



# Audit Report

## **Income Island**

January 2022

Type	BEP20
Network	BSC
Address	0x3a91A88Ef4bB813BB99EF5a745bcb56e3A3b403b
Audited by	© coinscope

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## Contract Review

<b>Contract Name</b>	INCOME
<b>Compiler Version</b>	v0.8.4+commit.c7e474f2
<b>Optimization</b>	200 runs
<b>Licence</b>	MIT
<b>Explorer</b>	<a href="https://bscscan.com/token/0x3a91A88Ef4bB813BB99EF5a745bcb56e3A3b403b">https://bscscan.com/token/0x3a91A88Ef4bB813BB99EF5a745bcb56e3A3b403b</a>
<b>Symbol</b>	INCOME
<b>Decimals</b>	18
<b>Total Supply</b>	1,000,000,000,000
<b>Source</b>	contract.sol
<b>Domain</b>	incomeisland.org

## Audit Updates

<b>Initial Audit</b>	13th January 2022
<b>Corrected</b>	

# Contract Analysis

● Critical
 ● Medium
 ● Minor
 ● Pass

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

## ST - Stop Transactions

Criticality	critical
Location	contract.sol#L2074

### 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 `maxSellTransactionAmount` to zero.

```
if(automatedMarketMakerPairs[to] && (!_isExcludedFromMaxTx[from]) &&
(!_isExcludedFromMaxTx[to])){
    require(amount <= maxSellTransactionAmount, "Sell transfer amount exceeds
the maxSellTransactionAmount.");
}
```

### 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.

## ELFM - Exceed Limit Fees Manipulation

<b>Criticality</b>	critical
<b>Location</b>	contract.sol#L1845

### Description

The contract owner has the authority to increase over the allowed limit of 25%. The owner may take advantage of it by calling the `setFee` function with a high percentage value.

```
function setFee(uint256 _bnbRewardFee, uint256 _liquidityFee, uint256
_marketingFee) public onlyOwner {
    BNBRewardsFee = _bnbRewardFee;
    liquidityFee = _liquidityFee;
    marketingFee = _marketingFee;

    totalFees = BNBRewardsFee.add(liquidityFee).add(marketingFee); // total fee
transfer and buy
}
```

### 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.

## BC - Blacklisted Contracts

<b>Criticality</b>	medium
<b>Location</b>	contract.sol#L2066

### Description

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

```
require(!_isBlacklisted[from] && !_isBlacklisted[to], '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
●	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#L2054,L2002,L1998 and 34 more

### Description

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

```
setSwapAndLiquifyEnabled  
dividendTokenBalanceOf  
withdrawableDividendOf  
...
```

### Recommendation

Use the external attribute for functions never called from the contract

## L04 - Conformance to Solidity Naming Conventions

**Criticality**

minor

**Location**

contract.sol#L1790,L1788,L2157 and 23 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.

```
BNBRewardsFee  
_isBlacklisted  
_to  
...
```

### Recommendation

Follow the Solidity naming convention.

<https://docs.soliditylang.org/en/v0.4.25/style-guide.html#naming-conventions>

## L09 - Dead Code Elimination

<b>Criticality</b>	minor
<b>Location</b>	contract.sol#L173,L187,L249 and 23 more

### Description

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

```
mul
div
trySub
...
```

### Recommendation

Remove unused functions.

## L07 - Missing Events Arithmetic

**Criticality**

minor

**Location**

contract.sol#L1952,L1857,L1853 and 1 more

### 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.

```
swapTokensAtAmount = _newAmount  
maxSellTransactionAmount = _maxSellTxAmount  
extraFeeOnSell = _extraFeeOnSell  
...
```

### Recommendation

Emit an event for critical parameter changes.

# Contract Functions

Contract	Type	Bases		
	Function Name	Visibility	Mutability	Modifiers
<b>IUniswapV2Router01</b>	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		-
<b>IUniswapV2Router02</b>	Interface	IUniswapV2Router01		
	removeLiquidityETHSupportingFeeOnTransferTokens	External	✓	-
	removeLiquidityETHWithPermitSupportingFeeOnTransferTokens	External	✓	-
	swapExactTokensForTokensSupportingFeeOnTransferTokens	External	✓	-

	swapExactETHForTokensSupportingFeeOnTransferTokens	External	Payable	-
	swapExactTokensForETHSupportingFeeOnTransferTokens	External	✓	-
<b>IUniswapV2Factory</b>	Interface			
	feeTo	External		-
	feeToSetter	External		-
	getPair	External		-
	allPairs	External		-
	allPairsLength	External		-
	createPair	External	✓	-
	setFeeTo	External	✓	-
	setFeeToSetter	External	✓	-
<b>SignedSafeMath</b>	Library			
	mul	Internal		
	div	Internal		
	sub	Internal		
	add	Internal		
<b>SafeMath</b>	Library			
	tryAdd	Internal		
	trySub	Internal		
	tryMul	Internal		
	tryDiv	Internal		
	tryMod	Internal		
	add	Internal		
	sub	Internal		
	mul	Internal		
	div	Internal		
	mod	Internal		
	sub	Internal		
	div	Internal		
	mod	Internal		

<b>SafeCast</b>	Library			
	toUint224	Internal		
	toUint128	Internal		
	toUint96	Internal		
	toUint64	Internal		
	toUint32	Internal		
	toUint16	Internal		
	toUint8	Internal		
	toUint256	Internal		
	toInt128	Internal		
	toInt64	Internal		
	toInt32	Internal		
	toInt16	Internal		
	toInt8	Internal		
	toInt256	Internal		
<b>Context</b>	Implementation			
	_msgSender	Internal		
	_msgData	Internal		
<b>IERC20</b>	Interface			
	totalSupply	External		-
	balanceOf	External		-
	transfer	External	✓	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	✓	-
<b>IERC20Metadata</b>	Interface	IERC20		
	name	External		-
	symbol	External		-
	decimals	External		-



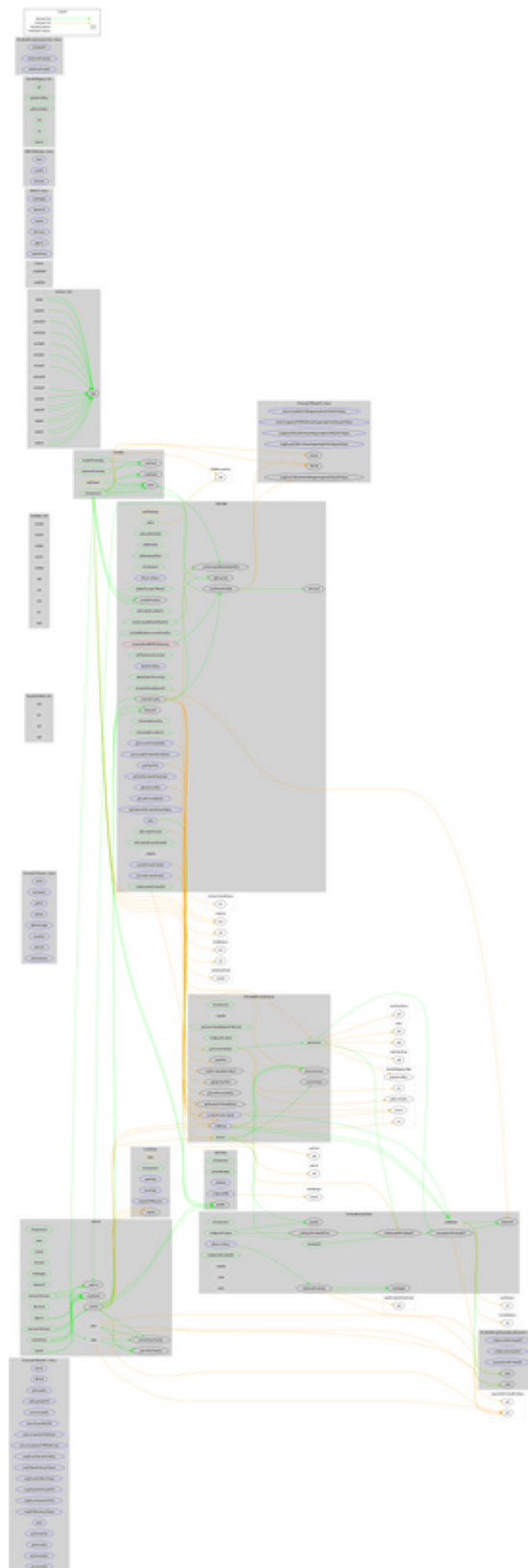
ERC20	Implementation	Context, IERC20, IERC20Met adata		
	<Constructor>	Public	✓	-
	name	Public		-
	symbol	Public		-
	decimals	Public		-
	totalSupply	Public		-
	balanceOf	Public		-
	transfer	Public	✓	-
	allowance	Public		-
	approve	Public	✓	-
	transferFrom	Public	✓	-
	increaseAllowance	Public	✓	-
	decreaseAllowance	Public	✓	-
	_transfer	Internal	✓	
	_mint	Internal	✓	
	_burn	Internal	✓	
	_approve	Internal	✓	
	_beforeTokenTransfer	Internal	✓	
	_afterTokenTransfer	Internal	✓	
Ownable	Implementation	Context		
	<Constructor>	Public	✓	-
	owner	Public		-
	renounceOwnership	Public	✓	onlyOwner
	transferOwnership	Public	✓	onlyOwner
	_setOwner	Private	✓	
IterableMapping	Library			
	get	Public		-
	getIndexOfKey	Public		-
	getKeyAtIndex	Public		-
	size	Public		-
	set	Public	✓	-

	remove	Public	✓	-
<b>DividendPayingTokenOptionalInterface</b>	Interface			
	withdrawableDividendOf	External		-
	withdrawnDividendOf	External		-
	accumulativeDividendOf	External		-
<b>DividendPayingTokenInterface</b>	Interface			
	dividendOf	External		-
	distributeDividends	External	Payable	-
	withdrawDividend	External	✓	-
<b>DividendPayingToken</b>	Implementation	ERC20, DividendPayingTokenInterface, DividendPayingTokenOptionalInterface		
	<Constructor>	Public	✓	ERC20
	<Receive Ether>	External	Payable	-
	distributeDividends	Public	Payable	-
	withdrawDividend	Public	✓	-
	_withdrawDividendOfUser	Internal	✓	
	dividendOf	Public		-
	withdrawableDividendOf	Public		-
	withdrawnDividendOf	Public		-
	accumulativeDividendOf	Public		-
	_transfer	Internal	✓	
	_mint	Internal	✓	
	_burn	Internal	✓	
	_setBalance	Internal	✓	

<b>INCOMEDividendTracker</b>	Implementation	DividendPayingToken, Ownable		
	<Constructor>	Public	✓	DividendPayingToken
	_transfer	Internal		
	_minimumTokenBalanceForReward	Public	✓	onlyOwner
	withdrawDividend	Public		-
	excludeFromDividends	External	✓	onlyOwner
	updateClaimWait	External	✓	onlyOwner
	getLastProcessedIndex	External		-
	getNumberOfTokenHolders	External		-
	getAccount	Public		-
	getAccountAtIndex	Public		-
	canAutoClaim	Private		
	setBalance	External	✓	onlyOwner
	process	Public	✓	-
	processAccount	Public	✓	onlyOwner
<b>SafeToken</b>	Implementation	Ownable		
	<Constructor>	Public	✓	-
	setSafeManager	Public	✓	onlyOwner
	withdraw	External	✓	-
	withdrawBNB	External	✓	-
<b>LockToken</b>	Implementation	Ownable		
	<Constructor>	Public	✓	-
	openTrade	External	✓	onlyOwner
	closeTrade	External	✓	onlyOwner
	includeToWhiteList	External	✓	onlyOwner
<b>INCOME</b>	Implementation	ERC20, Ownable, SafeToken, LockToken		
	setFee	Public	✓	onlyOwner
	setExtraFeeOnSell	Public	✓	onlyOwner

	setMaxSelltx	Public	✓	onlyOwner
	setMarketingWallet	Public	✓	onlyOwner
	<Constructor>	Public	✓	ERC20
	<Receive Ether>	External	Payable	-
	updateUniswapV2Router	Public	✓	onlyOwner
	excludeFromFees	Public	✓	onlyOwner
	setExcludeFromMaxTx	Public	✓	onlyOwner
	setExcludeFromAll	Public	✓	onlyOwner
	excludeMultipleAccountsFromFees	Public	✓	onlyOwner
	setAutomatedMarketMakerPair	Public	✓	onlyOwner
	setSWapToensAtAmount	Public	✓	onlyOwner
	blacklistAddress	External	✓	onlyOwner
	_setAutomatedMarketMakerPair	Private	✓	
	updateGasForProcessing	Public	✓	onlyOwner
	updateClaimWait	External	✓	onlyOwner
	getClaimWait	External		-
	getTotalDividendsDistributed	External		-
	isExcludedFromFees	Public		-
	isExcludedFromMaxTx	Public		-
	withdrawableDividendOf	Public		-
	dividendTokenBalanceOf	Public		-
	getAccountDividendsInfo	External		-
	getAccountDividendsInfoAtIndex	External		-
	processDividendTracker	External	✓	-
	claim	External	✓	-
	getLastProcessedIndex	External		-
	getNumberOfDividendTokenHolders	External		-
	excludeFromDividends	External	✓	onlyOwner
	setSwapAndLiquifyEnabled	Public	✓	onlyOwner
	_transfer	Internal	✓	open
	swapAndLiquify	Private	✓	lockTheSwap
	swapTokensForBnb	Private	✓	
	swapAndSendBNBToMarketing	Private	✓	
	addLiquidity	Private	✓	

# Contract Flow



## Domain Info

<b>Domain Name</b>	incomeisland.org
<b>Registry Domain ID</b>	D402200000017570625-LROR
<b>Creation Date</b>	2021-08-13T23:32:08Z
<b>Updated Date</b>	2021-10-13T03:53:06Z
<b>Registry Expiry Date</b>	2022-08-13T23:32:08Z
<b>Registrar WHOIS Server</b>	whois.ionos.com
<b>Registrar URL</b>	<a href="https://registrar.ionos.info/">https://registrar.ionos.info/</a>
<b>Registrar</b>	1&1 IONOS SE
<b>Registrar IANA ID</b>	83

The domain has been created 5 months before the creation of the audit. It will expire in 7 months.

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

## Summary

Income Island token is aiming to be the main currency for the Income Island metaverse. The token has a friendly and growing community. There are some functions that can be abused by the owner, like manipulating fees, blacklisting contracts and indirectly stopping the transactions. 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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The Coinscope team has audited this project for general information and only expresses their opinion based on similar projects and checks from popular diagnostic tools. Under no circumstances did Coinscope receive a payment to manipulate those results or change the awarding badge that we will be adding in our website.

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The Coinscope team disclaims any liability for the resulting losses.



## 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>