Cyberscope

Audit Report

Label2Earn

February 2022

Type	BEP20
Network	BSC
Address	0x3289F53D7C4b950902B5aC77341eAB5F2A825568
Audited by	© cyberscope

Table of Contents

Contract Review

Contract Name	Label2Earn
Compiler Version	v0.8.5+commit.a4f2e591
Optimization	200 runs
Licence	MIT
Explorer	https://bscscan.com/token/0x3289F53D7C4b950902B5aC77341eAB5F2A825568
Symbol	L2E
Decimals	18
Total Supply	256,000,000
Source	contract.sol
Domain	label2earn.com

Audit Updates

Initial Audit	28th February 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

BC - Blacklisted Contracts

Criticality	medium
Location	contract.sol#L244

Description

The contract owner has the authority to stop contracts from transactions. The owner may take advantage of it by calling the `blacklistAddress` function.

```
   function _transferFrom(address sender, address recipient, uint256 amount)
internal returns (bool) {
        require(!_isBlacklisted[sender] && !_isBlacklisted[recipient],
'Blacklisted address');
```

Recommendation

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

L01 - Public Function could be Declared External

Criticality	minor
Location	contract.sol#L89,426,430

Description

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

```
transferForeignToken
getCirculatingSupply
transferOwnership
```

Recommendation

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

L02 - State Variables could be Declared Constant

Criticality	minor
Location	contract.sol#L154,153,163

Description

Constant state variables should be declared constant to save gas.

```
_totalSupply
WBNB
DEAD
```

Recommendation

Add the constant attribute to state variables that never change.

L04 - Conformance to Solidity Naming Conventions

Criticality	minor
Location	contract.sol#L104,394,405,410,417,421,430,153,154,156 and 14 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.

```
_isBlacklisted
_allowances
_balances
_maxWalletSize
_maxTxAmount
_totalSupply
_decimals
_symbol
_name
...
```

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#L376,394,421

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.

```
swapThreshold = _amount * (10 ** _decimals)
liquidityFeeSell = _liquidityFeeSell
_maxTxAmount = amount * (10 ** _decimals)
```

Recommendation

Emit an event for critical parameter changes.

Contract Functions

Contract	Type	Bases		
	Function Name	**Visibility**	**Mutability**	**Modifiers**
SafeMath	Library			
	add	Internal		
	sub	Internal		
	sub	Internal		
	mul	Internal		
	div	Internal		
	div	Internal		
IBEP20	Interface			
	totalSupply	External		-
	decimals	External		-
	symbol	External		-
	name	External		-
	getOwner	External		-
	balanceOf	External		-
	transfer	External	✓	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	✓	-
Auth	Implementation			
	<Constructor>	Public	✓	-
	isOwner	Public		-
	transferOwnership	Public	✓	onlyOwner
IDEXFactory	Interface			
	createPair	External	✓	-
IDEXRouter	Interface			

	factory	External		-
	WETH	External		-
	addLiquidity	External	✓	-
	addLiquidityETH	External	Payable	-
	swapExactTokensForTokensSupportingFeeOnTransferTokens	External	✓	-
	swapExactETHForTokensSupportingFeeOnTransferTokens	External	Payable	-
	swapExactTokensForETHSupportingFeeOnTransferTokens	External	✓	-
Label2Earn	Implementation	IBEP20, Auth		
	<Constructor>	Public	✓	Auth
	<Receive Ether>	External	Payable	-
	totalSupply	External		-
	decimals	External		-
	symbol	External		-
	name	External		-
	getOwner	External		-
	balanceOf	Public		-
	allowance	External		-
	approve	Public	✓	-
	approveMax	External	✓	-
	transfer	External	✓	-
	transferFrom	External	✓	-
	_transferFrom	Internal	✓	
	_basicTransfer	Internal	✓	
	shouldTakeFee	Internal		
	takeFee	Internal	✓	
	shouldSwapBack	Internal		
	swapBack	Internal	✓	swapping
	blacklistAddress	External	✓	onlyOwner
	checkTxLimit	Internal		
	setTxLimit	External	✓	onlyOwner
	setMaxWallet	External	✓	onlyOwner
	setIsFeeExempt	External	✓	onlyOwner

	setFees	External	✓	onlyOwner
	setFeeReceiver	External	✓	onlyOwner
	setRouter	External	✓	onlyOwner
	setReward	External	✓	onlyOwner
	setSwapBackSettings	External	✓	onlyOwner
	getCirculatingSupply	Public		-
	transferForeignToken	Public	✓	onlyOwner

Contract Flow
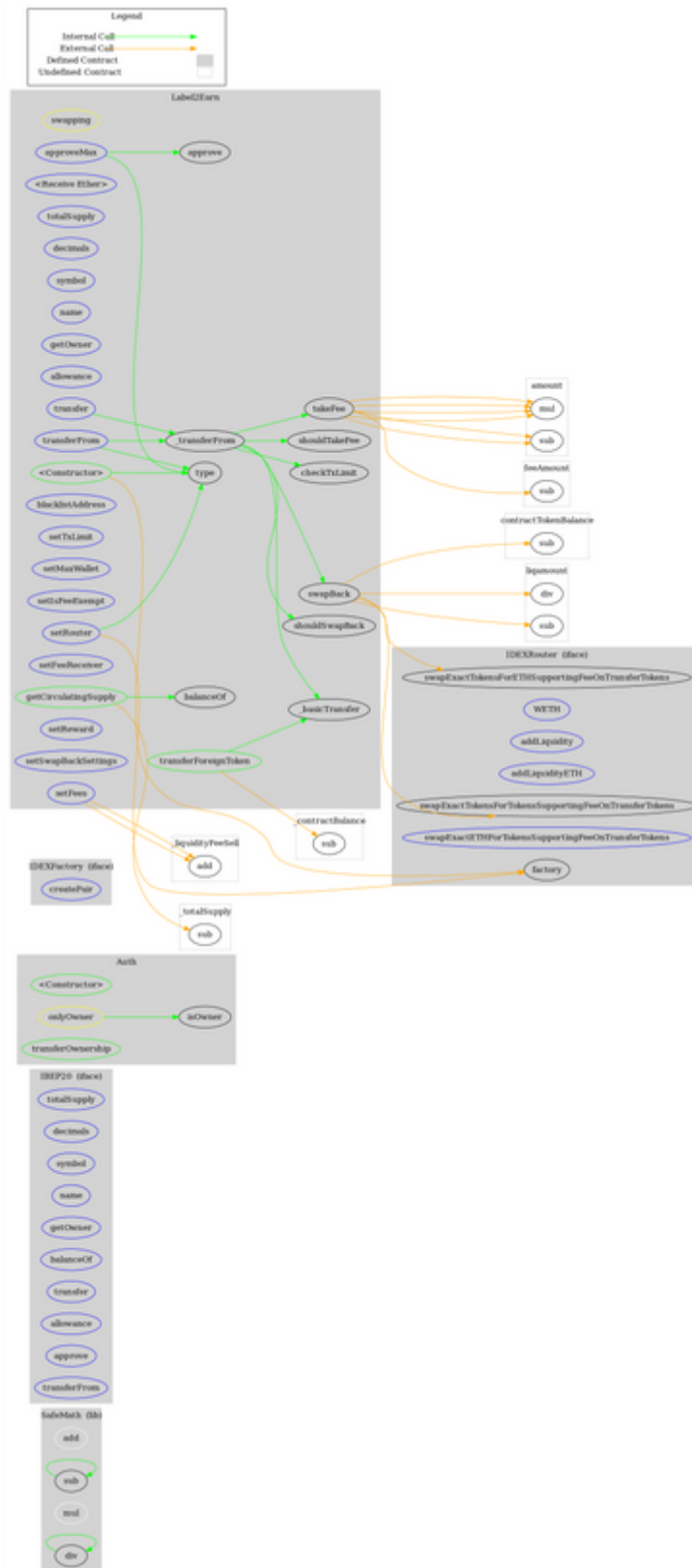
Domain Info

Domain Name	label2earn.com
Registry Domain ID	2663084459_DOMAIN_COM-VRSN
Creation Date	2021-12-21T19:06:06Z
Updated Date	2021-12-21T19:35:50Z
Registry Expiry Date	
Registrar WHOIS Server	whois.rrpproxy.net
Registrar URL	
Registrar	Key-Systems GmbH
Registrar IANA ID	269

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

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

Summary

Label2Earn (L2E) aims to produce accurate and large datasets for artificial intelligence (AI) systems. The Project has a friendly and growing community. The Smart Contract analysis reported no compiler errors and only one medium issue. The contract Owner can blacklist wallets from trading, other than that there is nothing that can not be used in a malicious way to disturb the users' transactions. There is also a limit of max 15% 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.

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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