contract. The version lock is a mechanism that allows the author to specify a minimum version of the Solidity compiler that must be used to compile the contract code. This is useful because it ensures that the contract will be compiled using a version of the compiler that is known to be compatible with the code.

```
pragma solidity ^0.8.23;
```

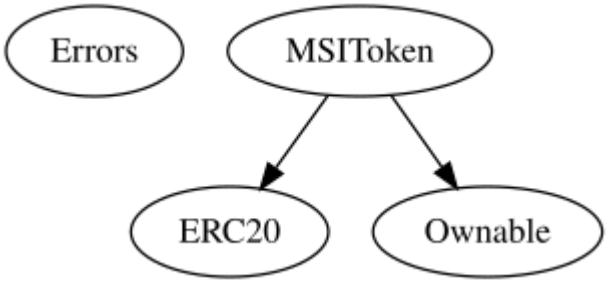
### Recommendation

The team is advised to lock the pragma to ensure the stability of the codebase. The locked pragma version ensures that the contract will not be deployed with an unexpected version. An unexpected version may produce vulnerabilities and undiscovered bugs. The compiler should be configured to the lowest version that provides all the required functionality for the codebase. As a result, the project will be compiled in a well-tested LTS (Long Term Support) environment.

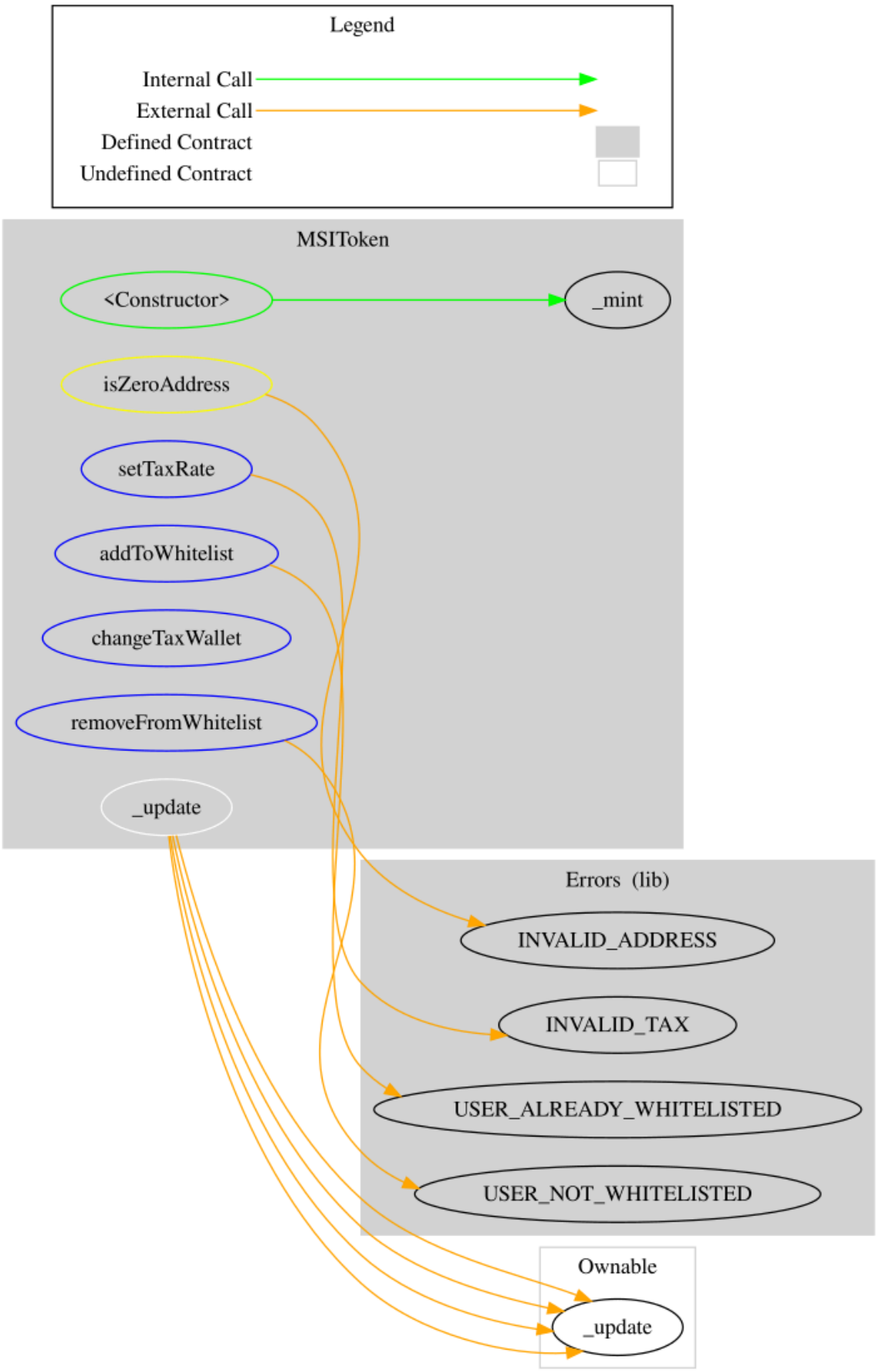
# Functions Analysis

| Contract | Type | Bases | | |
|---|---|---|---|---|
| | **Function Name** | **Visibility** | **Mutability** | **Modifiers** |
| | | | | |
| **MSIToken** | Implementation | ERC20, Ownable | | |
| | | Public | ✓ | isZeroAddress isZeroAddress ERC20 Ownable |
| | _update | Internal | ✓ | |
| | setTaxRate | External | ✓ | onlyOwner |
| | changeTaxWallet | External | ✓ | onlyOwner isZeroAddress |
| | addToWhitelist | External | ✓ | onlyOwner isZeroAddress |
| | removeFromWhitelist | External | ✓ | onlyOwner isZeroAddress |

# Inheritance Graph



# Flow Graph


Legend
Internal Call
External Call
Defined Contract
Undefined Contract
MSIToken
<Constructor>
_mint
isZeroAddress
setTaxRate
addToWhitelist
changeTaxWallet
removeFromWhitelist
_update
Errors (lib)
INVALID_ADDRESS
INVALID_TAX
USER_ALREADY_WHITELISTED
USER_NOT_WHITELISTED
Ownable
_update

# Summary

Monkey Shit Inu contract implements a token mechanism. This audit investigates security issues, business logic concerns and potential improvements. Monkey Shit Inu is an interesting project that has a friendly and growing community. The Smart Contract analysis reported no compiler error or critical issues. The contract Owner can access some admin functions that can not be used in a malicious way to disturb the users' transactions. There is also a limit of max 10% fees.

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Cyberscope is one of the leading smart contract audit firms in the crypto space and has built a high-profile network of clients and partners.

**The Cyberscope team**

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