



Cyberscope

Audit Report

SOUND

May 2022

Type BEP20

Network BSC

Address 0x66977bceb072604d9cafd723a301b1340b77471

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Contract Review

Contract Name	Sound
Compiler Version	v0.8.5+commit.a4f2e591
Optimization	200 runs
Licence	MIT
Explorer	https://bscscan.com/token/0x66977bceb072604d9cafdd723a301b1340b77471
Symbol	SOUND
Decimals	9
Total Supply	2,000,000,000
Domain	soundnlife.app

Source Files

Filename	SHA256
contract.sol	5be04308681037353f1443f5f27371cd921b09d3099a801cfa57e15ccc1b75bb

Audit Updates

Initial Audit	31st May 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

ULTW - Unlimited Liquidity to Team Wallet

Criticality	minor
Location	contract.sol#L429

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 `manualTransfer` function but it also happens passively on each transaction.

```
function transferTax() internal {  
    uint256 amount = _balances[address(this)];  
    _basicTransfer(address(this), taxReceiver, amount);  
}
```

Recommendation

The contract should not send all the tokens from fees to the team's wallet.

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#L280,287,308,450

Description

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

```
getCirculatingSupply  
transferOwnership  
unauthorize  
authorize
```

Recommendation

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

L02 - State Variables could be Declared Constant

Criticality

minor

Location

contract.sol#L327,328,333

Description

Constant state variables should be declared constant to save gas.

```
_totalSupply  
ZERO  
DEAD
```

Recommendation

Add the constant attribute to state variables that never change.

L04 - Conformance to Solidity Naming Conventions

Criticality

minor

Location

contract.sol#L414,434,438,442,327,328,330,331,332,333,334,335,339,340

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.

```
maxTax
taxDenominator
_allowances
_balances
_totalSupply
_decimals
_symbol
_name
ZERO
...
```

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#L414,442

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.

```
taxThreshold = _amount  
sellTax = _sellTax
```

Recommendation

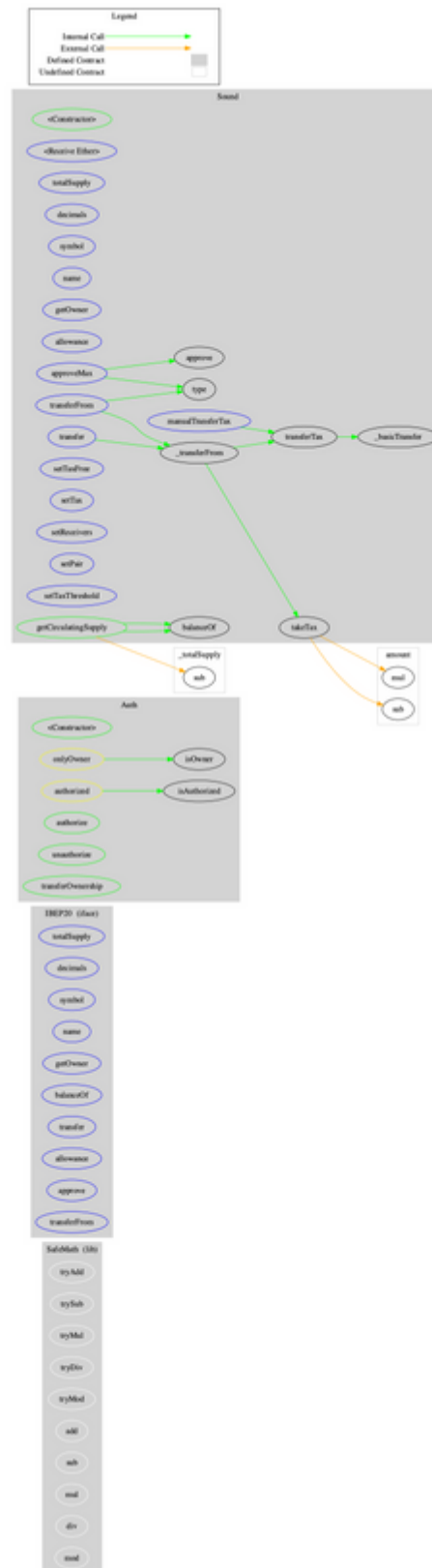
Emit an event for critical parameter changes.

Contract Functions

Contract	Type	Bases		
	Function Name	Visibility	Mutability	Modifiers
SafeMath	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		
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	✓	-

	authorize	Public	✓	onlyOwner
	unauthorize	Public	✓	onlyOwner
	isOwner	Public		-
	isAuthorized	Public		-
	transferOwnership	Public	✓	onlyOwner
Sound	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	✓	
	setTaxFree	External	✓	authorized
	setTax	External	✓	authorized
	takeTax	Internal	✓	
	transferTax	Internal	✓	
	setReceivers	External	✓	authorized
	setPair	External	✓	authorized
	setTaxThreshold	External	✓	authorized
	manualTransferTax	External	✓	authorized
	getCirculatingSupply	Public		-

Contract Flow



Domain Info

Domain Name	soundnlife.app
Registry Domain ID	490BF1707-APP
Creation Date	2022-05-27T16:01:57Z
Updated Date	2022-05-27T16:10:21Z
Registry Expiry Date	2023-05-27T16:01:57Z
Registrar WHOIS Server	whois.godaddy.com
Registrar URL	https://www.godaddy.com/
Registrar	GoDaddy.com, LLC
Registrar IANA ID	146

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

The Smart Contract analysis reported one minor severity issue. The contract owner has the authority to transfer funds to the team's wallet. A multi-wallet signing pattern will provide security against potential hacks. There is also a limit of max 10% fees.

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Coinscope audit and K.Y.C. service has been rebranded to Cyberscope.

Cyberscope 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 provide all the essential tools to assist users draw their own conclusions.



The Cyberscope team

<https://www.cyberscope.io>