



# Audit Report

## **\$E7EN**

January 2022

Type       BEP20

Network    BSC

SHA256    0x04A6A64f764313b036F244d0BB4880Ab58ABbd3c

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## About Coinscope

## Contract Review

<b>Contract Name</b>	Se7enToken
<b>Compiler Version</b>	v0.6.12+commit.27d51765
<b>Optimization</b>	200 runs
<b>Licence</b>	Unlicense
<b>Explorer</b>	<a href="https://bscscan.com/token/0x04A6A64f764313b036F244d0BB4880Ab58ABBd3c">https://bscscan.com/token/0x04A6A64f764313b036F244d0BB4880Ab58ABBd3c</a>
<b>Symbol</b>	S7N
<b>Decimals</b>	7
<b>Total Supply</b>	777,777,777
<b>Source</b>	contract.sol
<b>Domain</b>	se7entoken.com/

## Audit Updates

<b>Initial Audit</b>	05 th January 2022
<b>Corrected</b>	

# Contract Analysis

● Critical
 ● Medium
 ● Minor
 ● Pass

Severity	Code	Description
<span style="color: orange;">●</span>	ST	Contract Owner is not able to stop or pause transactions
<span style="color: darkblue;">●</span>	OCTD	Contract Owner is not able to transfer tokens from specific address
<span style="color: darkblue;">●</span>	OTUT	Owner Transfer User's Tokens
<span style="color: darkblue;">●</span>	ELFM	Contract Owner is not able to increase fees more than a reasonable percent (25%)
<span style="color: darkblue;">●</span>	ULTW	Contract Owner is not able to increase the amount of liquidity taken by dev wallet more than a reasonable percent
<span style="color: darkblue;">●</span>	MT	Contract Owner is not able to mint new tokens
<span style="color: darkblue;">●</span>	BT	Contract Owner is not able to burn tokens from specific wallet
<span style="color: darkblue;">●</span>	BC	Contract Owner is not able to blacklist wallets from selling

## ST - Stop Transactions

Criticality	medium
Location	contract.sol#L776

### 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(!_isExcludedFromMaxTxn[from] && !_isExcludedFromMaxTxn[to])  
    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.

# 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

<b>Criticality</b>	minor
<b>Location</b>	contract.sol#L742,L720,L674 and 28 more

### Description

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

```
isExcludedFromFee  
claimTokens  
restoreBoomFactor  
...
```

### Recommendation

Use the external attribute for functions never called from the contract



## L04 - Conformance to Solidity Naming Conventions

**Criticality**

minor

**Location**

contract.sol#L491,L490,L487 and 2 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.

```
_boomFactor  
_maxTxAmount  
_taxFee  
...
```

### 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#L228,L212,L239 and 7 more

### Description

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

```
mod
_msgData
sendValue
...
```

### Recommendation

Remove unused functions.

## L07 - Missing Events Arithmetic

**Criticality**

minor

**Location**

contract.sol#L670,L666,L661

### 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.

```
_boomFactor = boomFactor  
_maxTxAmount = maxTxPercent ** _decimals  
_taxFee = taxFee
```

### Recommendation

Emit an event for critical parameter changes.

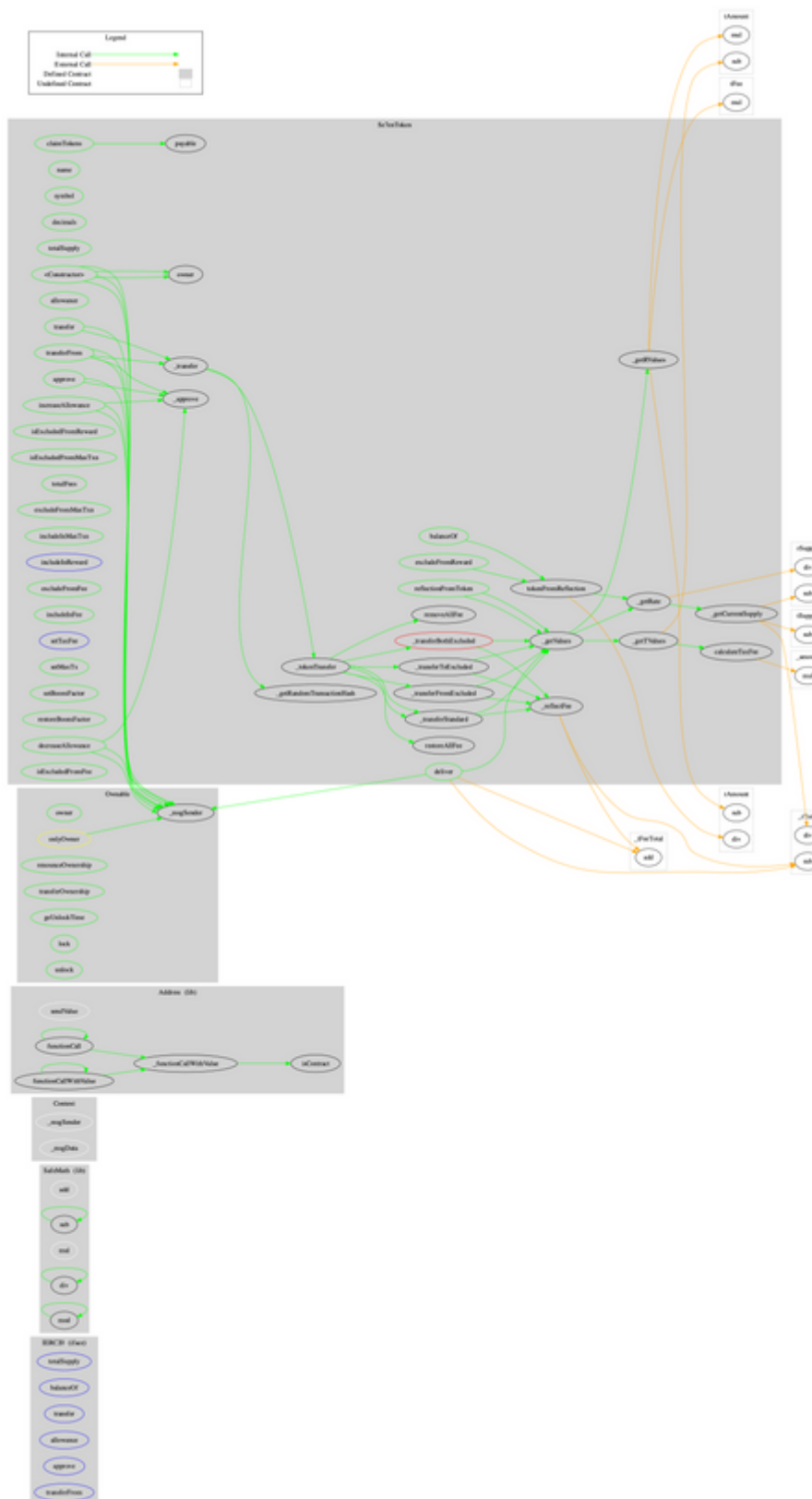
# Contract Functions

Contract	Type	Bases		
	Function Name	Visibility	Mutability	Modifiers
<b>IERC20</b>	Interface			
	totalSupply	External		-
	balanceOf	External		-
	transfer	External	✓	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	✓	-
<b>SafeMath</b>	Library			
	add	Internal		
	sub	Internal		
	sub	Internal		
	mul	Internal		
	div	Internal		
	div	Internal		
	mod	Internal		
	mod	Internal		
<b>Context</b>	Implementation			
	_msgSender	Internal		
	_msgData	Internal		
<b>Address</b>	Library			
	isContract	Internal		
	sendValue	Internal	✓	
	functionCall	Internal	✓	
	functionCall	Internal	✓	
	functionCallWithValue	Internal	✓	
	functionCallWithValue	Internal	✓	

	_functionCallWithValue	Private	✓	
<b>Ownable</b>	Implementation	Context		
	owner	Public		-
	renounceOwnership	Public	✓	onlyOwner
	transferOwnership	Public	✓	onlyOwner
	geUnlockTime	Public		-
	lock	Public	✓	onlyOwner
	unlock	Public	✓	-
<b>Se7enToken</b>	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	✓	-
	isExcludedFromReward	Public		-
	isExcludedFromMaxTxn	Public		-
	totalFees	Public		-
	deliver	Public	✓	-
	reflectionFromToken	Public		-
	tokenFromReflection	Public		-
	excludeFromReward	Public	✓	onlyOwner
	excludeFromMaxTxn	Public	✓	onlyOwner
	includeInMaxTxn	Public	✓	onlyOwner
	includeInReward	External	✓	onlyOwner
	_transferBothExcluded	Private	✓	

	excludeFromFee	Public	✓	onlyOwner
	includeInFee	Public	✓	onlyOwner
	setTaxFee	External	✓	onlyOwner
	setMaxTx	Public	✓	onlyOwner
	setBoomFactor	Public	✓	onlyOwner
	restoreBoomFactor	Public	✓	onlyOwner
	_reflectFee	Private	✓	
	_getValues	Private		
	_getTValues	Private		
	_getRValues	Private		
	_getRate	Private		
	_getCurrentSupply	Private		
	claimTokens	Public	✓	onlyOwner
	calculateTaxFee	Private		
	removeAllFee	Private	✓	
	restoreAllFee	Private	✓	
	isExcludedFromFee	Public		-
	_approve	Private	✓	
	_getRandomTransactionHash	Private		
	_transfer	Private	✓	
	_tokenTransfer	Private	✓	
	_transferStandard	Private	✓	
	_transferToExcluded	Private	✓	
	_transferFromExcluded	Private	✓	

# Contract Flow



## Domain Info

<b>Domain Name</b>	
<b>Registry Domain ID</b>	2654221934_DOMAIN_COM-VRSN
<b>Creation Date</b>	2021-11-11T15:36:37.00Z
<b>Updated Date</b>	0001-01-01T00:00:00.00Z
<b>Registry Expiry Date</b>	
<b>Registrar WHOIS Server</b>	whois.namecheap.com
<b>Registrar URL</b>	http://www.namecheap.com
<b>Registrar</b>	NAMECHEAP INC
<b>Registrar IANA ID</b>	1068

The domain has been created about 2 months before the creation of the audit.

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



## Summary

The tokens contain an interesting functionality. Every transaction has a 1/7 chance to not pay fees. The contract analysis reported no compiler errors and only 1 medium risk threat. The owner can indirectly stop transactions. He can also change fees but there is a limit of 25% total fees. 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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## 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>