



Audit Report

Metaking

December 2021

Type BEP20

Address 0x4a7c3e4598fe45096accde1ffaa010336d5fc1d4

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Contract Review

Contract Name	Metaking
Compiler Version	v0.8.7+commit.e28d00a7
Optimization	200 runs
Licence	MIT
Explorer	https://bscscan.com/token/0x4a7c3e4598fe45096accde1ffaa010336d5fc1d4
Symbol	MTK
Decimals	18
Total Supply	100,000,000,000
Website	https://metakingtoken.org/

Audit Updates

Initial Audit	20th of December 2021
Corrected	

Contract Analysis



The dev wallet takes half of the contract liquidity. That means that every time that the swap and liquify is triggered, the price will have a huge dip.

● Critical ● Medium ● Pass

Severity	Code	Description
●	MT	Contract Owner is not able to mint new tokens
●	BT	Contract Owner is not able to burn tokens from specific wallet
●	ELFM	Contract Owner is not able to increase fees more than a reasonable percent (10%)
●	ST	Contract Owner is not able to stop or pause transactions
●	OCTD	Contract Owner is not able to transfer tokens from specific address
●	ULTW	Contract Owner is not able to increase the amount of liquidity taken by dev wallet more than a reasonable percent
●	BC	Contract Owner is not able to blacklist wallets from selling

LFM - Exceed Limit Fees Manipulation

Criticality	medium
Location	https://bscscan.com/address/0x4a7c3e4598fe45096accde1ffaa010336d5fc1d4#code#L1165,L1171,L1177

Description

The contract owner has the authority to increase total fees to the maximum value of 20%. The owner may take advantage of it by calling the `updateMarketingFee` function with a high percentage value like 20.

```
function setMarketingFee(uint256 marketingF) external onlyOwner {  
    _marketingFee = marketingF;  
    totalFeesTax = _taxFee.add(_marketingFee).add(_liquidityFee);  
    require(totalFeesTax <= 20, "max 20%");  
}
```

Recommendation

The contract could decrease the value of total fees to a smaller 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.

LTW - Liquidity to Team Wallet

Criticality

high

Location<https://bscscan.com/address/0x4a7c3e4598fe45096accde1ffaa010336d5fc1d4#code#L1000>

Description

The contract owner has the authority to transfer funds to the team wallet. These funds have been swapped from the swap & liquify feature. The owner may take advantage of it by setting a high fee to the marketingFee variable. With the current fees, the dev wallet would drain more than 65% of the token's liquidity everytime.

```
if (_marketingFee > 0) {  
    swapAndSendMarketing(contractTokenBalance.mul(_marketingFee).div(_liquidityFee.add(_marketingFee)));  
}
```

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

Pass	Name
✓	Integer Underflow
✓	Parity Multisig Bug
✓	Callstack Depth Attack
✓	Transaction-Ordering Dependency
✓	Timestamp Dependency
✓	Re-Entrancy

Contract Functions

Contract	Type	Bases		
	Function Name	Visibility	Mutability	Modifiers
Context	Implementation			
	_msgSender	Internal		
	_msgData	Internal		
Ownable	Implementation	Context		
		Public	✓	-
	owner	Public		-
	renounceOwnership	Public	✓	onlyOwner
	transferOwnership	Public	✓	onlyOwner
	getUnlockTime	Public		-
	lock	Public	✓	onlyOwner
	unlock	Public	✓	-

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	✓	
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	✓	-
Metaking	Implementation	Context, IERC20, Ownable		
		Public	✓	-
	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		-
	deliver	Public	✓	-

	reflectionFromToken	Public		-
	tokenFromReflection	Public		-
	excludeFromReward	Public	✓	onlyOwner
	includeInReward	External	✓	onlyOwner
	_transferBothExcluded	Private	✓	
		External	Payable	-
	_reflectFee	Private	✓	
	_getValues	Private		
	_getTValues	Private		
	_getRValues	Private		
	_getRate	Private		
	_getCurrentSupply	Private		
	_takeLiquidity	Private	✓	
	calculateTaxFee	Private		
	calculateLiquidityFee	Private		
	removeAllFee	Private	✓	
	restoreAllFee	Private	✓	
	isExcludedFromFee	Public		-

	_approve	Private	✓	
	_transfer	Private	✓	
	swapAndSendMarketing	Internal	✓	
	swapAndLiquify	Private	✓	
	swapTokensForEth	Private	✓	
	addLiquidity	Private	✓	
	_tokenTransfer	Private	✓	
	_transferStandard	Private	✓	
	takeMarketing	Private	✓	
	_transferToExcluded	Private	✓	
	_transferFromExcluded	Private	✓	
	excludeFromFee	Public	✓	onlyOwner
	includeInFee	Public	✓	onlyOwner
	setMarketingWallet	External	✓	onlyOwner
	setTaxFeePercent	External	✓	onlyOwner
	setMarketingFee	External	✓	onlyOwner
	setLiquidityFeePercent	External	✓	onlyOwner

	setNumTokensSellToAddToLiquidity	External	✓	onlyOwner
	setSwapAndLiquifyEnabled	Public	✓	onlyOwner

Contract Flow

Domain Info

Domain Name	METAKINGTOKEN.ORG
Registry Domain ID	D402200000018581405-LROR
Registrar WHOIS Server	whois.namecheap.com
Registrar URL	http://www.namecheap.com
Updated Date	2021-12-14T12:04:47Z
Creation Date	2021-12-14T06:24:39Z
Registry Expiry Date	2022-12-14T06:24:39Z
Registrar	NameCheap, Inc.
Registrar IANA ID	1068

The domain has been created around 7 days before the analysis of the audit. It is set for expiration in one year.

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

Summary

Metaking is a "play to earn" project. The team will try to utilise Metaverse and NFTs. The token has a friendly and growing community. The smart contract analysis reported no compiler errors. On the other hand there were 1 critical and 1 medium threat issue. There are some functions that can be abused by the owner, like manipulating fees and transferring funds to the team's wallet. The maximum total fee percentage that can be set is 20%. A multi-wallet signing pattern will provide security against potential hacks. Temporarily locking the contract or renouncing ownership will eliminate all the contract threats.

Disclaimer

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The Coinscope team disclaims any liability for the resulting losses.

About Coinscope

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.

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>