Cyberscope

Audit Report

CryptoSyno

April 2022

Type	BEP20
Network	BSC
Address	0x6d1a4dea5A380C6Bb763BDd3ED7fB77aF6d480B5
Audited by	© cyberscope

Table of Contents

Contract Review

Contract Name	Cryptosyno
Compiler Version	v0.8.13+commit.abaa5c0e
Optimization	200 runs
Licence	MIT
Explorer	https://bscscan.com/token/0x6d1a4dea5A380C6Bb763BDd3ED7fB77aF6d480B5
Symbol	CSYN
Decimals	18
Total Supply	777
Domain	cryptosyno.io

Source Files

Filename	SHA256
contract.sol	62fb8666bd8b58939ece1149cc842a2d4388fa7f89b4a1988f6ad5aa9fb2f255

Audit Updates

Initial Audit	27th April 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#L838

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 `maxTransferingAmount` to zero.

```
require(
    amount <= maxTransferingAmount,
    "BEP20: amount exceed max sending limit"
);
```

Recommendation

The contract could embody a check for not allowing setting the maxTransferingAmount 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
●	L02	State Variables could be Declared Constant
●	L04	Conformance to Solidity Naming Conventions
●	L07	Missing Events Arithmetic
●	L09	Dead Code Elimination
●	L13	Divide before Multiply Operation

L01 - Public Function could be Declared External

Criticality	minor
Location	contract.sol#L246,254,423,427,431,435,439,449,458,467,476,493,506,525,530,535,544,549,561,608,622,630,638

Description

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

```
setmaxTransferingAmount
includeOrExcludeFrommaxTransferLimit
includeOrExcludeFromFee
excludeFromReward
reflectionFromToken
deliver
totalHolderDistribution
isExcludedFrommaxTransferLimit
isExcludedFromFee
...
```

Recommendation

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

L02 - State Variables could be Declared Constant

Criticality	minor
Location	contract.sol#L352,350,351,346,357,381,376,360,379,374,380,375

Description

Constant state variables should be declared constant to save gas.

```
slotMachineFeeOnSelling
slotMachineFee
redistributionFeeOnSelling
redistributionFee
maxFee
burnFeeOnSelling
burnFee
burnAddress
_tTotal
...
```

Recommendation

Add the constant attribute to state variables that never change.

L04 - Conformance to Solidity Naming Conventions

Criticality	minor
Location	contract.sol#L150,439,525,530,535,595,608,622,630,638,644,645,660,665,670,678

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.

```
_pair
_router
_newAddress
_state
_value
BuyFee
_amount
_address
_account
...
```

Recommendation

Follow the Solidity naming convention.
https://docs.soliditylang.org/en/v0.4.25/style-guide.html#naming-conventions

L07 - Missing Events Arithmetic

Criticality	minor
Location	contract.sol#L638

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.

```
maxTransferingAmount = _amount
```

Recommendation

Emit an event for critical parameter changes.

L09 - Dead Code Elimination

Criticality	minor
Location	contract.sol#L996,976

Description

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

```
swapTokensForEth
addLiquidity
```

Recommendation

Remove unused functions.

L13 - Divide before Multiply Operation

Criticality	minor
Location	contract.sol#L927,964

Description

Performing divisions before multiplications may cause lose of prediction.

```
tFee = tAmount.mul(_currentRedistributionFee).div(1e3)
tFeeburn = tAmount.mul((_currentburnFee)).div(1e3)
tFeeslot = tAmount.mul((_currentslotMachineFee)).div(1e3)
```

Recommendation

The multiplications should be prior to the divisions.

Contract Functions

Contract	Type	Bases		
	Function Name	Visibility	Mutability	Modifiers
IBEP20	Interface			
	totalSupply	External		-
	balanceOf	External		-
	transfer	External	✓	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	✓	-
IDexFactory	Interface			
	createPair	External	✓	-
IDexRouter	Interface			
	factory	External		-
	WETH	External		-
	addLiquidityETH	External	Payable	-
	swapExactTokensForETHSupportingFeeOnTransferTokens	External	✓	-
Context	Implementation			
	_msgSender	Internal		
	_msgData	Internal		
Ownable	Implementation	Context		
	<Constructor>	Public	✓	-
	owner	Public		-
	renounceOwnership	Public	✓	onlyOwner
	transferOwnership	Public	✓	onlyOwner
	_setOwner	Private	✓	

ReentrancyGuard	Implementation			
	<Constructor>	Public	✓	-
Cryptosyno	Implementation	Context, IBEP20, Ownable, Reentrancy Guard		
	<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		-
	isExcludedFromFee	Public		-
	isExcludedFrommaxTransferLimit	Public		-
	totalHolderDistribution	Public		-
	deliver	Public	✓	-
	reflectionFromToken	Public		-
	tokenFromReflection	Public		-
	includeInReward	External	✓	onlyOwner
	excludeFromReward	Public	✓	onlyOwner
	includeOrExcludeFromFee	Public	✓	onlyOwner
	includeOrExcludeFrommaxTransferLimit	Public	✓	onlyOwner
	setmaxTransferingAmount	Public	✓	onlyOwner
	BuyFee	External	✓	onlyOwner
	enableOrDisableFees	External	✓	onlyOwner
	enableOrDisablemaxTransferLimit	External	✓	onlyOwner

	setslotMachineAddress	External	✓	onlyOwner
	setRoute	External	✓	onlyOwner
	startTrading	External	✓	onlyOwner
	<Receive Ether>	External	Payable	-
	totalFeePerTx	Internal		
	_getRate	Private		
	_getCurrentSupply	Private		
	removeAllFee	Private	✓	
	setBuyFee	Private	✓	
	setSellFee	Private	✓	
	setNormalFee	Private	✓	
	_approve	Private	✓	
	_transfer	Private	✓	
	_tokenTransfer	Private	✓	
	_checkMaxTransferAmount	Private		
	_transferStandard	Private	✓	
	_transferToExcluded	Private	✓	
	_transferFromExcluded	Private	✓	
	_transferBothExcluded	Private	✓	
	_takeAllFee	Internal	✓	
	_reflectFee	Private	✓	
Utils	Library			
	swapTokensForEth	Internal	✓	
	addLiquidity	Internal	✓	
SafeMath	Library			
	add	Internal		
	sub	Internal		
	sub	Internal		
	mul	Internal		
	div	Internal		
	div	Internal		
	mod	Internal		
	mod	Internal		

Contract Flow
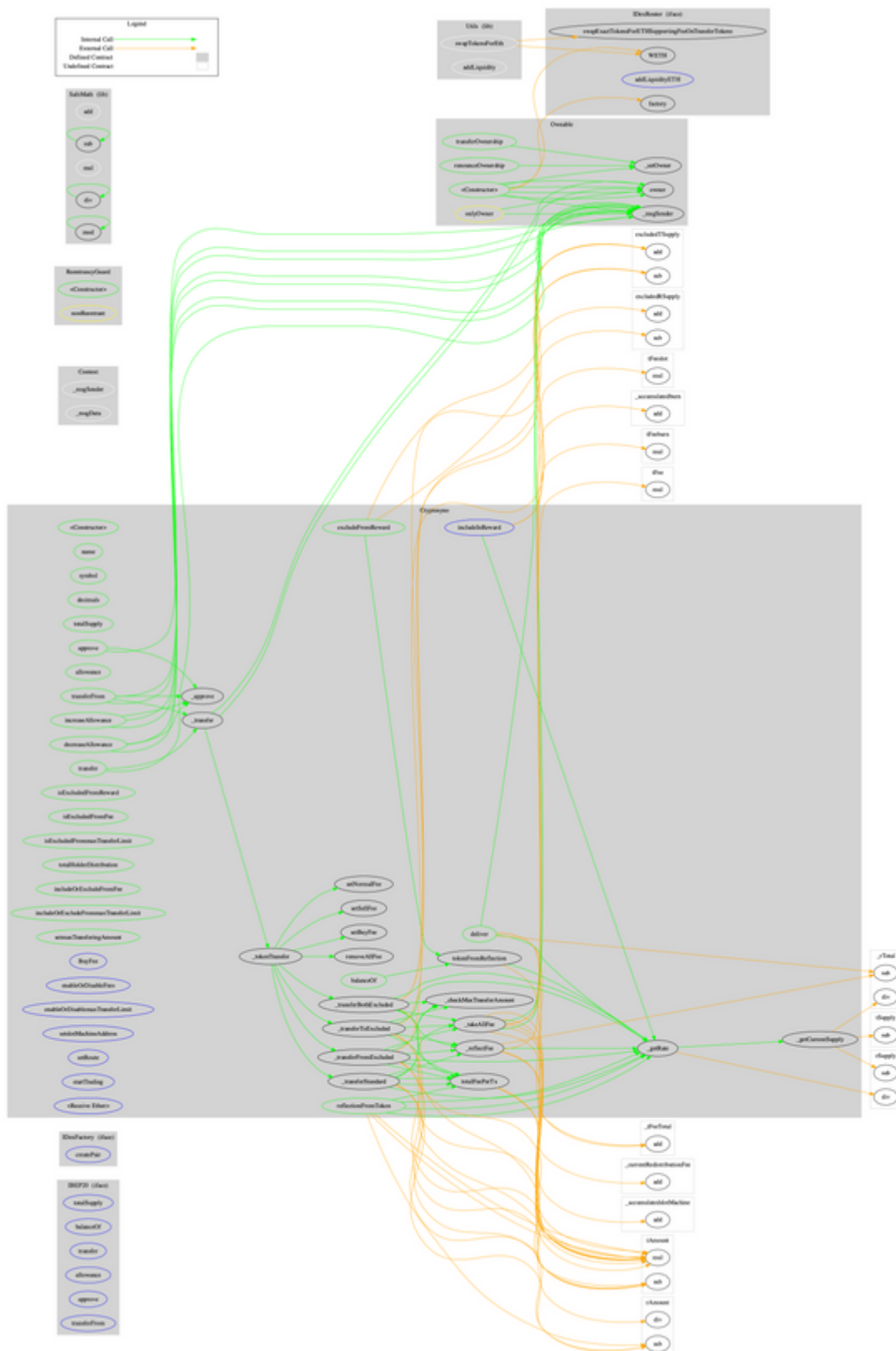
Domain Info

Domain Name	cryptosyno.io
Registry Domain ID	97b2055d2c3546f984f37b065a5cdb89-DONUTS
Creation Date	2021-06-20T19:27:43Z
Updated Date	2021-08-19T20:33:53Z
Registry Expiry Date	2022-06-20T19:27:43Z
Registrar WHOIS Server	whois.namecheap.com
Registrar URL	https://www.namecheap.com/
Registrar	NameCheap, Inc.
Registrar IANA ID	1068

The domain has been created 10 months before the creation of the audit. It will expire in about 2 months.

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

Summary

CryptoSyno is an interesting project that has a friendly and growing community. The Smart Contract analysis reported one medium severity issue. The contract owner can stop the transactions. Other than that, 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 1% for buys and 5% for sales.

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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