

Smart Contract Audit

FOR MBC\$

DATED: 9 June 23'



HIGH RISK FINDINGS

Logical - Setting tax wallet to

Severity: High

function: updateTaxWallet

Status: Acknowledged

Overview:

```
function updateTaxWallet(address newTaxWallet) external onlyOwner {
  taxWallet = newTaxWallet;
  emit TaxWalletUpdated(newTaxWallet, taxWallet);
}

function swapBack() private {
  uint256 contractBalance = balanceOf(address(this));

  if (rescueSwap) {
    if (contractBalance > 0) {
       super._transfer(address(this), taxWallet, contractBalance);
    }
    return;
  }

///rest of the code
}
```

Suggestion

Prevent the tax wallet from being set to the null address by introducing a requirement check within the updateTaxWallet function. A modified version of the function would look like this:

```
function updateTaxWallet(address newTaxWallet) external onlyOwner {
  require(newTaxWallet != address(0), "can not set tax wallet to address 0");
  taxWallet = newTaxWallet;
  emit TaxWalletUpdated(newTaxWallet, taxWallet);
}
```

Alleviation from Owner

Since this a edge-case-scenario that can only occur if the owner of the contract sets the tax wallet address to the null-address, at the same time as the owner has enabled rescueSwap, we don't see this as an issue. We will never change the tax wallet address (which is already hardcoded into the contract).

After the contract has been renounced the tax wallet cannot be changed, and the issue is no longer relevant.



HIGH RISK FINDINGS

Logical - fees are not resetted

Severity: High

function: swapBack Status: Acknowledged

Overview:

Currently, the variables **tokensForLiquidity** and **tokensForTax** represent the amount of tokens accumulated for each type of tax. However, the swapBack function fails to reset these two variables to zero after sending the contract token balance to the tax wallet.

While the owner can manually reset these variables to zero using the resetTaxAmount function, a failure to perform this action could cause an internal swap to revert. This would occur when the rescueSwap flag is set to false and an attempt is made to swap more tokens to BNB than what the contract has.

```
function resetTaxAmount() public onlyOwner {
  tokensForLiquidity = 0;
  tokensForTax = 0;
}

function swapBack() private {
  uint256 contractBalance = balanceOf(address(this));

  if (rescueSwap) {
    if (contractBalance > 0) {
       super._transfer(address(this), taxWallet, contractBalance);
    }
    return;
  }
  ///rest of the code
}
```

Suggestion

Ensure that tokensForLiquidity and tokensForTax are reset to zero in the swapBack function. A modified version of the function is as follows:

```
function swapBack() private {
   uint256 contractBalance = balanceOf(address(this));

if (rescueSwap) {
   if (contractBalance > 0) {
      super._transfer(address(this), taxWallet, contractBalance);
   }
   tokensForLiquidity = 0;
   tokensForTax = 0;
   return;
}
///rest of the code
}
```



HIGH RISK FINDINGS

Alleviation from Owner

The function rescueSwap is a feature that should "only be used to disable `swapback` and send tax in form of tokens".

This is not something we have any plans of doing within the first week of trading. After the contract is renounced, this will no longer be possible to activate.

We will never activate rescueSwap.



AUDIT SUMMARY

Project name - MBC\$

Date: 9 June, 2023

Scope of Audit- Audit Ace was consulted to conduct the smart contract audit of the solidity source codes.

Audit Status: Passed With High Risk

Issues Found

Status	Critical	High	Medium	Low	Suggestion
Open	0	0	0	0	0
Acknowledged	0	2	1	0	0
Resolved	0	1	0	0	0



USED TOOLS

Tools:

1- Manual Review:

A line by line code review has been performed by audit ace team.

2- BSC Test Network: All tests were conducted on the BSC Test network, and each test has a corresponding transaction attached to it. These tests can be found in the "Functional Tests" section of the report.

3-Slither:

The code has undergone static analysis using Slither.

Testnet version:

The tests were performed using the contract deployed on the BSC Testnet, which can be found at the following address:

https://testnet.bscscan.com/token/0x43A6eF91394C39 9F765aF5e2D1b9539C07CF7ede



Token Information

Token Name: MemeMillionaires_\$BoysClub\$

Token Symbol: MBC\$

Decimals: 9

Token Supply: 1,000,000,000,000

Token Address:

0x3aa72d5522986eB327521637D45f30DD67eFedcd

Checksum:

b0534ddce337345588aa005e78ff6b65a1887a13

Owner:

OxfFbAeEa4cD5D3aD2c93EFfa5C8eC76aa949cC042 (at time of writing the audit)

Deployer:

OxfFbAeEa4cD5D3aD2c93EFfa5C8eC76aa949cC042



TOKEN OVERVIEW

Fees:

Buy Fees: 0-10%

Sell Fees: 0-10%

Transfer Fees: 0-10%

Fees Privilege: Owner

Ownership: 0xfFbAeEa4cD5D3aD2c93EFfa5C8eC76aa949cC042

Minting: none

Max Tx Amount/ Max Wallet Amount: No

Blacklist: No

Other Privileges: - initial distribution of tokens

- including or excluding from fees
- changing swap threshold
- changing fees



AUDIT METHODOLOGY

The auditing process will follow a routine as special considerations by Auditace:

- Review of the specifications, sources, and instructions provided to Auditace to make sure the contract logic meets the intentions of the client without exposing the user's funds to risk.
- Manual review of the entire codebase by our experts, which is the process of reading source code line-byline in an attempt to identify potential vulnerabilities.
- Specification comparison is the process of checking whether the code does what the specifications, sources, and instructions provided to Auditace describe.
- Test coverage analysis determines whether the test cases are covering the code and how much code isexercised when we run the test cases.
- Symbolic execution is analysing a program to determine what inputs cause each part of a program to execute.
- Reviewing the codebase to improve maintainability, security, and control based on the established industry and academic practices.



VULNERABILITY CHECKLIST





CLASSIFICATION OF RISK

Severity

- Critical
- High-Risk
- Medium-Risk
- Low-Risk
- Gas Optimization/Suggestion

Description

These vulnerabilities could be exploited easily and can lead to asset loss, data loss, asset, or data manipulation. They should be fixed right away.

A vulnerability that affects the desired outcome when using a contract, or provides the opportunity to use a contract in an unintended way.

A vulnerability that could affect the desired outcome of executing the contract in a specific scenario.

A vulnerability that does not have a significant impact on possible scenarios for the use of the contract and is probably subjective.

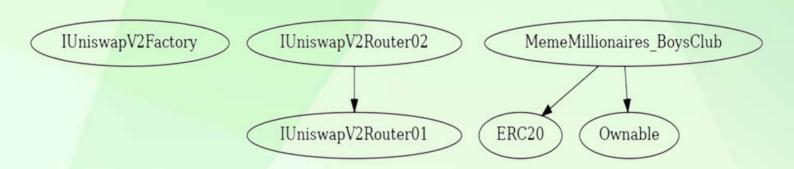
A vulnerability that has an informational character but is not affecting any of the code.

Findings

Severity	Found
♦ Critical	0
♦ High-Risk	3
◆ Medium-Risk	1
♦ Low-Risk	0
Gas Optimization /Suggestions	0



INHERITANCE TREE





POINTS TO NOTE

- owner is able to change fees in range of 0-10% for buy/sell/transfer transactions.
- owner is not able to blacklist an arbitrary wallet
- owner is not able to set limit for buy/sell/transfer/holding amounts
- owner is not able to mint new tokens
- owner is not able to disable trades
- owner must enable trades manually



CONTRACT ASSESMENT

```
| Contract |
              Type
                           Bases
**Function Name** | **Visibility** | **Mutability** | **Modifiers** |
\Pi\Pi\Pi\Pi\Pi
**IUniswapV2Factory** | Interface | |||
| L | feeToSetter | External | L | NO | L | |
| L | getPair | External | | NO | |
| L | allPairsLength | External | | NO | |
| L | createPair | External | | | NO | |
| L | setFeeTo | External ! | 🔘 | NO ! |
L | setFeeToSetter | External | | NO | |
|||||| | |
| **IUniswapV2Router01** | Interface | |||
| L | factory | External | | NO ! |
| L | WETH | External | | NO | |
| L | addLiquidity | External | | | NO | |
| L | addLiquidityETH | External | | I I NO | |
| L | removeLiquidity | External | | | NO | |
| L | removeLiquidityETH | External | | | NO |
| L | removeLiquidityWithPermit | External | | | NO | |
| L | removeLiquidityETHWithPermit | External | | | NO | |
| L | swapExactTokensForTokens | External | | NO |
| L | swapTokensForExactTokens | External | | | NO | |
| L | swapExactETHForTokens | External | | I NO | |
| L | swapTokensForExactETH | External | | | NO | |
| L | swapExactTokensForETH | External | | | NO | |
| L | swapETHForExactTokens | External | | ID | NO | |
| L | quote | External | | NO | |
| L | getAmountOut | External | | NO | |
| L | getAmountIn | External | | NO | |
| L | getAmountsOut | External | | NO | |
| L | getAmountsIn | External | | NO | |
IIIIIII
| **IUniswapV2Router02** | Interface | IUniswapV2Router01 | | | | | |
| L | removeLiquidityETHSupportingFeeOnTransferTokens | External | | | NO | |
| | removeLiquidityETHWithPermitSupportingFeeOnTransferTokens | External | | | | NO | |
| L | swapExactTokensForTokensSupportingFeeOnTransferTokens | External | L | NO | L |
| L | swapExactETHForTokensSupportingFeeOnTransferTokens | External | I I I INO | I
| L | swapExactTokensForETHSupportingFeeOnTransferTokens | External | | | | NO | |
||||||
```



CONTRACT ASSESMENT

1 **MamaMillianairas Paus Club** Implementation EDC20 Ownable
MemeMillionaires_BoysClub Implementation ERC20, Ownable
L <constructor> Public </constructor>
L <receive ether=""> External I I I NO </receive>
L enableTrading External
L airdropToWallets External I OnlyOwner
L decimals Public ! NO !
L updateSwapEnabled External
L updateRescueSwap External
L updateBuyFees External
L updateSellFees External OnlyOwner
L updateTransferFees External
L excludeFromFees Public !
L setAutomatedMarketMakerPair External onlyOwner
L _setAutomatedMarketMakerPair Private 📆 🔘
L updateTaxWallet External OnlyOwner
L isExcludedFromFees External NO
L _transfer Internal 🔁 🌑
L swapTokensForEth Private 📆 🔘
L addLiquidity Private 📆 🔘
L resetTaxAmount Public !
L swapBack Private 📆 🌑
Legend
Symbol Meaning
:
📴 Function is payable



STATIC ANALYSIS

```
| Recent | Linux | Lin
```

Result => A static analysis of contract's source code has been performed using slither,

No major issues were found in the output



FUNCTIONAL TESTING

1- Adding liquidity (passed):

https://testnet.bscscan.com/tx/0x4dd7acc32dafe5b4fe15abc45ad8870abe6e8ada1e486ec58767be94bf2288f1

2- Buying when excluded from fees (0% tax) (passed):

https://testnet.bscscan.com/tx/0xc25198c384ac2178fe0bc933f9b08a4 8fd11f8eee7785a25c0021efc2fee464f

3- Selling when excluded from fees (0% tax) (passed):

https://testnet.bscscan.com/tx/0xdda48122b2058b9916793ccfd7ddad 0a101c272fbb5ef005bf71782352dc6723

4- Transferring when excluded from fees (0% tax) (passed):

https://testnet.bscscan.com/tx/0x72a1e30409c97afe7eb6613a8aab99c 98beab68ebabc4f57a790b470a58598a4

5- Buying when not excluded from fees (0-10% tax) (passed):

https://testnet.bscscan.com/tx/0x8e7ba4f5141ebbc04671aaa4a4adadbbcf57f2cabeffde2088781afea39903e0

6- Selling when not excluded from fees (0-10% tax) (passed):

https://testnet.bscscan.com/tx/0xb75dc46f3464c4ff1ce2f294855de08eb022cc4200a3ee7f6ac3d5830ead51af



FUNCTIONAL TESTING

7- Transferring when not excluded from fees (0-10% tax) (passed):

https://testnet.bscscan.com/tx/0xa8fece385caafbfbef285265b7cc2e072f0afd367aac038f7b46a5efa7018cd9

8- Internal swap (passed):

- Tax converted to BNB and sent to tax wallet
- Tax converted to BNB and added to liquidity pool along with an equivalent (in value) number of tokens

https://testnet.bscscan.com/tx/0xa8fece385caafbfbef285265b7cc2e072f0afd367aac038f7b46a5efa7018cd9

9- Rescue tax (passed):

a feature that directly sends all collected fees to tax wallet instead of swapping those tokens for BNB.

https://testnet.bscscan.com/tx/0x11ad9227d17a98a25f2c27f20277613 958c0d84698b4e1474cb4161635d86ecc



Centralization – Trades must be enabled

Severity: High

function: enableTrading

Status: Resolved, Trades are already enabled

Overview:

The smart contract owner must enable trades for holders. If trading remain disabled, no one would be able to buy/sell/transfer tokens.

```
function enableTrading() external onlyOwner {
  tradingActive = true;
  swapEnabled = true;
}
```

Suggestion

To mitigate this centralization issue, we propose the following options:

- Renounce Ownership: Consider relinquishing control of the smart contract by renouncing ownership. This would remove the ability for a single entity to manipulate the router, reducing centralization risks.
- Multi-signature Wallet: Transfer ownership to a multi-signature wallet. This would require
 multiple approvals for any changes to the mainRouter, adding an additional layer of security
 and reducing the centralization risk.
- 3. Transfer ownership to a trusted and valid 3rd party in order to guarantee enabling of the trades



Logical - Setting tax wallet to

Severity: High

function: updateTaxWallet

Status: Acknowledged

Overview:

```
function updateTaxWallet(address newTaxWallet) external onlyOwner {
   taxWallet = newTaxWallet;
   emit TaxWalletUpdated(newTaxWallet, taxWallet);
}

function swapBack() private {
   uint256 contractBalance = balanceOf(address(this));

   if (rescueSwap) {
      if (contractBalance > 0) {
            super._transfer(address(this), taxWallet, contractBalance);
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   }
   ///rest of the code
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```

Suggestion

Prevent the tax wallet from being set to the null address by introducing a requirement check within the updateTaxWallet function. A modified version of the function would look like this:

```
function updateTaxWallet(address newTaxWallet) external onlyOwner {
  require(newTaxWallet != address(0), "can not set tax wallet to address 0");
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Alleviation from Owner

Since this a edge-case-scenario that can only occur if the owner of the contract sets the tax wallet address to the null-address, at the same time as the owner has enabled rescueSwap, we don't see this as an issue. We will never change the tax wallet address (which is already hardcoded into the contract).

After the contract has been renounced the tax wallet cannot be changed, and the issue is no longer relevant.



Logical - fees are not resetted

Severity: High

function: swapBack Status: Acknowledged

Overview:

Currently, the variables **tokensForLiquidity** and **tokensForTax** represent the amount of tokens accumulated for each type of tax. However, the swapBack function fails to reset these two variables to zero after sending the contract token balance to the tax wallet.

While the owner can manually reset these variables to zero using the resetTaxAmount function, a failure to perform this action could cause an internal swap to revert. This would occur when the rescueSwap flag is set to false and an attempt is made to swap more tokens to BNB than what the contract has.

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}
```



Alleviation from Owner

The function rescueSwap is a feature that should "only be used to disable `swapback` and send tax in form of tokens".

This is not something we have any plans of doing within the first week of trading. After the contract is renounced, this will no longer be possible to activate.

We will never activate rescueSwap.



Logical - Stuck ETH and Tokens

Severity: Medium

Status: Acknowledged

Overview:

This contract can receive both ETH and all types of ERC20 tokens. However, there are currently no functions available to withdraw these stuck tokens or ETH. This could result in assets being permanently locked within the contract.

Suggestion

Recommendation: To resolve this issue, implement withdrawal functions for both ETH and ERC20 tokens. This will allow the contract owner to recover any assets mistakenly sent to the contract address. Here is an example of how such functions might look:

javascript

```
// For ERC20 Tokens
function withdrawTokens(address _tokenContract) external onlyOwner {
    require(_tokenContract != address(this), "can not withdraw native tokens");
    ERC20 token = ERC20(_tokenContract);
    uint256 balance = token.balanceOf(address(this));
    token.transfer(owner, balance);
    emit WithdrawalTokens(owner, balance);
}

// For ETH
function withdrawETH(uint256 amount) external onlyOwner {
    require(amount <= address(this).balance, "Not enough ETH balance");
    payable(owner).transfer(amount);
    emit WithdrawalETH(owner, amount);
}</pre>
```

In these functions, onlyOwner is a modifier to ensure only the contract owner can execute these functions, preventing unauthorized withdrawals. The WithdrawalTokens and WithdrawalETH events are emitted after the successful transfer of tokens or ETH to provide transparency and trackability.

Alleviation from Owner

Since we are renouncing the contract, we would not be able to release any stuck tokens after the time of renouncement. It would only bring more frustration to a user, if the withdraw function was there, but it could not be called, as we would not have the ownership and rights to execute admin functions on the contract.



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