



Audit Report

Metaneko

January 2022

Type	BEP20
Network	BSC
Address	0xB95a572A0B58774981E985914A6A4d356232Ed38
Audited by	© coinscope

Table of Contents

Table of Contents	1
Contract Review	3
Audit Updates	3
Contract Analysis	4
ST - Stop Transactions	5
Description	5
Recommendation	5
ELFM - Exceed Limit Fees Manipulation	6
Description	6
Recommendation	6
Contract Diagnostics	7
L01 - Public Function could be Declared External	8
Description	8
Recommendation	8
L04 - Conformance to Solidity Naming Conventions	9
Description	9
Recommendation	9
L09 - Dead Code Elimination	10
Description	10
Recommendation	10
L07 - Missing Events Arithmetic	11
Description	11
Recommendation	11
Contract Functions	12
Contract Flow	18
Domain Info	19

Summary	20
Disclaimer	21
About Coinscope	22

Contract Review

Contract Name	CoinToken
Compiler Version	v0.8.7+commit.e28d00a7
Optimization	200 runs
Licence	None
Explorer	https://bscscan.com/token/0xB95a572A0B58774981E985914A6A4d356232Ed38
Symbol	MTN
Decimals	9
Total Supply	10,000,000,000
Source	contract.sol
Domain	metaneko.io

Audit Updates

Initial Audit	7th January 2022
Corrected	

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

ST - Stop Transactions

Criticality	medium
Location	contract.sol#L663

Description

The contract owner has the authority to stop transactions for all users excluding the owner. The owner may take advantage of it by setting the `_maxTxAmount` to zero.

```
if(from != owner() && to != owner()) {  
    require(amount <= _maxTxAmount, "Transfer amount exceeds the maxTxAmount.");  
}
```

Recommendation

The contract could embody a check for not allowing setting the `_maxTxAmount` less than a reasonable amount. A suggested implementation could check that the maximum amount should be more than a fixed percentage of the total supply.

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.

ELFM - Exceed Limit Fees Manipulation

Criticality

critical

Location<https://bscscan.com/address/0x8983a6f5b70315f9373d39e14de5afeabf835588#code#L921,L925,L934>

Description

The contract owner has the authority to increase over the allowed limit of 25%. The owner may take advantage of it by calling the `setTaxFee` function with a high percentage value.

```
function setTaxFee(uint256 taxFee) external onlyOwner() {  
    _taxFee = taxFee;  
}
```

Recommendation

The contract could embody a check for the maximum acceptable value.

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
●	L01	Public Function could be Declared External
●	L04	Conformance to Solidity Naming Conventions
●	L09	Dead Code Elimination
●	L07	Missing Events Arithmetic

L01 - Public Function could be Declared External

Criticality	minor
Location	contract.sol#L956,L917,L913 and 23 more

Description

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

```
setBuyBackEnabled  
includeInFee  
excludeFromFee  
...
```

Recommendation

Use the external attribute for functions never called from the contract

L04 - Conformance to Solidity Naming Conventions

Criticality

minor

Location

contract.sol#L450,L437,L415 and 13 more

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.

```
_maxTxAmount  
_taxFee  
lp_poolAddress  
...
```

Recommendation

Follow the Solidity naming convention.

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

L09 - Dead Code Elimination

Criticality

minor

Location

contract.sol#L79,L75,L10 and 8 more

Description

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

```
mod
_msgData
addLiquidity
...
```

Recommendation

Remove unused functions.

L07 - Missing Events Arithmetic

Criticality	minor
Location	contract.sol#L943,L939,L934 and 3 more

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.

```
buyBackUpperLimit = buyBackLimit  
minimumTokensBeforeSwap = _minimumTokensBeforeSwap  
marketingFee = _marketingFee  
...
```

Recommendation

Emit an event for critical parameter changes.

Contract Functions

Contract	Type	Bases		
	Function Name	Visibility	Mutability	Modifiers
Context	Implementation			
	_msgSender	Internal		
	_msgData	Internal		
IERC20	Interface			
	totalSupply	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		
	mod	Internal		
	mod	Internal		
Address	Library			
	isContract	Internal		
	sendValue	Internal	✓	
	functionCall	Internal	✓	
	functionCall	Internal	✓	
	functionCallWithValue	Internal	✓	
	functionCallWithValue	Internal	✓	

	_functionCallWithValue	Private	✓	
Ownable	Implementation	Context		
	<Constructor>	Public	✓	-
	owner	Public		-
	renounceOwnership	Public	✓	onlyOwner
	transferOwnership	Public	✓	onlyOwner
	getUnlockTime	Public		-
	getTime	Public		-
	lock	Public	✓	onlyOwner
	unlock	Public	✓	-
IUniswapV2Factory	Interface			
	feeTo	External		-
	feeToSetter	External		-
	getPair	External		-
	allPairs	External		-
	allPairsLength	External		-
	createPair	External	✓	-
	setFeeTo	External	✓	-
	setFeeToSetter	External	✓	-
IUniswapV2Pair	Interface			
	name	External		-
	symbol	External		-
	decimals	External		-
	totalSupply	External		-
	balanceOf	External		-
	allowance	External		-
	approve	External	✓	-
	transfer	External	✓	-
	transferFrom	External	✓	-
	DOMAIN_SEPARATOR	External		-
	PERMIT_TYPEHASH	External		-

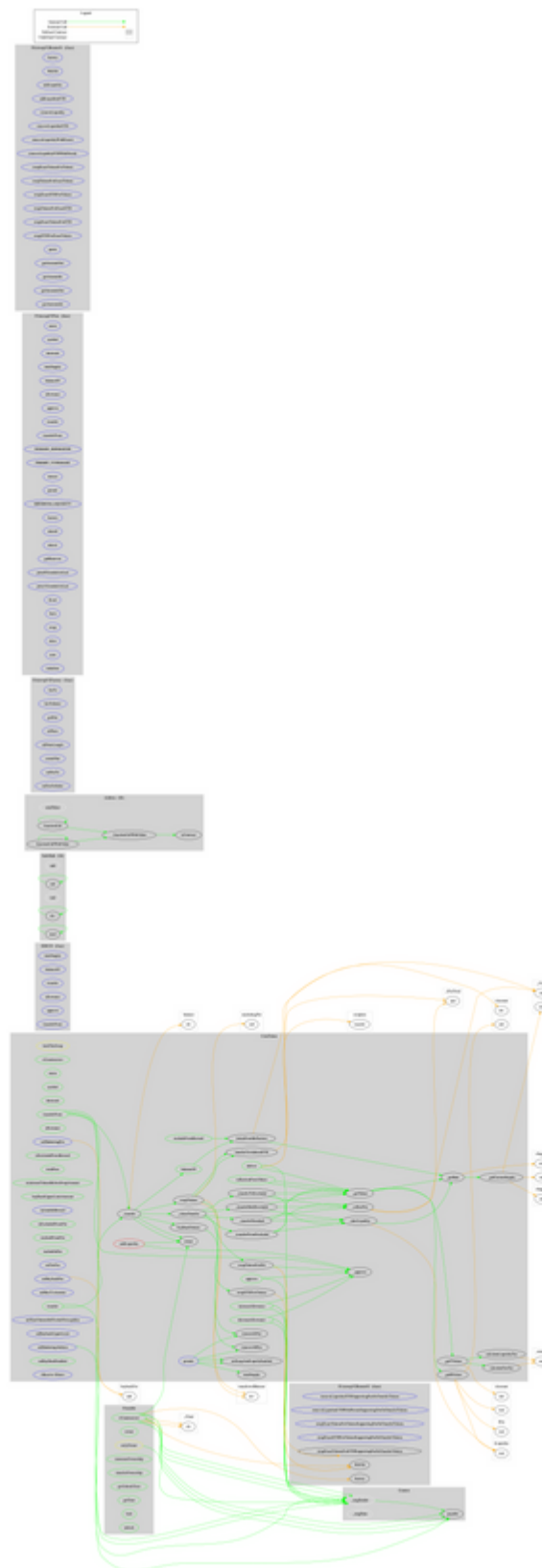
	nonces	External		-
	permit	External	✓	-
	MINIMUM_LIQUIDITY	External		-
	factory	External		-
	token0	External		-
	token1	External		-
	getReserves	External		-
	price0CumulativeLast	External		-
	price1CumulativeLast	External		-
	kLast	External		-
	burn	External	✓	-
	swap	External	✓	-
	skim	External	✓	-
	sync	External	✓	-
	initialize	External	✓	-
IUniswapV2Router01	Interface			
	factory	External		-
	WETH	External		-
	addLiquidity	External	✓	-
	addLiquidityETH	External	Payable	-
	removeLiquidity	External	✓	-
	removeLiquidityETH	External	✓	-
	removeLiquidityWithPermit	External	✓	-
	removeLiquidityETHWithPermit	External	✓	-
	swapExactTokensForTokens	External	✓	-
	swapTokensForExactTokens	External	✓	-
	swapExactETHForTokens	External	Payable	-
	swapTokensForExactETH	External	✓	-
	swapExactTokensForETH	External	✓	-
	swapETHForExactTokens	External	Payable	-
	quote	External		-
	getAmountOut	External		-
	getAmountIn	External		-
	getAmountsOut	External		-

	getAmountsIn	External		-
IUniswapV2Router02	Interface	IUniswapV2Router01		
	removeLiquidityETHSupportingFeeOnTransferTokens	External	✓	-
	removeLiquidityETHWithPermitSupportingFeeOnTransferTokens	External	✓	-
	swapExactTokensForTokensSupportingFeeOnTransferTokens	External	✓	-
	swapExactETHForTokensSupportingFeeOnTransferTokens	External	Payable	-
	swapExactTokensForETHSupportingFeeOnTransferTokens	External	✓	-
CoinToken	Implementation	Context, IERC20, Ownable		
	<Constructor>	Public	Payable	-
	name	Public		-
	symbol	Public		-
	decimals	Public		-
	totalSupply	Public		-
	balanceOf	Public		-
	transfer	Public	✓	-
	allowance	Public		-
	approve	Public	✓	-
	transferFrom	Public	✓	-
	increaseAllowance	Public	✓	-
	decreaseAllowance	Public	✓	-
	isExcludedFromReward	Public		-
	totalFees	Public		-
	minimumTokensBeforeSwapAmount	Public		-
	buyBackUpperLimitAmount	Public		-
	deliver	Public	✓	-
	reflectionFromToken	Public		-
	tokenFromReflection	Public		-
	excludeFromReward	Public	✓	onlyOwner

	includeInReward	External	✓	onlyOwner
	_approve	Private	✓	
	_transfer	Private	✓	
	swapTokens	Private	✓	lockTheSwap
	buyBackTokens	Private	✓	lockTheSwap
	swapTokensForEth	Private	✓	
	swapETHForTokens	Private	✓	
	addLiquidity	Private	✓	
	_tokenTransfer	Private	✓	
	_transferStandard	Private	✓	
	_transferToExcluded	Private	✓	
	_transferFromExcluded	Private	✓	
	_transferBothExcluded	Private	✓	
	_reflectFee	Private	✓	
	_getValues	Private		
	_getTValues	Private		
	_getRValues	Private		
	_getRate	Private		
	_getCurrentSupply	Private		
	_takeLiquidity	Private	✓	
	calculateTaxFee	Private		
	calculateLiquidityFee	Private		
	removeAllFee	Private	✓	
	restoreAllFee	Private	✓	
	isExcludedFromFee	Public		-
	excludeFromFee	Public	✓	onlyOwner
	includeInFee	Public	✓	onlyOwner
	setTaxFee	External	✓	onlyOwner
	setBuybackFee	External	✓	onlyOwner
	setMaxTxAmount	External	✓	onlyOwner
	setMarketingFee	External	✓	onlyOwner
	setNumTokensSellToAddToLiquidity	External	✓	onlyOwner
	setBuybackUpperLimit	External	✓	onlyOwner
	setMarketingAddress	External	✓	onlyOwner
	setSwapAndLiquifyEnabled	Public	✓	onlyOwner

	setBuyBackEnabled	Public	✓	onlyOwner
	presale	External	✓	onlyOwner
	transferToAddressETH	Private	✓	
	<Receive Ether>	External	Payable	-

Contract Flow



Domain Info

Domain Name	metaneko.io
Registry Domain ID	cda1f404eee1440789857f4820234e5f-DONUTS
Creation Date	2022-01-03T08:01:49Z
Updated Date	2022-01-03T08:02:06Z
Registry Expiry Date	2023-01-03T08:01:49Z
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 4 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

Metaneko is a meme token that has been inspired by Maneki, the prosperity cat of Japan. The token has a friendly and growing community. There are some functions that can be abused by the owner, like manipulating fees and indirectly stopping the transactions. A multi-wallet signing pattern will provide security against potential hacks. Temporarily locking the contract or renouncing ownership will eliminate all the contract threats.

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



The Coinscope.co team

<https://www.coinscope.co>