Cyberscope

Audit Report

Snoopy Inu

April 2022

Type	BEP20
Network	BSC
Address	0x0c157c3effc03c4d34aa734d2cbb3e19fe7ac65d
Audited by	© cyberscope

Table of Contents

Contract Review

Contract Name	SnoopyInu
Compiler Version	v0.8.7+commit.e28d00a7
Optimization	200 runs
Licence	MIT
Explorer	https://bscscan.com/token/0x0c157c3effc03c4d34aa734d2cbb3e19fe7ac65d
Symbol	SnoopyInu
Decimals	18
Total Supply	100,000,000
Domain	snoopyinu.best

Source Files

Filename	**SHA256**
contract.sol	661a2a0fb61ab6c20458545985b7bb5b6aa1b4778e08bac1d550f691be25a8ca

Audit Updates

Initial Audit	28th 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

ELFM - Exceed Limit Fees Manipulation

Criticality	minor
Location	contract.sol#L255

Description

As long as there is no sell transaction, the fees for each buy transaction is 99%. After the first sell transaction, the maximum fee percentage will be 16%, for both, sell and buy transactions.

```
            if(from == uniswapV2Pair && to != address(uniswapV2Router)) {


                if(launchAt.add(3) >= block.number || launchAt == 0) {
                    _redisFee = 0;
                    _taxFee = 99;
                } else {
                    _redisFee = _redisFeeOnBuy;
                    _taxFee = _taxFeeOnBuy;
                }

            }

            if (to == uniswapV2Pair && from != address(uniswapV2Router)) {
                _redisFee = _redisFeeOnSell;
                _taxFee = _taxFeeOnSell;

                if(liq1 == 0){
                    liq1 = liq1.add(1);
                    launchAt = block.number;
                }
            }
```

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.

ULTW - Unlimited Liquidity to Team Wallet

Criticality	minor
Location	contract.sol#L387, 393

Description

The contract owner has the authority to transfer funds without limit to the team wallet. These funds have been accumulated from fees collected from the contract. The owner may take advantage of it by calling the `manualswap` and `manualsend` functions.

```
function manualswap() external {
        require(_msgSender() == _developmentAddress || _msgSender() ==
_marketingAddress || _msgSender() == owner());
        uint256 contractBalance = balanceOf(address(this));
        swapTokensForEth(contractBalance);
    }
```

```
function manualsend() external {
        require(_msgSender() == _developmentAddress || _msgSender() ==
_marketingAddress || _msgSender() == owner());
        uint256 contractETHBalance = address(this).balance;
        sendETHToFee(contractETHBalance);
    }
```

Recommendation

The contract owner has renounced the ownership. However, `_marketingAddress` and `_marketingAddress` still have access to it.

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
●	FSA	Fixed Swap Address
●	L01	Public Function could be Declared External
●	L02	State Variables could be Declared Constant
●	L04	Conformance to Solidity Naming Conventions
●	L05	Unused State Variable
●	L07	Missing Events Arithmetic

FSA - Fixed Swap Address

Criticality	minor
Location	contract.sol#L169

Description

The swap address is assigned once in the constructor and it can not be changed. The decentralized swaps sometimes create a new swap version or abandon the current. A contract that cannot change the swap address may not be able to catch-up the upgrade.

```
IUniswapV2Router02 _uniswapV2Router =
IUniswapV2Router02(0x10ED43C718714eb63d5aA57B78B54704E256024E);
        uniswapV2Router = _uniswapV2Router;
        uniswapV2Pair = IUniswapV2Factory(_uniswapV2Router.factory())
            .createPair(address(this), _uniswapV2Router.WETH());
```

Recommendation

It could be better to allow the swap address mutation in case of future swap updates.

L01 - Public Function could be Declared External

Criticality	minor
Location	contract.sol#L110,116,183,187,191,195,203,208,212,217 and 6 more

Description

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

```
excludeMultipleAccountsFromFees
toggleSwap
setFee
setNewMarketingAddress
setNewDevAddress
rescueForeignTokens
transferFrom
approve
allowance
...
```

Recommendation

Use the external attribute for functions never called from the contract

L02 - State Variables could be Declared Constant

Criticality	minor
Location	contract.sol#L93

Description

Constant state variables should be declared constant to save gas.

```
_previousOwner
```

Recommendation

Add the constant attribute to state variables that never change.

L04 - Conformance to Solidity Naming Conventions

Criticality	minor
Location	contract.sol#L34,311,317,324,312,410,132,148,149,150 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.

```
_decimals
_symbol
_name
_tTotal
_swapEnabled
_amount
_to
_tokenAddr
marketingAddressUpdated
...
```

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#L93,127

Description

There are segments that contain unused state variables.

```
_tOwned
_previousOwner
```

Recommendation

Remove unused state variables.

L07 - Missing Events Arithmetic

Criticality	minor
Location	contract.sol#L399

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.

```
_redisFeeOnBuy = redisFeeOnBuy
```

Recommendation

Emit an event for critical parameter changes.

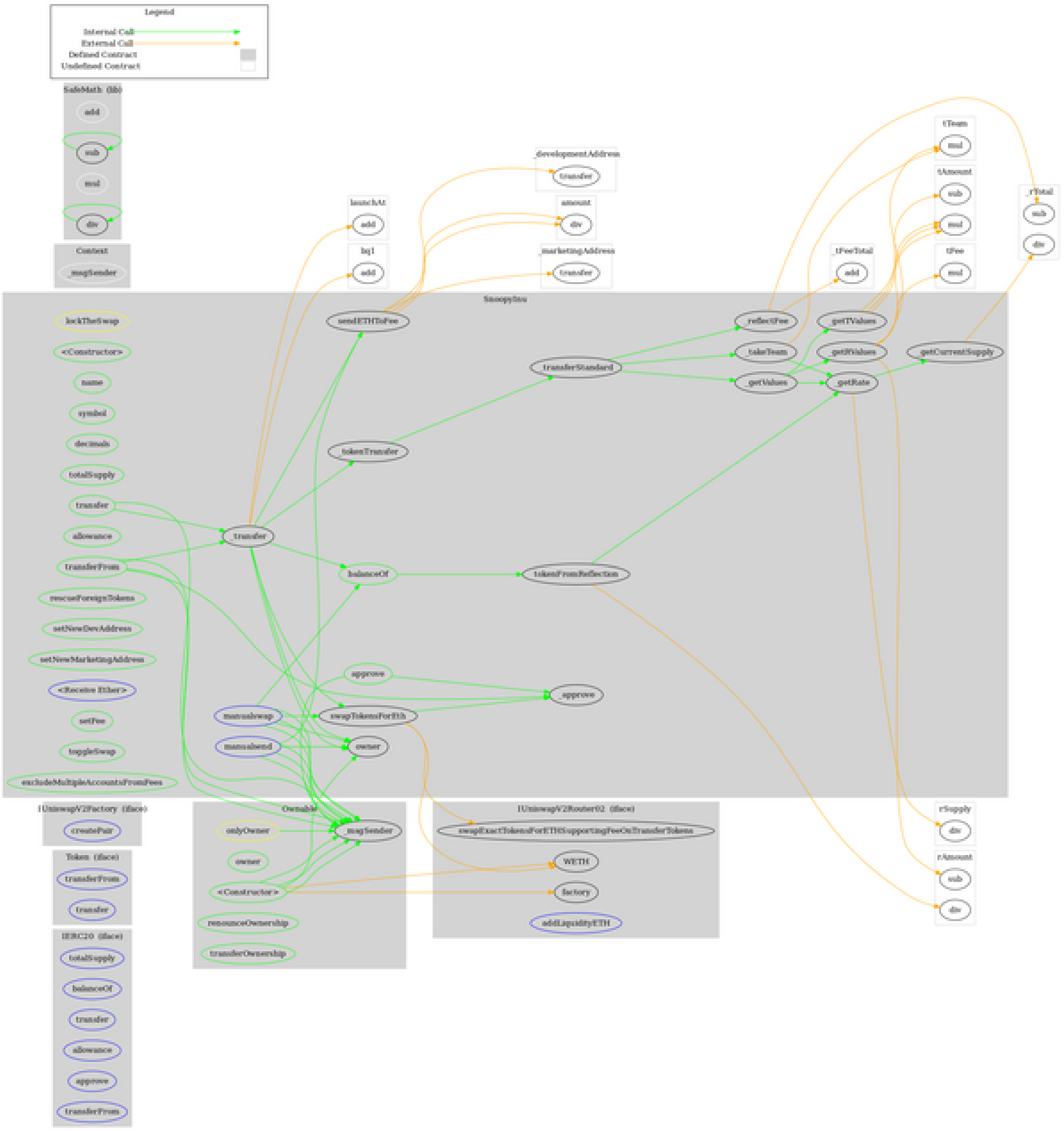
Contract Functions

Contract	Type	Bases		
	Function Name	Visibility	Mutability	Modifiers
IERC20	Interface			
	totalSupply	External		-
	balanceOf	External		-
	transfer	External	✓	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	✓	-
Token	Interface			
	transferFrom	External	✓	-
	transfer	External	✓	-
IUniswapV2Factory	Interface			
	createPair	External	✓	-
IUniswapV2Router02	Interface			
	swapExactTokensForETHSupportingFeeOnTransferTokens	External	✓	-
	factory	External		-
	WETH	External		-
	addLiquidityETH	External	Payable	-
Context	Implementation			
	_msgSender	Internal		
SafeMath	Library			
	add	Internal		
	sub	Internal		

	sub	Internal		
	mul	Internal		
	div	Internal		
	div	Internal		
Ownable	Implementation	Context		
	<Constructor>	Public	✓	-
	owner	Public		-
	renounceOwnership	Public	✓	onlyOwner
	transferOwnership	Public	✓	onlyOwner
SnoopyInu	Implementation	Context, IERC20, Ownable		
	<Constructor>	Public	✓	-
	name	Public		-
	symbol	Public		-
	decimals	Public		-
	totalSupply	Public		-
	balanceOf	Public		-
	transfer	Public	✓	-
	allowance	Public		-
	approve	Public	✓	-
	transferFrom	Public	✓	-
	tokenFromReflection	Private		
	_approve	Private	✓	
	_transfer	Private	✓	
	swapTokensForEth	Private	✓	lockTheSwap
	sendETHToFee	Private	✓	
	_tokenTransfer	Private	✓	
	rescueForeignTokens	Public	✓	onlyOwner
	setNewDevAddress	Public	✓	onlyOwner
	setNewMarketingAddress	Public	✓	onlyOwner
	_transferStandard	Private	✓	
	_takeTeam	Private	✓	

	_reflectFee	Private	✓	
	<Receive Ether>	External	Payable	-
	_getValues	Private		
	_getTValues	Private		
	_getRValues	Private		
	_getRate	Private		
	_getCurrentSupply	Private		
	manualswap	External	✓	-
	manualsend	External	✓	-
	setFee	Public	✓	onlyOwner
	toggleSwap	Public	✓	onlyOwner
	excludeMultipleAccountsFromFees	Public	✓	onlyOwner

Contract Flow



Domain Info

Domain Name	snoopyinu.best
Registry Domain ID	D293876704-CNIC
Creation Date	2022-04-26T20:19:28+00:00
Updated Date	2022-04-26T21:07:32+00:00
Registry Expiry Date	2023-04-26T23:59:59+00:00
Registrar WHOIS Server	whois.namesilo.com
Registrar URL	https://www.namesilo.com
Registrar	NameSilo, LLC
Registrar IANA ID	1479

The domain has been created 2 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

Snoopy Inu 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 has renounced the ownership. Hence there are no functions that can be called from the contract owner.

Disclaimer

All the content provided in this document is for general information only and should not be used as financial advice or a reason to buy any investment.

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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