



Cyberscope

Audit Report

RelaxN

June 2022

Type BEP20

Network BSC

Address 0x5766c90619181f86b40ff57ff0f95e4bd709c612

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Contract Review

Contract Name	RTE
Compiler Version	v0.6.12+commit.27d51765
Optimization	200 runs
Licence	None
Explorer	https://bscscan.com/token/0x5766c90619181f86B40ff57fF0F95e4Bd709C612
Symbol	RTE
Decimals	9
Total Supply	1,000,000,000
Domain	relaxn.app

Source Files

Filename	SHA256
contract.sol	2a7eb29b52102086c2a4d81fe42ba901e17a1813d27c939f964f1f78edf26c88

Audit Updates

Initial Audit	19th June 2022
Corrected	23rd June 2022

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

Contract Diagnostics

● Critical ● Medium ● Minor

Severity	Code	Description
●	L01	Public Function could be Declared External
●	L02	State Variables could be Declared Constant
●	L04	Conformance to Solidity Naming Conventions
●	L05	Unused State Variable
●	L09	Dead Code Elimination
●	L13	Divide before Multiply Operation

L01 - Public Function could be Declared External

Criticality	minor
Location	contract.sol#L416,435,444,712,716,720,724,728,732,737,741,746,752,757,762,766,770,782,786,790,794,799,803,813

Description

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

```
getCurrentSupply  
includeInFee  
excludeFromFee  
unlockRte  
getWaitForGameTokenLocked  
getTimeTokenLocked  
getTeamTokenLocked  
unlockDev  
setEcosystemWalet  
...
```

Recommendation

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

L02 - State Variables could be Declared Constant

Criticality	minor
Location	contract.sol#L400,399,677,675,676,671

Description

Constant state variables should be declared constant to save gas.

```
_totalSupply  
_symbol  
_name  
_decimals  
_previousOwner  
_lockTime
```

Recommendation

Add the constant attribute to state variables that never change.

L04 - Conformance to Solidity Naming Conventions

Criticality

minor

Location

contract.sol#L487,488,505,527,678

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.

```
_taxFee  
WETH  
MINIMUM_LIQUIDITY  
PERMIT_TYPEHASH  
DOMAIN_SEPARATOR
```

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

contract.sol#L399,400

Description

There are segments that contain unused state variables.

```
_lockTime  
_previousOwner
```

Recommendation

Remove unused state variables.

L09 - Dead Code Elimination

Criticality

minor

Location

contract.sol#L361,321,331,346,356,268,295

Description

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

```
sendValue  
isContract  
functionCallWithValue  
functionCall  
_functionCallWithValue
```

Recommendation

Remove unused functions.

L13 - Divide before Multiply Operation

Criticality

minor

Location

contract.sol#L874,665

Description

Performing divisions before multiplications may cause lose of prediction.

```
_unlockPerMonth = _totalSupply.mul(5).div(100).mul(5).div(100)
feeAmount = tAmount.mul(_taxFee).div(100)
```

Recommendation

The multiplications should be prior to the divisions.

Contract Functions

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

	_functionCallWithValue	Private	✓	
Ownable	Implementation	Context		
	<Constructor>	Internal	✓	
	owner	Public		-
	renounceOwnership	Public	✓	onlyOwner
	transferOwnership	Public	✓	onlyOwner
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		-
	mint	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	✓	-
RTE	Implementation	Context, IERC20, Ownable		
	<Constructor>	Public	✓	-
	name	Public		-
	symbol	Public		-
	decimals	Public		-
	totalSupply	Public		-
	balanceOf	Public		-
	transfer	Public	✓	-
	allowance	Public		-
	approve	Public	✓	-
	transferFrom	Public	✓	-
	increaseAllowance	Public	✓	-
	decreaseAllowance	Public	✓	-
	setMarketingWalet	Public	✓	onlyOwner
	setEcosystemWalet	Public	✓	onlyOwner
	unlockDev	Public	✓	onlyOwner
	getTeamTokenLocked	Public		-
	getTimeTokenLocked	Public		-
	getWaitForGameTokenLocked	Public		-
	unlockRte	Public	✓	onlyOwner
	excludeFromFee	Public	✓	onlyOwner
	includeInFee	Public	✓	onlyOwner
	setTaxFeePercent	External	✓	onlyOwner

	getCurrentSupply	Public		-
	_transfer	Private	✓	
	_approve	Private	✓	
	_tokenTransfer	Private	✓	
	_transferStandard	Private	✓	
	_transferWithFee	Private	✓	

Contract Flow



Domain Info

Domain Name	relaxn.app
Registry Domain ID	4911D3663-APP
Creation Date	2022-06-04T14:03:00Z
Updated Date	2022-06-09T14:03:00Z
Registry Expiry Date	2023-06-04T14:03:00Z
Registrar WHOIS Server	whois.nic.google
Registrar URL	https://www.onlinenic.com/
Registrar	OnlineNIC, Inc.
Registrar IANA ID	82

The domain has been created in 12 months before the creation of the audit.

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

Summary

RelaxN 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.

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The Cyberscope team disclaims any liability for the resulting losses.

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 provide all the essential tools to assist users draw their own conclusions.



The Cyberscope team

<https://www.cyberscope.io>