

Audit Report MetaDogeBattle

March 2022

Type BEP20

Network BSC

Address 0x0F89644714c61A4072CAB7A6116780a1d70aEDf4

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Contract Review

| Contract Name | MetaDogeBattle |
|------------------|--|
| Compiler Version | v0.8.4+commit.c7e474f2 |
| Optimization | 200 runs |
| Licence | None |
| Explorer | https://bscscan.com/token/0x0F89644714c61A4072C AB7A6116780a1d70aEDf4 |
| Symbol | MDOB |
| Decimals | 18 |
| Total Supply | 1,000,000,000 |
| Source | contract.sol |
| Domain | |

Audit Updates

| Initial Audit | 14th March 2022 |
|---------------|-----------------|
| Corrected | |



Contract Analysis

CriticalMediumMinorPass

| Severity | Code | Description |
|----------|------|---|
| • | ST | Contract Owner is not able to stop or pause transactions |
| • | OCTD | Contract Owner is not able to transfer tokens from specific address |
| • | OTUT | Owner Transfer User's Tokens |
| • | ELFM | Contract Owner is not able to increase fees more than a reasonable percent (25%) |
| • | ULTW | Contract Owner is not able to increase the amount of liquidity taken by dev wallet more than a reasonable percent |
| • | MT | Contract Owner is not able to mint new tokens |
| • | ВТ | Contract Owner is not able to burn tokens from specific wallet |
| • | ВС | Contract Owner is not able to blacklist wallets from selling |



ULTW - Unlimited Liquidity to Team Wallet

```
Criticality minor

Location contract.sol#L367
```

Description

The contract owner has the authority to transfer funds to the team wallet. These funds have been accumulated from fees collected from the contract. The owner may take advantage of it by calling sequentially the *manualSwap* and *manualSend* functions.

```
if (!inSwap && from != uniswapV2Pair && swapEnabled && contractTokenBalance > 0)
{
    swapTokensForEth(contractTokenBalance);
    uint256 contractETHBalance = address(this).balance;
    if(contractETHBalance > 0) {
        sendETHToFee(address(this).balance);
    }
}
```

```
function manualSwap() external onlyOwner {
    uint256 contractBalance = balanceOf(address(this));
    swapTokensForEth(contractBalance);
}

function manualSend() external onlyOwner {
    uint256 contractETHBalance = address(this).balance;
    sendETHToFee(contractETHBalance);
}
```

Recommendation

The contract could embody a check for not allowing swapping many tokens once, since this may cause a price volatility.

The team should carefully manage the private keys of the owner's account. We strongly recommend a powerful security mechanism that will prevent a single user



from accessing the contract admin functions. That risk can be prevented by temporarily locking the contract or renouncing ownership.



Contract Diagnostics

CriticalMediumMinor

| Severity | Code | Description |
|----------|------|--|
| • | L01 | Public Function could be Declared External |
| • | L02 | State Variables could be Declared Constant |
| • | L05 | Unused State Variable |
| • | L04 | Conformance to Solidity Naming Conventions |



L01 - Public Function could be Declared External

| Criticality | minor |
|-------------|--|
| Location | contract.sol#L119,125,189,193,197,201,209,214,218,223 and 5 more |

Description

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

```
excludeMultipleAccountsFromFees
toggleSwap
setFee
changeRouterVersion
setNewDevAddress
transferFrom
approve
allowance
transfer
...
```

Recommendation

Use the external attribute for functions never called from the contract



L02 - State Variables could be Declared Constant

| Criticality | minor |
|-------------|-------------------|
| Location | contract.sol#L102 |

Description

Constant state variables should be declared constant to save gas.

_previousOwner

Recommendation

Add the constant attribute to state variables that never change.



L05 - Unused State Variable

| Criticality | minor |
|-------------|-------------------|
| Location | contract.sol#L102 |

Description

There are segments that contain unused state variables.

_previousOwner

Recommendation

Remove unused state variables.



L04 - Conformance to Solidity Naming Conventions

| Criticality | minor |
|-------------|--|
| Location | contract.sol#L43,296,384,140,144,146,150,151,152 |

Description

Solidity defines a naming convention that should be followed. Rule exceptions:

- Allow constant variable name/symbol/decimals to be lowercase.
- Allow _ at the beginning of the mixed_case match for private variables and unused parameters.

```
_decimals
_symbol
_name
_taxFeeOnSell
_taxFeeOnBuy
_tTotal
_swapEnabled
devAddressUpdated
WETH
```

Recommendation

Follow the Solidity naming convention.

https://docs.soliditylang.org/en/v0.4.25/style-guide.html#naming-conventions



Contract Functions

| Contract | Туре | Bases | | |
|------------------------|--|------------|------------|-----------|
| | Function Name | Visibility | Mutability | Modifiers |
| | | | | |
| IERC20 | Interface | | | |
| | totalSupply | External | | - |
| | balanceOf | External | | - |
| | transfer | External | ✓ | - |
| | allowance | External | | - |
| | approve | External | ✓ | - |
| | transferFrom | External | ✓ | - |
| | | | | |
| Token | Interface | | | |
| | transferFrom | External | ✓ | - |
| | transfer | External | ✓ | - |
| | | | | |
| IUniswapV2Fa ctory | Interface | | | |
| | createPair | External | 1 | - |
| | feeTo | External | | - |
| | feeToSetter | External | | - |
| | getPair | External | | - |
| | allPairs | External | | - |
| | allPairsLength | External | | - |
| | setFeeTo | External | ✓ | - |
| | setFeeToSetter | External | 1 | - |
| | | | | |
| IUniswapV2Ro uter02 | Interface | | | |
| | swapExactTokensForETHSupportingF eeOnTransferTokens | External | ✓ | - |
| | factory | External | | - |



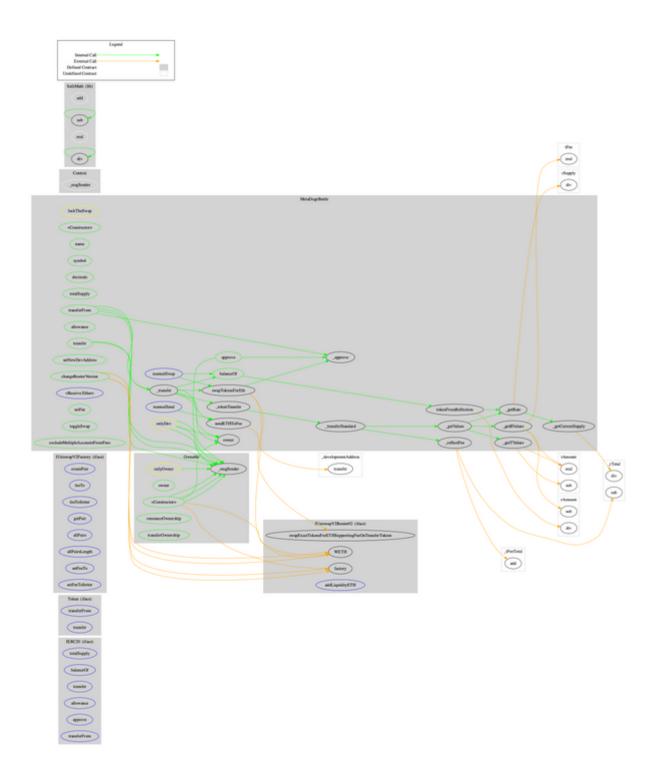
| | WETH | External | | - |
|--------------------|-----------------------------|--------------------------------|----------|-----------|
| | addLiquidityETH | External | Payable | - |
| | | | | |
| Context | Implementation | | | |
| | _msgSender | Internal | | |
| | | | | |
| SafeMath | Library | | | |
| | add | Internal | | |
| | sub | Internal | | |
| | sub | Internal | | |
| | mul | Internal | | |
| | div | Internal | | |
| | div | Internal | | |
| | | | | |
| Ownable | Implementation | Context | | |
| | <constructor></constructor> | Public | 1 | - |
| | owner | Public | | - |
| | renounceOwnership | Public | 1 | onlyOwner |
| | transferOwnership | Public | √ | onlyOwner |
| MetaDogeBattl e | Implementation | Context, IERC20, Ownable | | |
| | <constructor></constructor> | Public | ✓ | - |
| | name | Public | | - |
| | symbol | Public | | - |
| | decimals | Public | | - |
| | totalSupply | Public | | - |
| | balanceOf | Public | | - |
| | transfer | Public | 1 | - |
| | allowance | Public | | - |
| | approve | Public | ✓ | - |
| | transferFrom | Public | 1 | - |
| | tokenFromReflection | Private | | |
| | _approve | Private | 1 | |
| | _transfer | Private | 1 | |



| swapTokensForEth | Private | 1 | lockTheSwap |
|---------------------------------|----------|---------|-------------|
| sendETHToFee | Private | ✓ | |
| _tokenTransfer | Private | ✓ | |
| setNewDevAddress | Public | ✓ | onlyDev |
| _transferStandard | Private | 1 | |
| _reflectFee | Private | 1 | |
| changeRouterVersion | Public | 1 | onlyOwner |
| <receive ether=""></receive> | External | Payable | - |
| _getValues | Private | | |
| _getTValues | Private | | |
| _getRValues | Private | | |
| _getRate | Private | | |
| _getCurrentSupply | Private | | |
| manualSwap | External | 1 | onlyOwner |
| manualSend | External | 1 | onlyOwner |
| setFee | Public | 1 | onlyDev |
| toggleSwap | Public | 1 | onlyDev |
| excludeMultipleAccountsFromFees | Public | 1 | onlyDev |
| | | | |



Contract Flow





Domain Info

| Domain Name | metadogebattle.io |
|---------------------------|---|
| Registry Domain ID | 4e44f27758614169bbc1db042dd35994-DONUTS |
| Creation Date | 2022-01-04T08:52:13Z |
| Updated Date | 2022-01-14T07:03:59Z |
| Registry Expiry Date | 2023-01-04T08:52:13Z |
| Registrar WHOIS Server | whois.pavietnam.vn |
| Registrar URL | http://www.pavietnam.vn |
| Registrar | P.A Viet Nam Company Limited |
| Registrar IANA ID | 1649 |

The domain has been created 2 months before the creation of the audit. It will expire in 10 months.

There is no public billing information, the creator is protected by the privacy settings.



Summary

The Smart Contract analysis reported no compiler error or critical issues. The contract owner has the ability to transfer a lot of funds to the team's wallet. Other than that, 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 11% fees both on sales and buys.



Disclaimer

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About Cyberscope

Coinscope audit and K.Y.C. service has been rebranded to Cyberscope.

Coinscope is the leading early coin listing, voting and auditing authority firm. The audit process is analyzing and monitoring many aspects of the project. That way, it gives the community a good sense of security using an informative report and a generic score.

Cyberscope and Coinscope are aiming to make crypto discoverable and efficient globally. They provides all the essential tools to assist users draw their own conclusions.



The Cyberscope team

https://www.cyberscope.io