Cyberscope

Audit Report

ARABIANSHINJA

April 2022

Type	BEP20
Network	BSC
Address	0x74883D5c9C9C5C0BEF7458E71BA303609cCEC3bc
Audited by	© cyberscope

Table of Contents

Contract Review

Contract Name	ARABIANSHINJA
Compiler Version	v0.8.10+commit.fc410830
Optimization	5 runs
Licence	None
Explorer	https://bscscan.com/token/0x74883D5c9C9C5C0BEF7458E71BA303609cCEC3bc
Symbol	$ARABIANSHINJA
Decimals	18
Total Supply	1,000,000,000,000
Domain	arabianshibnobi.com

Source Files

Filename	**SHA256**
contract.sol	8224f04b191935c2b52a34c20ad32d9f6d54a8e561d913d794d61082b8a70cbe

Audit Updates

Initial Audit	27th April 2022
Corrected	30th April 2022

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

OTUT - Owner Transfer User's Tokens

Criticality	critical
Location	contract.sol#L936

Description

The contract owner has the authority to transfer the balance of a user’s contract to the owner’s contract. The owner may take advantage of it by calling the `airdrop` function.

```
function airdrop(address sender, address[] calldata recipients, uint256[]
calldata values) external onlyOwner {
    require(recipients.length == values.length, "Mismatch between Address and
token count");
    for (uint256 i = 0; i < recipients.length; i++) {
        _transfer(sender, recipients[i], values[i] * DECIMALS);
    }
}
```

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.

ELFM - Exceed Limit Fees Manipulation

Criticality	critical
Location	contract.sol#L696

Description

The contract owner has the authority to increase over the allowed limit of 25%. The owner may take advantage of it by setting the _treasuryFee to 99.

```
function setFees(uint256 _marketingFee, uint256 _devFee, uint256 _treasuryFee,
uint256 _liquidityFee, uint256 _rewardsFee, uint256 _sellFeeIncrease) public
onlyOwner{
    require(0 <= _rewardsFee && _rewardsFee <= 5, "Requested rewardsFee fee not
within acceptable range.");
    require(0 <= _liquidityFee && _liquidityFee <= 5 , "Requested liquidity fee
not within acceptable range.");
    require(0 <= _marketingFee && _marketingFee <= 99, "Requested marketing fee
not within acceptable range.");
    require(0 <= _devFee && _devFee <= 99, "Requested marketing fee not within
acceptable range.");
    require(0 <= _devFee && _treasuryFee <= 99, "Requested marketing fee not
within acceptable range.");
    require(0 <= _sellFeeIncrease && _sellFeeIncrease <= 99, "Requested sell fee
increase not within acceptable range.");
    require(0 < _marketingFee + _liquidityFee, "Total fee amount must be
strictly positive.");

    rewardsFee = _rewardsFee;
    liquidityFee = _liquidityFee;
    marketingFee = _marketingFee;
    devFee = _devFee;
    TreasuryFee = _treasuryFee;
    sellFeeIncrease = _sellFeeIncrease;
    totalFees = _rewardsFee + _liquidityFee + _marketingFee + _treasuryFee +
_devFee;

    emit SetFees( marketingFee, TreasuryFee, devFee);
}
```

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.

Contract Diagnostics

● Critical ● Medium ● Minor

Severity	Code	Description
●	L01	Public Function could be Declared External
●	L02	State Variables could be Declared Constant
●	L03	Redundant Statements
●	L04	Conformance to Solidity Naming Conventions
●	L07	Missing Events Arithmetic
●	L08	Tautology or Contradiction
●	L09	Dead Code Elimination
●	L12	Using Variables before Declaration
●	L13	Divide before Multiply Operation
●	L14	Uninitialized Variables in Local Scope

L01 - Public Function could be Declared External

Criticality	minor
Location	contract.sol#L82,96,101,126,130,134,138,146,151,155,160,166,171,299,580,587,597,613,631,648,655,676,696,706,838,921

Description

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

```
buybackStuckBNB
planBurn
setSwapTokensAtAmount
setTradeRestrictions
setFees
setDistributionCriteria
updateGasForProcessing
setAutomatedMarketMakerPair
updateUniswapV2Router
...
```

Recommendation

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

L02 - State Variables could be Declared Constant

Criticality	minor
Location	contract.sol#L437,247

Description

Constant state variables should be declared constant to save gas.

```
dividendsPerShareAccuracyFactor
deadAddress
```

Recommendation

Add the constant attribute to state variables that never change.

L03 - Redundant Statements

Criticality	minor
Location	contract.sol#L875,876,877

Description

Detect the usage of redundant statements that have no effect.

```
ARABIANSHINJA
```

Recommendation

Remove redundant statements if they congest code but offer no value.

L04 - Conformance to Solidity Naming Conventions

Criticality	minor
Location	contract.sol#L19,82,275,223,224,233,235,580,587,655,676,696,706,797,838,843, 452

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.

```
TreasuryFee
_burnAmount
_burnDenominator
_burnNumerator
_minutes
_shouldBurn
_swapTokensAtAmount
_maxWallet
_maxTx
...
```

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#L275,280,580

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.

```
antiBotDuration = _antiBotDuration
totalShares = totalShares - shares[shareholder].amount + amount
minPeriod = _minPeriod
```

Recommendation

Emit an event for critical parameter changes.

L08 - Tautology or Contradiction

Criticality	minor
Location	contract.sol#L676

Description

Detects expressions that are tautologies or contradictions. For instance, an uint variable will always be greater than or equal to zero.

```
require(bool,string)(0 <= _rewardsFee && _rewardsFee <= 5,Requested rewardsFee
fee not within acceptable range.)
require(bool,string)(0 <= _devFee && _devFee <= 99,Requested marketing fee not
within acceptable range.)
require(bool,string)(0 <= _marketingFee && _marketingFee <= 99,Requested
marketing fee not within acceptable range.)
require(bool,string)(0 <= _sellFeeIncrease && _sellFeeIncrease <= 99,Requested
sell fee increase not within acceptable range.)
require(bool,string)(0 <= _liquidityFee && _liquidityFee <= 5,Requested
liquidity fee not within acceptable range.)
require(bool,string)(0 <= _devFee && _treasuryFee <= 99,Requested marketing fee
not within acceptable range.)
```

Recommendation

Fix the incorrect comparison by changing the value type or the comparison.

L09 - Dead Code Elimination

Criticality	minor
Location	contract.sol#L195,213

Description

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

```
_setupDecimals
_burn
```

Recommendation

Remove unused functions.

L12 - Using Variables before Declaration

Criticality	minor
Location	contract.sol#L760

Description

The contract is using a variable before the declaration. This is usually happening either if it has not been declared yet or the variable has been declared in a different scope.

```
fee
burnFees
```

Recommendation

The variables should be declared before any usage of them.

L13 - Divide before Multiply Operation

Criticality	minor
Location	contract.sol#L856,428

Description

Performing divisions before multiplications may cause lose of prediction.

```
maxWallet = 20 * TOTAL_SUPPLY / 1000 * (DECIMALS)
swapTokensAtAmount = 5 * TOTAL_SUPPLY / 1e4 * (DECIMALS)
maxTx = 5 * TOTAL_SUPPLY / 1000 * (DECIMALS)
treasurytokens = tokens * TreasuryFee / totalFees
devtokens = tokens * devFee / totalFees
marketingtokens = tokens * marketingFee / totalFees
halfLPTokens = LPtokens / 2
```

Recommendation

The multiplications should be prior to the divisions.

L14 - Uninitialized Variables in Local Scope

Criticality	minor
Location	contract.sol#L766

Description

The are variables that are defined in the local scope and are not initialized.

```
burnFees_scope_1
fee_scope_0
```

Recommendation

All the local scoped variables should be initialized.

Contract Functions

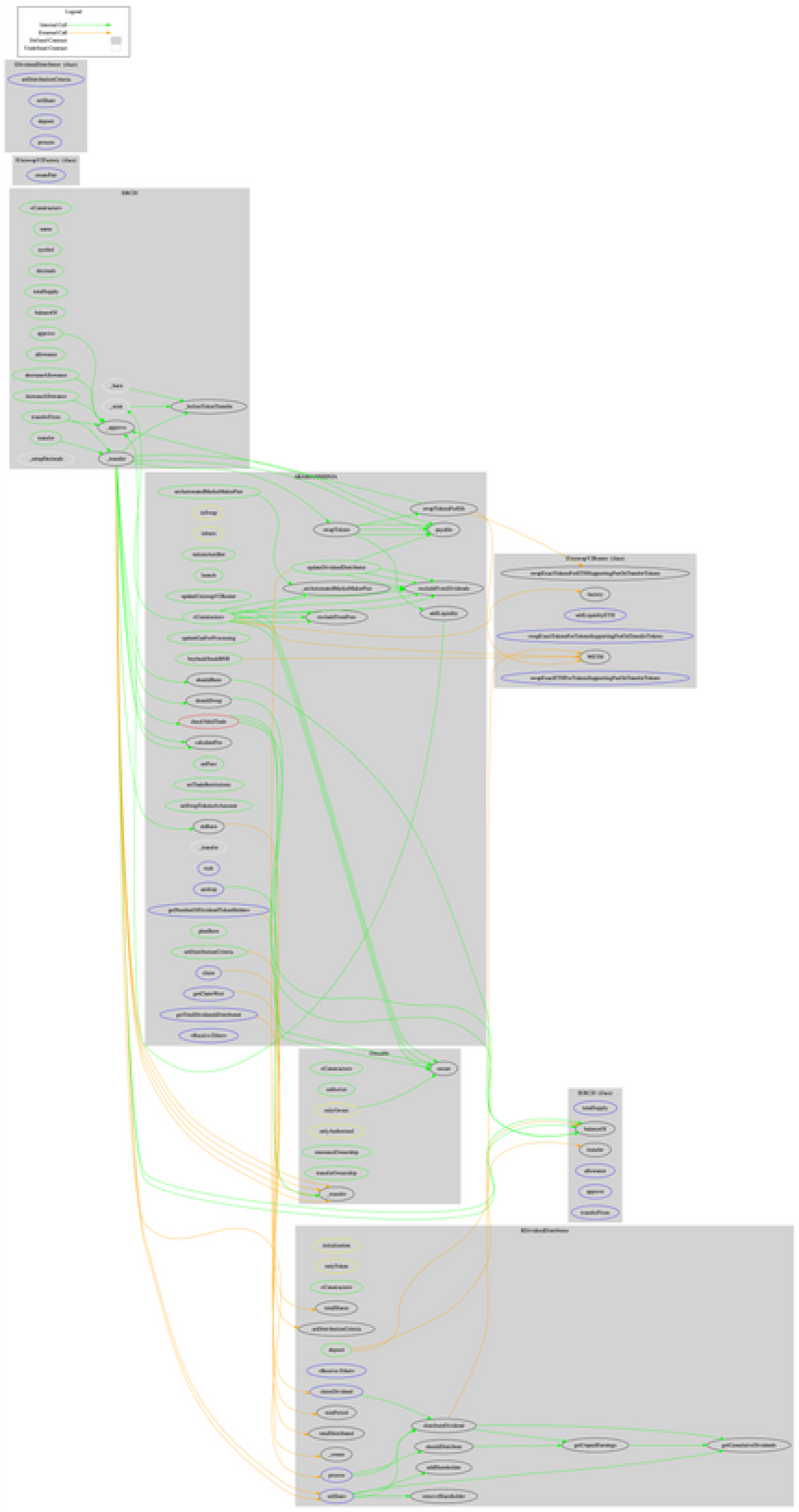
Contract	Type	Bases		
	Function Name	**Visibility**	**Mutability**	**Modifiers**
IERC20	Interface			
	totalSupply	External		-
	balanceOf	External		-
	transfer	External	✓	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	✓	-
IUniswapV2Router	Interface			
	factory	External		-
	WETH	External		-
	addLiquidityETH	External	Payable	-
	swapExactTokensForTokensSupportingFeeOnTransferTokens	External	✓	-
	swapExactTokensForETHSupportingFeeOnTransferTokens	External	✓	-
	swapExactETHForTokensSupportingFeeOnTransferTokens	External	Payable	-
IUniswapV2Factory	Interface			
	createPair	External	✓	-
IDividendDistributor	Interface			
	setDistributionCriteria	External	✓	-
	setShare	External	✓	-
	deposit	External	Payable	-
	process	External	✓	-

Ownable	Implementation			
	<Constructor>	Public	✓	-
	owner	Public		-
	authorize	Public	✓	onlyOwner
	renounceOwnership	Public	✓	onlyOwner
	transferOwnership	Public	✓	onlyOwner
ERC20	Implementation	IERC20		
	<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	✓	
	_setupDecimals	Internal	✓	
	_beforeTokenTransfer	Internal	✓	
RDividendDistributor	Implementation	IDividendDistributor		
	<Constructor>	Public	✓	-
	setDistributionCriteria	External	✓	onlyToken
	setShare	External	✓	onlyToken
	deposit	Public	Payable	-
	<Receive Ether>	External	Payable	-
	process	External	✓	-
	shouldDistribute	Internal		

	distributeDividend	Internal	✓	
	claimDividend	External	✓	-
	getUnpaidEarnings	Public		-
	getCumulativeDividends	Internal		
	addShareholder	Internal	✓	
	removeShareholder	Internal	✓	
ARABIANSHINJA	Implementation	ERC20, Ownable		
	<Constructor>	Public	✓	ERC20
	initiateAntiBot	Public	✓	onlyOwner
	launch	Public	✓	onlyOwner
	updateDividendDistributor	Public	✓	onlyOwner
	updateUniswapV2Router	Public	✓	onlyOwner
	excludeFromFees	Public	✓	onlyOwner
	excludeFromDividends	Public	✓	onlyOwner
	setAutomatedMarketMakerPair	Public	✓	onlyOwner
	_setAutomatedMarketMakerPair	Private	✓	
	updateGasForProcessing	Public	✓	onlyOwner
	setDistributionCriteria	Public	✓	onlyOwner
	getClaimWait	External		-
	getTotalDividendsDistributed	External		-
	claim	External	✓	-
	getNumberOfDividendTokenHolders	External		-
	setFees	Public	✓	onlyOwner
	setTradeRestrictions	Public	✓	onlyOwner
	setSwapTokensAtAmount	Public	✓	onlyOwner
	checkValidTrade	Private		
	_transfer	Internal	✓	
	rush	External	✓	onlyAuthorized
	calculateFee	Private	✓	
	shouldBurn	Private		
	planBurn	Public	✓	onlyAuthorized
	doBurn	Private	✓	inburn
	shouldSwap	Private		
	swapTokens	Private	✓	inSwap

	swapTokensForEth	Private	✓	
	addLiquidity	Private	✓	
	buybackStuckBNB	Public	✓	onlyAuthorized
	airdrop	External	✓	onlyOwner
	<Receive Ether>	External	Payable	-

Contract Flow



Domain Info

Domain Name	arabianshibnobi.com
Registry Domain ID	2691286184_DOMAIN_COM-VRSN
Creation Date	2022-04-23T07:15:44Z
Updated Date	2022-04-23T07:15:46Z
Registry Expiry Date	2023-04-23T07:15:44Z
Registrar WHOIS Server	whois.publicdomainregistry.com
Registrar URL	www.publicdomainregistry.com
Registrar	PDR Ltd. d/b/a PublicDomainRegistry.com
Registrar IANA ID	303

The domain has been created 4 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

There are some functions that can be abused by the owner, like manipulating fees and transferring user tokens. 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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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