



Cyberscope

Audit Report

Nut2Earn

August 2022

Type BEP20

Network BSC

Address 0xB4dA61B4B8f720876023812A282410705eb594F3

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Contract Review

Contract Name	Nut2Earn
Compiler Version	v0.7.6+commit.7338295f
Optimization	200 runs
Licence	MIT
Explorer	https://bscscan.com/token/0xB4dA61B4B8f720876023812A282410705eb594F3
Symbol	NUT
Decimals	18
Total Supply	1,000,000
Domain	

Source Files

Filename	SHA256
contract.sol	8044ed98f250c1c6ecb48a3be247977cb2dd4c6e7caf9c6219f8ff4a5c185a17

Audit Updates

Initial Audit	31st July 2022
Corrected phase 1	1st August 2022
Corrected phase 2	2nd August 2022
Corrected phase 3	5th August 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

Contract Diagnostics

● Critical ● Medium ● Informative

Severity	Code	Description
●	MTS	Manipulate Total Supply
●	L04	Conformance to Solidity Naming Conventions

MTS - Manipulate Total Supply

Criticality	informative
Location	contract.sol#L791

Description

Contract is able to manipulate total supply. Since it is a rebase token that is automatically distributed to holders, the total supply will increase with each distribution. This change will have a direct impact on the token price and marketcap.

```
function coreRebase(int256 supplyDelta) private returns (uint256) {
    uint256 epoch = block.timestamp;
    if (supplyDelta == 0) {
        emit LogRebase(epoch, _totalSupply);
        return _totalSupply;
    } else {
        if ((_totalSupply.add(uint256(supplyDelta))) >= MAX_SUPPLY) {
            // in case the rebase will cause the supply to pass MAX_SUPPLY,
            autorebase will be turned off & rebase will not happen.
            autoRebase = false;
            emit LogRebase(epoch, _totalSupply);
            return _totalSupply;
        } else {
            _totalSupply = _totalSupply.add(uint256(supplyDelta));
        }
    }
    _gonsPerFragment = TOTAL_GONS.div(_totalSupply);
    nextRebase = epoch + rebaseFrequency;
    emit LogRebase(epoch, _totalSupply);
    return _totalSupply;
}
```

Recommendation

The contract owner should carefully manage the adjustment of the circulating supply (increases or decreases), according to the token's price fluctuations.

Contract Functions

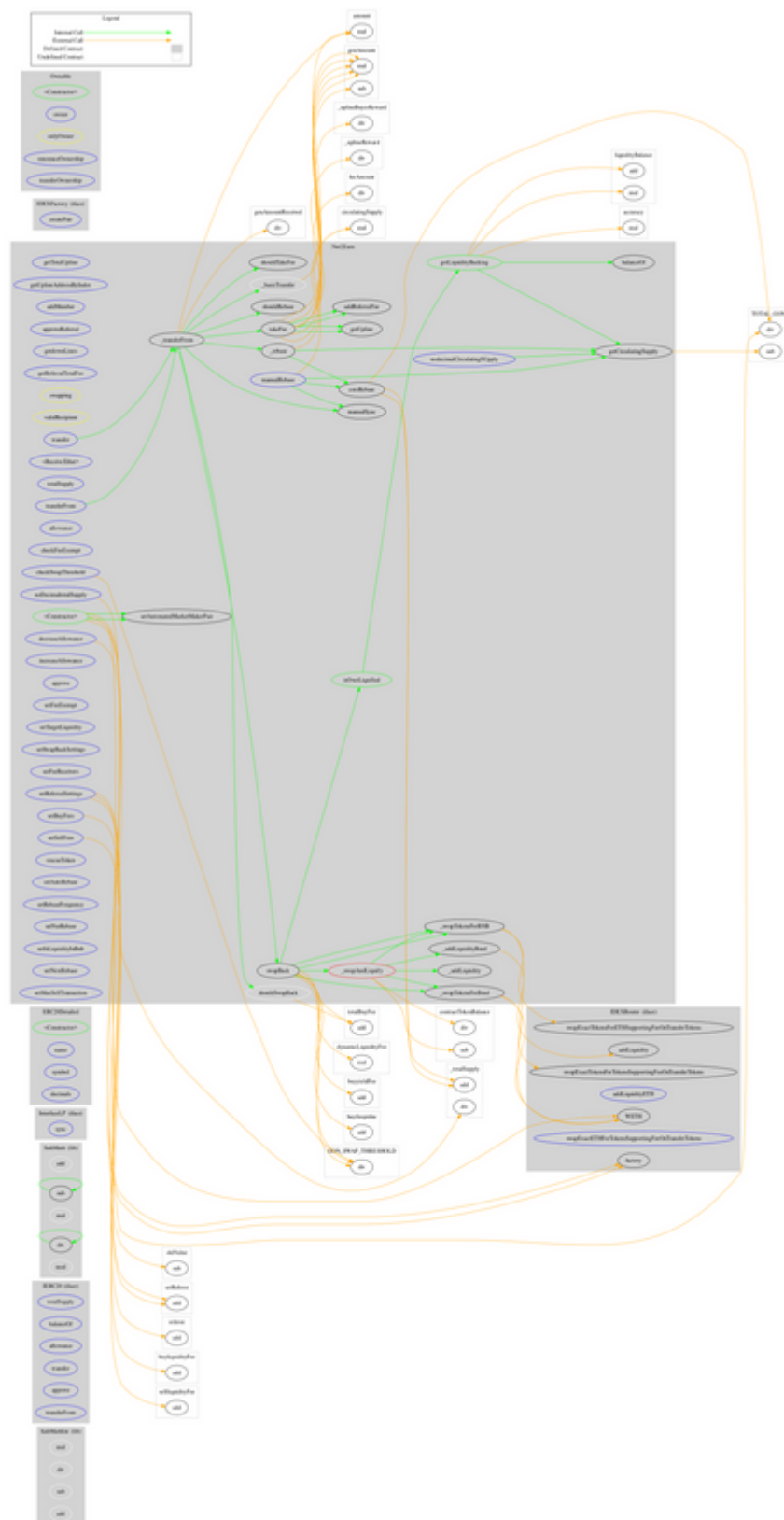
Contract	Type	Bases		
	Function Name	Visibility	Mutability	Modifiers
SafeMathInt	Library			
	mul	Internal		
	div	Internal		
	sub	Internal		
	add	Internal		
IERC20	Interface			
	totalSupply	External		-
	balanceOf	External		-
	allowance	External		-
	transfer	External	✓	-
	approve	External	✓	-
	transferFrom	External	✓	-
SafeMath	Library			
	add	Internal		
	sub	Internal		
	sub	Internal		
	mul	Internal		
	div	Internal		
	div	Internal		
	mod	Internal		
InterfaceLP	Interface			
	sync	External	✓	-
ERC20Detailed	Implementation	IERC20		

	<Constructor>	Public	✓	-
	name	External		-
	symbol	External		-
	decimals	External		-
IDEXRouter	Interface			
	factory	External		-
	WETH	External		-
	addLiquidity	External	✓	-
	addLiquidityETH	External	Payable	-
	swapExactTokensForTokensSupportingFeeOnTransferTokens	External	✓	-
	swapExactETHForTokensSupportingFeeOnTransferTokens	External	Payable	-
	swapExactTokensForETHSupportingFeeOnTransferTokens	External	✓	-
IDEXFactory	Interface			
	createPair	External	✓	-
Ownable	Implementation			
	<Constructor>	Public	✓	-
	owner	External		-
	renounceOwnership	External	✓	onlyOwner
	transferOwnership	External	✓	onlyOwner
Nut2Earn	Implementation	ERC20Detailed, Ownable		
	getTotalUpline	External		-
	getUplineAddressByIndex	External		-
	addMember	External	✓	onlyOwner
	approveReferral	External	✓	-
	getUpline	Public		-
	getdownLines	External		-
	addReferralFee	Private	✓	
	getReferralTotalFee	External		-

	<Constructor>	Public	✓	ERC20Detailed
	<Receive Ether>	External	Payable	-
	totalSupply	External		-
	noDecimaltotalSupply	External		-
	nodecimalCirculatingSupply	External		-
	allowance	External		-
	balanceOf	Public		-
	checkFeeExempt	External		-
	checkSwapThreshold	External		-
	shouldRebase	Internal		
	shouldTakeFee	Internal		
	shouldSwapBack	Internal		
	getCirculatingSupply	Public		-
	getLiquidityBacking	Public		-
	isOverLiquified	Public		-
	manualSync	Public	✓	-
	transfer	External	✓	validRecipient
	_basicTransfer	Internal	✓	
	_transferFrom	Internal	✓	
	transferFrom	External	✓	validRecipient
	_swapAndLiquify	Private	✓	
	_addLiquidity	Private	✓	
	_addLiquidityBusd	Private	✓	
	_swapTokensForBNB	Private	✓	
	_swapTokensForBusd	Private	✓	
	swapBack	Internal	✓	swapping
	takeFee	Internal	✓	
	decreaseAllowance	External	✓	-
	increaseAllowance	External	✓	-
	approve	External	✓	-
	_rebase	Private	✓	
	coreRebase	Private	✓	
	manualRebase	External	✓	onlyOwner
	setAutomatedMarketMakerPair	Public	✓	onlyOwner

	setFeeExempt	External	✓	onlyOwner
	setTargetLiquidity	External	✓	onlyOwner
	setSwapBackSettings	External	✓	onlyOwner
	setFeeReceivers	External	✓	onlyOwner
	setReferralSettings	External	✓	onlyOwner
	setBuyFees	External	✓	onlyOwner
	setSellFees	External	✓	onlyOwner
	rescueToken	External	✓	onlyOwner
	setAutoRebase	External	✓	onlyOwner
	setRebaseFrequency	External	✓	onlyOwner
	setNutRebase	External	✓	onlyOwner
	setIsLiquidityInBnb	External	✓	onlyOwner
	setNextRebase	External	✓	onlyOwner
	setMaxSellTransaction	External	✓	onlyOwner

Contract Flow



Summary

Nut2Earn is an interesting project that has a friendly and growing community. The Smart Contract uses a total supply manipulation business model to provide value for the holders. The contract Owner can access some admin functions that can not be used in a malicious way to disturb the users' transactions. There is also a limit of max 25% fees.

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



The Cyberscope team

<https://www.cyberscope.io>