



Cyberscope

Audit Report

Mafia Ape

April 2022

Type BEP20

Network BSC

Address 0x3CC301b61BDD9ffEC0D44e5BDccacC7819534Bb3

Audited by © cyberscope

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Contract Review

| | |
|-------------------------|---|
| Contract Name | MafiaApe |
| Compiler Version | v0.8.4+commit.c7e474f2 |
| Optimization | 200 runs |
| Licence | |
| Explorer | https://bscscan.com/token/0x3CC301b61BDD9ffEC0D44e5BDccacC7819534Bb3 |
| Symbol | mAPE |
| Decimals | 18 |
| Total Supply | 1,000,000,000 |
| Domain | mafiaape.io |

Audit Updates

| | |
|----------------------|-----------------|
| Initial Audit | 23rd April 2022 |
| Corrected | 23rd April 2022 |

Source Files

| Filename | SHA256 |
|---|--|
| Context.sol | 4c155cc34bf55030ccc9de46ab76ceb2c66eafaf669bd38214f9a73215f88380 |
| interface/IUniswapV2Factory.sol | 9406d8ab7a2aca3e1207cd847049a2969ba5ec8ceb52e131e29585b9272404b1 |
| interface/IUniswapV2Router02.sol | fa569fddc50da2b4a58e6e368fbb9abc2ee05d0f1363257a24d3ab6c2be89e39 |
| library/IBEP20.sol | bafe38c0b7fef77b36027ae55c7e9cbd0d02bd6091748916198dbbc7d8ab0bcb |
| library/SafeMath.sol | 17b0bbbc562d95c2b358837a4427bcca734e917ba01f0b0cbc904fd0e912563e |
| MafiaApe.sol | 74f3281caa6015e7aaa0c052d9002fad7bf2b27a9a223b65ce8c969aba6e9896 |
| Ownable.sol | 111f14c1de81bd02139cea6cebf29d7129402ee9c26e03291cc2fde6297671b3 |

Contract Analysis

● Critical ● Medium ● Minor ● Pass

| 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 |
| ● | BT | Contract Owner is not able to burn tokens from specific wallet |
| ● | BC | Contract Owner is not able to blacklist wallets from selling |

ULTW - Unlimited Liquidity to Team Wallet

| | |
|-------------|-------------------|
| Criticality | minor |
| Location | contract.sol#L504 |

Description

The contract owner has the authority to transfer funds without limit to the team wallet. These funds have been accumulated from fees collected from the contract. The owner may take advantage of it by calling the `contractBalanceSwap` and the `contractBalanceSend` methods.

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

/**
 * @dev the Owner can send regarding the mAPE token's amount of contract
balance
 * this is for manual function
 * 0.1BNB will remain in contract balance for swap and transfer fees.
 */

function contractBalanceSend(uint256 amount, address payable _destAddr)
    external
    onlyOwner
{
    uint256 contractETHBalance = address(this).balance - 1 * 10**17;
    if (contractETHBalance > amount) {
        _destAddr.transfer(amount);
    }
}
```

Recommendation

The contract could embody a check for the maximum amount of funds that can be swapped. Since a huge amount may volatile the token's price.

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

● Critical ● Medium ● Minor

| Severity | Code | Description |
|----------|------|--|
| ● | FSA | Fixed Swap Address |
| ● | L01 | Public Function could be Declared External |
| ● | L02 | State Variables could be Declared Constant |
| ● | L04 | Conformance to Solidity Naming Conventions |
| ● | L05 | Unused State Variable |
| ● | L07 | Missing Events Arithmetic |
| ● | L09 | Dead Code Elimination |

FSA - Fixed Swap Address

| | |
|--------------------|-------------------|
| Criticality | minor |
| Location | contract.sol#L100 |

Description

The swap address is assigned once in the constructor and it can not be changed. The decentralized swaps sometimes create a new swap version or abandon the current. A contract that cannot change the swap address may not be able to catch-up the upgrade.

```
uniswapV2Pair = IUniswapV2Factory(_uniswapV2Router.factory())
    .createPair(address(this), _uniswapV2Router.WETH());
uniswapV2Router = _uniswapV2Router;
```

Recommendation

It could be better to allow the swap address mutation in case of future swap updates.

L01 - Public Function could be Declared External

| | |
|--------------------|---|
| Criticality | minor |
| Location | contracts/MafiaApe.sol#L160,164,210,254,276,306,333 |

Description

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

```
decreaseAllowance  
increaseAllowance  
transferFrom  
approve  
burn  
includeInFee  
excludeFromFee
```

Recommendation

Use the external attribute for functions never called from the contract.

L02 - State Variables could be Declared Constant

Criticality

minor

Location

contracts/MafiaApe.sol#L62

Description

Constant state variables should be declared constant to save gas.

```
swapEnabled
```

Recommendation

Add the constant attribute to state variables that never change.

L04 - Conformance to Solidity Naming Conventions

| | |
|--------------------|--|
| Criticality | minor |
| Location | contracts/MafiaApe.sol#L515,586,602,610,618,625,44,49,50,58,59 |

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.

```
_buybackWallet  
_marketingWallet  
_minBalance  
_taxFee  
_maxSoldAmount  
_setBuybackWalletAddress  
_setMarketingWalletAddress  
_setApplyContractFee  
_setMinBalance  
...
```

Recommendation

Follow the Solidity naming convention.

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

L05 - Unused State Variable

Criticality

minor

Location

contracts/MafiaApe.sol#L42

Description

There are segments that contain unused state variables.

```
_blockTime
```

Recommendation

Remove unused state variables.

L07 - Missing Events Arithmetic

Criticality

minor

Location

contracts/MafiaApe.sol#L586,602

Description

Detected missing events for critical arithmetic parameters. There are functions that have no event emitted, so it is difficult to track off-chain changes.

```
_minBalance = minValue  
_maxSoldAmount = maxvalue
```

Recommendation

Emit an event for critical parameter changes.

L09 - Dead Code Elimination

Criticality

minor

Location

contracts/MafiaApe.sol#L177

Description

Functions that are not used in the contract, and make the code's size bigger.

```
_mint
```

Recommendation

Remove unused functions.

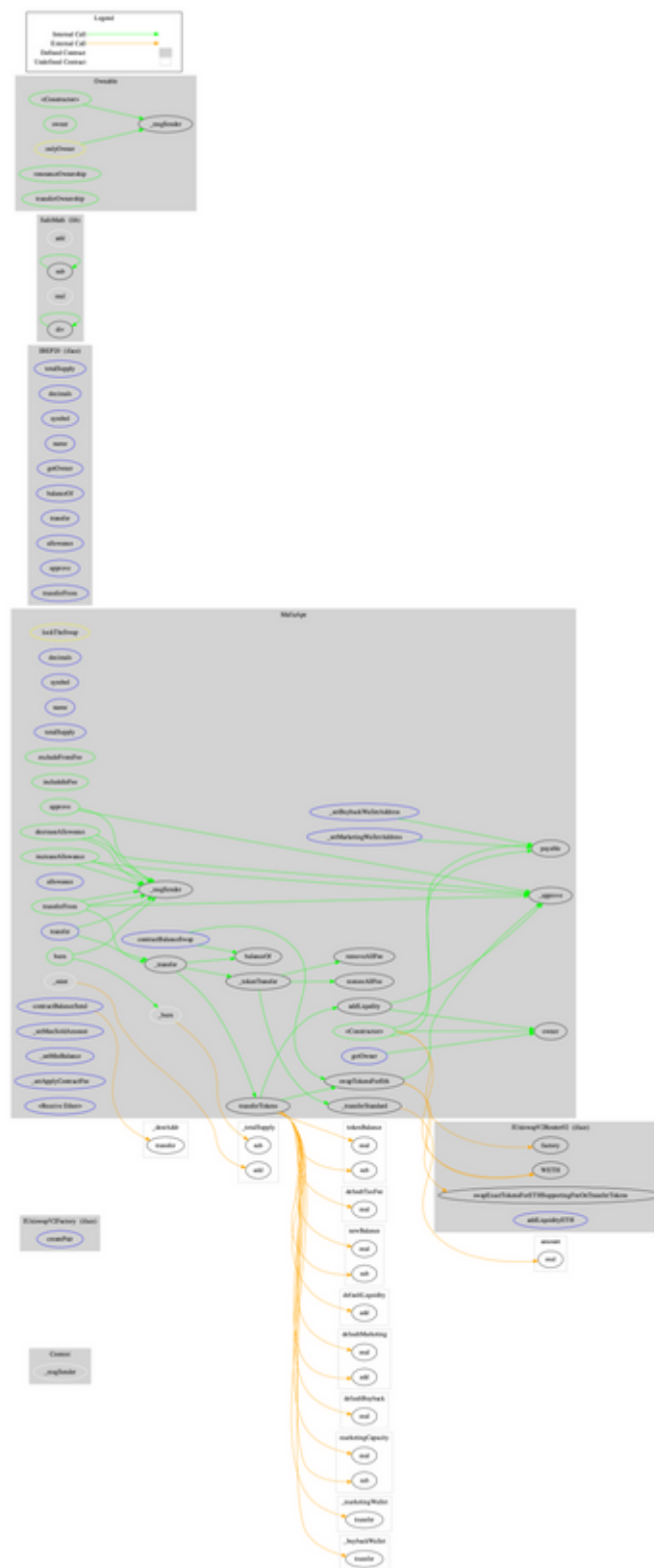
Contract Functions

| Contract | Type | Bases | | |
|---------------------------|--|------------|------------|-----------|
| | Function Name | Visibility | Mutability | Modifiers |
| | | | | |
| Context | Implementation | | | |
| | _msgSender | Internal | | |
| | | | | |
| IUniswapV2Factory | Interface | | | |
| | createPair | External | ✓ | - |
| | | | | |
| IUniswapV2Router02 | Interface | | | |
| | swapExactTokensForETHSupportingFeeOnTransferTokens | External | ✓ | - |
| | factory | External | | - |
| | WETH | External | | - |
| | addLiquidityETH | External | Payable | - |
| | | | | |
| IBEP20 | Interface | | | |
| | totalSupply | External | | - |
| | decimals | External | | - |
| | symbol | External | | - |
| | name | External | | - |
| | getOwner | External | | - |
| | balanceOf | External | | - |
| | transfer | External | ✓ | - |
| | allowance | External | | - |
| | approve | External | ✓ | - |
| | transferFrom | External | ✓ | - |
| | | | | |
| SafeMath | Library | | | |
| | add | Internal | | |
| | sub | Internal | | |

| | | | | |
|-----------------|---------------------|--------------------------------|---|-------------|
| | sub | Internal | | |
| | mul | Internal | | |
| | div | Internal | | |
| | div | Internal | | |
| | | | | |
| MafiaApe | Implementation | Context, IBEP20, Ownable | | |
| | <Constructor> | Public | ✓ | - |
| | getOwner | External | | - |
| | decimals | External | | - |
| | symbol | External | | - |
| | name | External | | - |
| | totalSupply | External | | - |
| | balanceOf | Public | | - |
| | excludeFromFee | Public | ✓ | onlyOwner |
| | includeInFee | Public | ✓ | onlyOwner |
| | _mint | Internal | ✓ | |
| | _burn | Internal | ✓ | |
| | burn | Public | ✓ | - |
| | transfer | External | ✓ | - |
| | allowance | External | | - |
| | approve | Public | ✓ | - |
| | transferFrom | Public | ✓ | - |
| | increaseAllowance | Public | ✓ | - |
| | decreaseAllowance | Public | ✓ | - |
| | _transfer | Internal | ✓ | |
| | _approve | Internal | ✓ | |
| | transferTokens | Private | ✓ | lockTheSwap |
| | swapTokensForEth | Private | ✓ | |
| | addLiquidity | Private | ✓ | |
| | contractBalanceSwap | External | ✓ | onlyOwner |
| | contractBalanceSend | External | ✓ | onlyOwner |
| | removeAllFee | Private | ✓ | |
| | restoreAllFee | Private | ✓ | |
| | _tokenTransfer | Private | ✓ | |

| | | | | |
|----------------|----------------------------|----------|---------|-----------|
| | _transferStandard | Private | ✓ | |
| | _setMaxSoldAmount | External | ✓ | onlyOwner |
| | _setMinBalance | External | ✓ | onlyOwner |
| | _setApplyContractFee | External | ✓ | onlyOwner |
| | _setMarketingWalletAddress | External | ✓ | onlyOwner |
| | _setBuybackWalletAddress | External | ✓ | onlyOwner |
| | <Receive Ether> | External | Payable | - |
| | | | | |
| Ownable | Implementation | Context | | |
| | <Constructor> | Public | ✓ | - |
| | owner | Public | | - |
| | renounceOwnership | Public | ✓ | onlyOwner |
| | transferOwnership | Public | ✓ | onlyOwner |

Contract Flow



Domain Info

| | |
|-------------------------------|---|
| Domain Name | mafiaape.io |
| Registry Domain ID | 2eb6e1fb6b1c4c848c185c5936142db1-DONUTS |
| Creation Date | 2022-04-20T15:22:03Z |
| Updated Date | 2022-04-21T11:02:06Z |
| Registry Expiry Date | 2023-04-20T15:22:03Z |
| Registrar WHOIS Server | whois.name.com |
| Registrar URL | http://www.name.com |
| Registrar | Name.com, Inc. |
| Registrar IANA ID | 625 |

The domain has been created 3 days before the creation of the audit. It will expire in 12 months.

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

Summary

Mafia Ape 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. The fees are fixed to 10%.

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>